ADVERSE POSSESSION LAWS IN 203 JURISDICTIONS: PROPOSALS FOR REFORM

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Abstract

Acquisitive prescription, a broader concept than adverse possession, has been adopted in at least 177 jurisdictions, and the doctrine dates back to Roman law. This Article first surveys the wide variety of acquisitive prescription laws in the world, and then examines their merits. Contrary to many prior works, this Article argues that the most justifiable form of acquisitive prescription is one that awards ownership only to those who register (or record) their ownership (or title) in good faith, but where, for technical reasons, the conveyance turns out to be invalid. The requirement of possession is redundant, even undesirable, once good faith and registration of ownership (or title) are accounted for. Possessionbased acquisitive prescription – no matter whether possessors are in good faith or bad faith – cannot be justified in countries with wellfunctioning registries if the possessor does not have title.

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Possession-based acquisitive prescription can only be justified in countries with dysfunctional registries because possession-based acquisitive prescription increases the cost of ascertaining title and discourages ex ante voluntary transactions.

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Keywords: Acquisitive prescription, registration of title, recording (recordation), hostile possession, color of title, ownership, liability rule, mechanism design

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I. INTRODUCTION

This Article surveys and analyzes a peculiar property doctrine maintained around the world. It is called "acquisitive prescription"¹ in the civil law world,² whereas it is called "adverse possession" in common law countries. It is peculiar, at least in the case of adverse possession (a sub-type of acquisitive prescription in the scheme of this Article), because adverse possessors do not have to pay "erstwhile owners"³ to acquire ownership—by definition, there are no valid sale contracts between them; erstwhile owners and adverse possessors may not even know each other's identity or existence until litigation is initiated. Acquisitive prescription (which will be used as the umbrella term for reasons explained below) is exceptional in private law because ownership changes hands without the consent of the erstwhile owners. This practice goes against the general policy in favor of voluntary transactions.⁴

What are the justifications for 177 of the 203 surveyed jurisdictions in the world to maintain acquisitive prescription in modern times? Is path dependence from Roman law (called *usucapio*) to blame? China's new civil code, enacted in May 2020,

¹ Prescription, according to Black's Law Dictionary, refers to "[t]he effect of the lapse of time in creating and destroying rights." *Prescription*, BLACK'S LAW DICTIONARY (11th ed. 2019). Acquisitive prescription thus means acquiring rights (here, property rights) after a certain period of time.

² For instance, the Quebec Civil Code (Art. 2917) and the Louisiana Civil Code (Art. 3446) use this term. Civil Code of Québec, R.S.Q. art 2917 (Can.); LA. CIV. CODE art. 3446 (1982).

³ This Article follows the draft Restatement of the Law Fourth, Property, in calling the original owner whose land has been occupied by a possessor for a long period of time the "erstwhile owner," even though in some illustrations the owner would not lose ownership. *See* RESTATEMENT (FOURTH) OF PROPERTY § 1.2.2.1 (Am. L. Inst., Preliminary Draft No. 6, 2019). Please be advised that the Restatement of the Law Fourth, Property is ongoing and the cited sections and notes in this Article have not been approved by ALI members yet. This caveat applies to all references to the draft Restatement of the Law Fourth, Property, in this Article.

⁴ But see Eduardo Moisés Peñalver & Sonia K. Katyal, Property Outlaws, 155 U. PA. L. REV. 1095, 1143–44 (2007) (explaining and justifying the re-distributive value created by property outlaws such as adverse possessors); Gregory S. Alexander, *The Social-Obligation Norm in American Property Law*, 94 CORNELL L. REV. 745, 789–90 (2009) (echoing Peñalver & Katyal's argument). *Cf. Laura Underkuffler, Open, Notorious, and Continuously Occupied: A Claim for Adverse Possession,* CORNELL J.L. & PUB. POL'Y: ISSUE SPOTTER (Nov. 16, 2011) http://jlpp.org/blogzine/opennotorious-and-continuously-occupied-a-claim-for-adverse-possession/

[[]https://perma.cc/M8RF-ESLU] (contrasting homeless adverse possessors and strategic adverse possessors).

notably contains no stipulations regarding acquisitive prescription—a conscious decision by its drafters.⁵ Is this another ill-advised innovation in private law with "Chinese characteristics" or a wise trailblazing decision?

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This Article is the most thorough survey of acquisitive prescription law in the literature thus far.⁶ It contributes to better understanding of a legal doctrine that has existed for two millennia. As to policy, this Article reconsiders the justifications offered for acquisitive prescription. Many prior studies in English focus on the adverse possession doctrine in American common law. Their analytical findings, therefore, are not readily applicable to acquisitive prescription doctrines in other countries.

This Article adopts an economic framework that aims to maximize overall economic efficiency, which, in property law, is measured by the size of the social benefits derived from allocating resources in a certain way relative to the institution costs⁷ required to realize such an allocation. An economically more desirable allocation of a resource assigns the resource in question to the party who values it more (the "higher valuer"). Allocative efficiency (in the sense of Pareto optimality) is achieved when such allocation cannot be improved.⁸ When a new policy improves resource allocation over the status quo, it is called higher allocative efficiency (in the sense of Kaldor-Hicks superiority).9 Allocative efficiency, however, pays attention only to allocation benefits, but an efficiency criterion should pay attention to costs as well. A legal system that always perfectly assigns resources to their highest valuers could be very expensive. Allocative efficiency is not worth pursuing if the information and transaction costs (the two components of institution cost) incurred are prohibitively high. Thus, the most efficient (in the Kaldor-Hicks sense) property regime is one that

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⁵ WEIXING SHEN, PRINCIPLES OF PROPERTY LAW 223 (2008).

⁶ For another large-scale comparative project on adverse possession law, see generally Giuseppe Dari-Mattiacci, Carmine Guerriero & Zhenxing Huang, *The Property-Contract Balance*, 172 J. INSTITUTIONAL & THEORETICAL ECON. 40 (2016) (examining data from 126 jurisdictions and analyzing an imprtant trade-off between protecting property rights and enhancing reliance on contracts).

⁷ Many people may think that "institutional costs" reads better. I follow Steven Cheung, who invented this term, in using institution costs. *See* Steven N.S. Cheung, *The Transaction Costs Paradigm*, 36 ECON. INQUIRY 514, 515 (1998).

⁸ ROBERT COOTER & THOMAS ULEN, LAW AND ECONOMICS 14 (6th ed. 2012).

⁹ See RICHARD A. POSNER, THE ECONOMICS OF JUSTICE 91–92 (1983); Lee Anne Fennell, *The Problem of Resource Access*, 126 HARV. L. REV. 1472, 1494 (2013); Henry E. Smith, *Property and Property Rules*, 79 N.Y.U. L. REV. 1719, 1786–87 (2004).

creates the greatest *net* social benefit: social allocation benefits minus institution costs.

This Article argues that acquisitive prescription that is based mostly on possession but not on registration (called adverse possession in this article), as is found in most civil and common law countries, cannot be justified on efficiency grounds in modern times, ¹⁰ regardless of whether the legal system has either a registration-of-right or recording system for land rights.¹¹ The more efficient regime should require an attempted transfer of ownership (that turns out to be defective), the registration of such a title (or ownership), and good faith. Lawmakers should update their antiquated legal doctrine or cite a non-economic justification for acquisitive prescription. In particular, American common law, in this regard, is largely inefficient.

While in the United States adverse possession is often used to resolve boundary disputes (sometimes called building encroachment),¹² this type of dispute is better left to a separate

¹⁰ But see generally EDUARDO MOISÉS PEÑALVER & SONIA K. KATYAL, PROPERTY OUTLAWS: HOW SQUATTERS, PIRATES, AND PROTESTERS IMPROVE THE LAW OF OWNERSHIP (2010) (justifying adverse possession on non-efficiency grounds).

¹¹ For comparative economic analysis of the recording system versus the registration-of-right system, see generally Benito Arruñada & Nuno Garoupa, *The Choice of Titling System in Land*, 48 J.L. & ECON. 709 (2005) (analyzing the relative costs of registration and recording titling systems).

¹² See JOSEPH WILLIAM SINGER, PROPERTY 156 (3d ed. 2010). For American cases that do not involve boundary disputes, see generally, for example, Howard v. Kunto, 477 P.2d 210 (Wash. Ct. App. 1970) (involving a defendant whose property deed described the adjacent lot but who was ultimately awarded title to the property after establishing continuity of possession); Paine v. Sexton, 37 N.E.3d 1103 (Mass. App. Ct. 2015) (holding that plaintiffs were entitled to thirty-six acres of woodland under adverse possession after extensive commercial use despite their failure to enclose the property or reduce it to cultivation). I thank Eduardo Peñalver for bringing these two cases to my attention. Howard v. Kunto is a particularly interesting case, as due to systemic surveying errors, a number of landowners in the neighborhood held deeds that describe their neighbors' land. Technically speaking, the possessors did not have even apparent title, though they had valid title to an adjacent plot. This case, I would argue, does not defeat my argument that as a general matter (in terms of law) purely possession-based acquisitive prescription is not warranted, but it reminds us of the import of having equity (as meta-law) to resolve outlier cases like *Howard v. Kunto*. For equity as meta-law, see generally Henry E. Smith, Equity as Meta-Law, 130 YALE L.J. 1050 (2021) (arguing that equity permeates fields of law and performs an important interstitial function).

doctrine ¹³ – as fifty-two jurisdictions in the world do ¹⁴ – that incorporates considerations specific to boundary disputes. Building encroachment is thus deferred for another article. With boundary disputes excluded, the scope of the adverse possession doctrine regarding good-faith possessors is limited only to situations involving color of title (defective written instrument).¹⁵

This Article is structured as follows: Part II provides separate typologies for registration-based and possession-based acquisitive prescription regimes. Part III explores the economic justifications for the several main types. Part IV concludes.

II. A COMPARATIVE OVERVIEW

This Part surveys acquisitive prescription law around the world.¹⁶ Acquisitive prescription regimes are divided into two

¹³ See generally Luke Meier, A Contextual Approach to Claim of Right in Adverse Possession Cases: On Van Valkenburgh v. Lutz, Bad Faith, and Mistaken Boundaries, 19 LEWIS & CLARK L. REV. 47, 51 (2015) (treating mistaken boundary encroaching as a separate category); Thomas J. Miceli & C.F. Sirmans, An Economic Theory of Adverse Possession, 15 INT'L REV. L. & ECON. 161, 162–64 (1995) (noting the rent-seeking problem in boundary encroachment cases).

¹⁴ See Matteo Rizzolli, Building Encroachments, 5 REV. L. & ECON. 661 (2009); Yun-chien Chang, Crossing the Line: A Comparative and Economic Analysis of Building Encroachment (forthcoming 2022) (on file with author).

¹⁵ The most efficient doctrinal design for boundary disputes is different from the design for other adverse possession disputes, for example, color of title. For countries that already have two separate doctrines, there is no obstacle in developing an efficient mechanism for each. In the common law, where color of title and boundary disputes are mixed under one doctrine, there can hardly be any mechanism that simultaneously deals perfectly with the two distinct types of disputes efficiently. This Article chooses to focus on exploring the most efficient mechanism for resolving adverse possession disputes rather than claims arising from boundary disputes.

¹⁶ This Article ignores the technical differences listed below. First, after the statute of limitations runs, some jurisdictions like Quebec (Art. 2918) and Taiwan (Art. 769) require a judicial application, see Civil Code of Québec, S.Q. 1991, c 64, art. 2918 (Can.); MÍNFĂ (民法) [CIVIL CODE] art. 769, https://law.moj.gov.tw/ENG/LawClass/LawAll.aspx?pcode=B0000001 [https://perma.cc/PL3B-SC22] (Taiwan), whereas in some countries, adverse

possessors can automatically acquire ownership after the prescription period – for instance, South Africa and some states in the United States. *See* C.G. VAN DER MERWE, M.J. DE WAAL & D.L. CAREY MILLER, PROPERTY AND TRUST LAW IN SOUTH AFRICA 230 (2002). Second, in many countries, possessors acquire ownership, while in some countries, erstwhile owners can no longer recover possession of their land, but possessors do not acquire ownership. *See, e.g., J.E. Jansen, Thieves and Squatters:*

registration-based ¹⁷ and possession-based. major types: Conceptually, the two types are mutually exclusive, but a country, such as Germany, can contain both types in its legal system. Almost all registration-based acquisitive prescription regimes also require possession, while some possession-based acquisitive prescription jurisdictions require *registration of possession*, which means the fact of someone's possession is reflected in the registration records. Registration of possession is different from registration of ownership or title for registration-based systems. If a country requires registration of ownership or title, even if it also requires possession, this article classifies it as registration-based. Thus, in my methodology, no possession-based system requires registration of ownership or title, but a registration-based system may (and in fact often does) require possession.

Acquisitive and Extinctive Prescription in European Property Law, 1 EUR. PROP. L. J. 153 (2012); DAVID HAYTON & PAUL MATTHEWS, PROPERTY AND TRUST LAW IN ENGLAND AND WALES 46-47 (2007); Jeffrey Evans Stake, The Uneasy Case for Adverse Possession, 89 GEO. L.J. 2419, 2422 n.15 (2001). The European Draft Common Frame of Reference (DCFR) VIII.-4:301(1), to prevent a gap in ownership, stipulates that "[u]pon expiry of the period required for the acquisition of ownership by continuous possession the original owner loses and the owner-possessor acquires ownership." STUDY GRP. ON A EUR. CIV. CODE & RSCH. GRP. ON EC PRIV. L., PRINCIPLES, DEFINITIONS AND MODEL RULES OF EUROPEAN PRIVATE LAW: DRAFT COMMON FRAME OF REFERENCE (DCFR) 4235 (Christian von Bar et al. eds., 2009), http://www.transformacje.pl/wp-content/uploads/2012/12/european-privatelaw_en.pdf [https://perma.cc/Y9QP-7K5Z]. That is, unless a possessor acquires ownership, an original owner does not lose ownership. Note that the DCFR covers only movable properties. The RESTATEMENT (FOURTH) OF PROPERTY § 1.2.2.1, 1.2.2.2 (Am. L. Inst., Preliminary Draft No. 6, 2019) and the accompanying comments emphasize that the statute of limitations and the requirements for adverse possession are aligned. That is, if any of the requirements for adverse possession are not met, the statute does not run. If the statute of limitations does not run, adverse possession will have no chance to apply.

¹⁷ In this Article, the "registration" in "registration-based" includes the two major types of real estate ownership information depository: registration of rights (including the Torrens version) and recording (elsewhere sometimes called recordation or registration of documents). To avoid confusion, the term "registration" in this article refers to both the registration-of-right system and the recording system, and the term "registry" refers to offices that handle registration under both systems.

A registration-of-right system "is always done in the form of a realfolium, i.e., ordered by the land registered." By contrast, a recording system "is normally done in the form of a personalfolium, i.e., ordered by the name of the respective owner." CHRISTOPH U. SCHMID & CHRISTIAN HERTEL, REAL PROPERTY LAW AND PROCEDURE IN THE EUROPEAN UNION 32 (2005). The personalfolium is called the grantor-grantee index in the United States. Some jurisdictions in the United States also have a track index.

Adverse possession should not be conflated with the property doctrines covered in this Article because possession is a precondition for adverse possession, as its name suggests. In my survey, at least one country has adopted a registration-based acquisitive prescription that does not require possession at all. And this article will further challenge the role of possession in acquisitive prescription. The adversity requirement in adverse possession is defined as nonpermissive use,¹⁸ but many countries require, for instance, a conveyance (that turns out to be defective) from the erstwhile owner qua seller to the buyer qua acquisitive prescription claimant (more on this later) that purportedly gives title. In this situation, the buyer's use is permissive, at least before the seller finds out about the defect and re-claims ownership. The buyer in this situation does not, strictly speaking, possess adversely. This Article uses the term adverse possession as an alternative label for possession-based jurisdictions that have no title requirement at all.

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The concept of (just) title is complicated and worthy of further explanation. A good start to understanding it is through the lens of the Louisiana Civil Code Article 3483: "A just title is a juridical act, *such as a sale, exchange, or donation, sufficient to transfer ownership or another real right*. The act must be *written, valid in form,* and filed for registry in the conveyance records of the parish in which the immovable is situated."¹⁹ Argentina Civil Code Article 1902 also provides a useful definition:

Just title for acquisitive prescription is the one having as a purpose the transfer of a principal real right that is exercised by possession, with the formal requirements required for its validity, when its grantor is not capable or does not have authority therefor.

The good faith required in a possessory relationship consists in *not having known, nor to have been able to know,* the lack of right thereto.

When recordable things are involved, good faith requires the previous examination of the registry documentation and

¹⁸ See SINGER, supra note 12, at 149.

¹⁹ LA. CIV. CODE art. 3483 (1982) (emphasis added).

proof, as well as performing the pertinent acts of verification established in the respective special regime.²⁰

The gist of (just) title, therefore, is that an acquisitive prescription claimant must have been a transferee in a prior conveyance. The claimant comes to claim acquisitive prescription because it turns out that a legal defect exists in the real estate conveyance. For example, a seller, due to temporary mental illness, did not have the legal capacity to transfer her ownership to a transferee; alternatively, a middleman made a mistake and as a result an ownership transfer did not become effective in the eves of the law. In the United States common law, a rule dealing with similar concerns is called "color of title"²¹ or "apparent title," according to Black's Law Dictionary.²² In this article, I opt to use "apparent title" because "color of title" is not intuitive to civil lawyers and "just title" may be misunderstood as a normative concept.²³ Apparent title conveys the idea that a transferee, based on a prior conveyance, succession, or legacy, has reason to believe that she is (entitled to be) the owner, though it turns out her ownership is void or voidable. As analyzed below, apparent title and possession, in addition to knowledge (good or bad faith), are the key elements in understanding the similarities and variances in acquisitive prescription around the world. For simplicity, below I often use "with(out) title" to mean "with(out) apparent title."

In most countries, there are acquisitive prescription regimes for both real and personal property. This Article focuses on those for

²⁰ JULIO ROMAÑACH, JR., CIVIL AND COMMERCIAL CODE OF ARGENTINA: TRANSLATED INTO ENGLISH WITH AN INTRODUCTION AND INDEX 336 (2015) (emphasis added); CÓDIGO CIVIL Y COMERCIAL [CIVIL AND COMMERCIAL CODE] art. 1902 (Arg.). Professors Aristi & Imbernón point out that:

[[]j]ust title should be understood as a contract allowing the transfer of property or any other limited real right, that is to say, on the basis of an ordinary usucapio, there must be *a contractual title that a priori is adequate to allow the acquisition*.... *the just title may be a revocable, rescindable, or relatively null one*....

RAFAEL SÁNCHEZ ARISTI & NIEVES MORALEJO IMBERNÓN, PROPERTY AND TRUST LAW IN SPAIN 110 (2013) (emphasis added).

²¹ See THOMAS W. MERRILL & HENRY E. SMITH, PROPERTY: PRINCIPLES AND POLICIES 171-72 (3d ed. 2017) (explaining color of title as existing when "a person has some document—usually a deed, will, or judicial decree—that purports to convey title but does not in fact do so because of some legal defect.").

²² *Apparent Title*, BLACK'S LAW DICTIONARY (11th ed. 2019).

²³ The Draft Common Frame of Reference uses the term "putative title." *See* Study GRP. ON A EUR. CIV. CODE & RSCH. GRP. ON EC PRIV. L., *supra* note 16, at 4192.

immovables only. In some countries, such as Taiwan (art. 66), acquisitive prescription rules for land and buildings may differ.²⁴ For simplicity, this article only summarizes rules for land. Oftentimes, within a jurisdiction, a possessor can prescribe both ownership and limited property rights.²⁵ This Article focuses only on acquisitive prescription of land ownership.²⁶

a. Registration-Based Acquisitive Prescription

Thirty-six studied jurisdictions have registration-based acquisitive prescription. Three elements are critical: registration of apparent ownership or apparent title; knowledge (good faith or bad faith); and possession (to avoid repetition, title and ownership below means apparent title and apparent ownership). To be

²⁴ MÍNFĂ (民法) [Civil Code] art. 66 (Taiwan).

²⁵ Eighty-two of the 172 jurisdictions (forty-eight percent) with possessionbased acquisitive prescription for ownership also have rules regarding acquisitive prescription for limited property rights. Only one jurisdiction that does not have acquisitive prescription for ownership has rules regarding acquisitive prescription for limited property rights—Pakistan—for prescriptive easement. *See* Easements Act, 1882, No. 5 of 1882, PAK. CODE, § 15.

²⁶ For simplicity, this Article will not discuss acquisitive prescription regarding inheritance claims and waqf. Qatar (Art. 968) and Afghanistan (Art. 2780) have possession-based prescriptive acquisition regarding inheritance claims for 33 years. *See* Qanun raqm (22) lisanat 2004 bi'iisdar alqanun almadanii [Law no. (22) of 2004 Regarding Promulgating the Civil Code] art. 968, https://www.youthpolicy.org/library/wp-

content/uploads/library/Qatar_2004_Promulgating_Civil_Code_Law_eng.pdf [https://perma.cc/EP5Z-J6HZ] (Qatar); Madani qanun (مدني قانون) [Civil Law], OFFICIAL GAZETTE NO. 353, art. 2280 (Afg.), translated in CIVIL CODE OF THE REPUBLIC OF AFGHANISTAN 295 (Afg. Legal Educ. Project trans., 2014). Qatar (Art. 967), Jordan (Art. 1183), Libya (Art. 974), and United Arab Emirates (Art. 1319) have special stipulations for waqf (prescription period being thirty or thirty-three years, much longer than that for ordinary objects). See Qanun raqm (22) lisanat 2004 bi'iisdar alqanun almadanii [Law no. (22) of 2004 Regarding Promulgating the Civil Code] art. 967 (Qatar); HISHAM R. HASHEM, THE JORDAN CIVIL CODE OF MOSLEM JURISPRUDENCE 179 (1990); LYBIAN CODE CIVIL [LIBYAN CIVIL CODE], Jarida al-Rasmiyah, art. 974, 13 Feb. 1954 (Libya); Qanun almueamalat almadaniat lidawlat al'iimarat alearabiat almutahida (قانون المعاملات المدنية لدولة الإمارات العربية المتحدة) Federal (قانون المعاملات المدنية لدولة الإمارات العربية المتحدة) Law No. 5 of 1985 On the Civil Transactions Law of the United Arab Emirates State] https://elaws.moj.gov.ae/UAE-MOJ_LC-1319, art. En/00_CIVIL%20TRANSACTIONS%20AND%20PROCEDURES/UAE-LC-En_1985-12-15_00005_Kait.html?val=EL1 [https://perma.cc/9SPT-3Z79] (U.A.E.).

En_1985-12-15_00005_Kait.html?val=EL1 [https://perma.cc/9SP1-3Z79] (U.A.E.). For an introduction to the concept of waqf, see Tang Hang Wu, *From Waqf, Ancestor Worship to the Rise of the Global Trust: A History of the Use of the Trust as a Vehicle for Wealth Transfer in Singapore*, 103 IOWA L. REV. 2263, 2277-81 (2018).

counted as registration-based, a jurisdiction must require registration of either title or ownership. Registration of merely possession, under my scheme, does not count as registration-based. The difference between registration of title and registration of ownership is that, under my scheme, the latter requires that an acquisitive prescription claimant has been registered as the owner for a certain period of time, while the former requires that the cause of registration of ownership—the title—has to be the underlying legal instrument. That is, under registration of ownership, a random registration mistake may anoint a registered owner a de jure one after the prescription period runs.²⁷

The difference between registration of title and registration of ownership may arise due to the difference in types of registries used. All countries identified as requiring registration of ownership in

 $^{^{27}}$ In a 1971 case, the German Federal Court of Justice explicitly held that the registrant does not have to explain how she becomes the nominal owner. BGH, Oct. 29, 1971, V ZR 122/68, prinz.law (Ger.) https://www.prinz.law/urteile/bgh/V_ZR_122-68 [https://perma.cc/A4JH-4TXV]; CHRISTIAN PICKER & SEBASTIAN HERRLER, J. VON STAUDINGERS, KOMMENTAR ZUM BÜRGERLICHEN GESETZBUCH MIT EINFÜHRUNGSGESETZ UND NEBENGESETZEN BUCH 3: SACHENRECHT §§ 889–902, at § 900 Rn. 14 (2019).

Table 1 appear to have a registration-of-right system, whereas many (though not all) countries identified as requiring registration of title in

Table 1 have a recording system. What type of registration system is used in a country is often not specified in the civil code. My coding of the registration system is thus unreliable. Unfortunately, The World Bank Doing Business Report (discussed below) also does not ask the registry type question directly.

I code a country as requiring registration of title or ownership based on the language in the acquisitive prescription doctrine. For instance, Spain, and the Latin American countries that emulate Spain's acquisitive prescription rules, are coded as registrationbased, and, in particular, requiring registration of title, despite the fact that Spain adopts a registration-of-right system. This is because the Spanish Civil Code (Art. 1949) stipulates that:

Ordinary prescription of ownership or rights in rem to the detriment of a third party shall not take place against a title registered in the Property Registry, unless it is pursuant to another *title which has also been registered*, and the time shall begin to run from registration of the latter.²⁸

Panama (Art. 1686), Colombia (Art. 2526), Chile (Art. 2505), Puerto Rico (Art. 1849), and Equatorial Guinea (Art. 1949), among others, have the same stipulation.²⁹ Costa Rica (Art. 861) and Nicaragua (Art. 898) have the same stipulation with a different expression.³⁰

²⁸ See CÓDIGO CIVIL [C.C.] [CIVIL CODE] art. 1949 (emphasis added).

²⁹ CÓDIGO CIVIL [C.C.] [CIVIL CODE] art. 1686 (Pan.); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 2526 (Colom.); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 2505 (Chile); P.R. LAWS ANN. tit. 31, § 5270 (1930) (P.R.); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 1949 (Eq. Guinea).

³⁰ Código Civil [Cód. Civ.] [Civil Code] art. 861 (Costa Rica); Código Civil de La República de Nicaragua [Civil Code of the Republic of Nicaragua] tit. V ch. III art. 898, La Gaceta, Diario Oficial [L.G.] 11 Dec. 2019 (Nicar.).

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Table 1 uses knowledge and types of registration to divide all jurisdictions with a registration-based system into four types. Almost all jurisdictions require possession. Each type is further explained below.

		Types of Registration				
		Registration of	Registration of			
		Apparent Title	Apparent			
			Ownership			
	Good	(1)	(2)			
	and Bad	Portugal and its	Estonia, Georgia,			
Knowledge	Faith	former colonies:	Germany, Sweden,			
U	Both	Angola, Brazil,	and Turkmenistan.			
	Allowed	Cape Verde,				
		Guinea-Bissau,				
		Macau,				
		Mozambique,				
		Sao Tome e				
		Principe, and				
		Timor-Leste.				
		TIMOI-LESIE.				
	Good	(3)	(4)			
	Faith	Argentina,	Azerbaijan,			
	Only	Bolivia, Chile,	Liechtenstein,			
	Olliy	Colombia, Costa	Slovenia, South			
		Rica, Ecuador,	Korea, Switzerland,			
		Equatorial	and Turkey.			
		Guinea, Finland,				
		Honduras, Italy,				
		Nicaragua,				
		Panama, Puerto				
		Rico, Romania,				
		Scotland, Spain.				

Table 1: Registration-Based Acquisitive Prescription: TwoDimensions

Cell (3)

Spain (Arts. 1949 and 1957),³¹ Equatorial Guinea (Arts. 1949 and 1957), and five Latin American countries – Argentina (Art. 1898), Honduras (Art. 2286), Nicaragua (Arts. 888 and 898), Panama (Art. 1694), and Puerto Rico (Art. 1857)³² – have a very similar rule. In their ordinary acquisitive prescription regimes, four elements – title, registration of title, good faith, and possession – are all required. This is registration-based acquisitive prescription. In addition, a possessor who is either bad-faith or without title has to possess for a longer time than the ordinary acquisitive prescription regime requires. This is possession-based acquisitive prescription under my scheme.

Italy (Art. 1159I) is close to the Spanish model in requiring title, its registration, and good faith, but Article 1159 of the Italian Civil Code does not explicitly require possession.³³ Nonetheless, because Article 1159 is located in the code chapter on possession, and both the preceding and the following articles (Arts. 1158 and Arts. 1159bis) on acquisitive prescription rules require possession, the possession requirement should arguably be implied in Art. 1159 to warrant Italy's inclusion in cell (3).³⁴

Chile (Arts. 2505, 2507 and 2510), Ecuador (Arts. 2406 and 2410), and Colombia (Arts. 2526, 2529 and 2531) develop a slightly different regime.³⁵ Their registration-based acquisitive prescription law also requires all four elements – title, registration of title,³⁶ good faith, and possession. Their "extra-ordinary prescription" (as it is

³¹ CÓDIGO CIVIL [C.C.] [CIVIL CODE] arts. 1949, 1957. The relevant stipulations in Spain have been implicitly replaced by the Mortgage Act. *See* S.T.S., Jan. 21, 2014 (No. 841/2013) (Spain) https://vlex.es/vid/usucapion-tabulas-regimen-aplicable-494106578 [https://perma.cc/6GLK-LEZR]. I thank Professor Vanessa Casado Pérez for this observation.

³² CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 1949 (Eq. Guinea); CÓDIGO CIVIL Y COMERCIAL [CIVIL AND COMMERCIAL CODE] art. 1898 (Arg.); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 2286 (Hond.); CÓDIGO CIVIL DE LA REPÚBLICA DE NICARAGUA [CIVIL CODE OF THE REPUBLIC OF NICARAGUA] tit. V ch. II art. 888; ch. III art. 898,; CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 1694 (Pan.); P.R. LAWS ANN. Tit. 31 § 5270 (1930) (P.R.).

³³ CODICE CIVILE [C.C.] [CIVIL CODE] arts. 1159, 1159I (It.).

³⁴ CODICE CIVILE [C.C.] [CIVIL CODE] arts. 1158, 1160 (It.).

³⁵ CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] arts. 2505, 2507, 2510 (Chile); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] arts. 2406, 2410 (Ecuador); CÓDIGO CIVIL [C.C.] [CIVIL CODE] arts. 2526, 2529, 2531 (Colom.).

 $^{^{36}}$ Note here that while Ecuador has a registration-of-right system, its civil code uses the term "registration of title."

called) is possession-based. Those without registered title, good or bad faith,³⁷ may acquire ownership by possession-based acquisitive prescription (ten years in Chile and Colombia; fifteen years in Ecuador).

Other countries that fall into cell (3) include Bolivia (Art. 134), Costa Rica (Arts. 853, 860 and 861), Finland (Code of Real Estate, Ch. 13, Sec. 10),³⁸ Romania (Arts. 930–931),³⁹ and Scotland (Prescription and Limitation Act 1973, § 1).⁴⁰

Cell (1)

Registration-based acquisitive prescription in Portugal (Art. 1294) and its former colonies – Brazil (Art. 1242 Sole Paragraph),⁴¹

⁴¹ Brazil Civil Code Art. 1242 Sole Paragraph:

The term provided in this article shall be of five years if the immovable had been acquired by onerous title, based on the records of the corresponding registry, and thereafter cancelled, when *the possessors had established their dwelling therein, or made investments of social and economic interest in the property.*

³⁷ In Ecuador (Art. 2410), a custodian is presumed to be acting in bad-faith and thus unqualified to acquire ownership by prescription, unless custodians can establish themselves as possessors by meeting the following two requirements: (1) erstwhile owners cannot prove that possessors during the prescription period recognize the former's ownership; and (2) possessors have possessed continuously without violence. CóDIGO CIVIL [CóD. CIV.] [CIVIL CODE] art. 2410.

³⁸

A person whose title to real estate has been registered and who thereafter has possessed the real estate for ten years may keep the real estate, if he at the time of acquisition did not know nor should have known that the real estate had been taken from the rightful titleholder. If no action for a better right to the real estate is brought during this time, the rightful titleholder shall forfeit his right to demand the return of the real estate.

MAAKAARI [CODE OF REAL ESTATE] 540/1995, § 10 (Fin.), *translated in* NB: Unofficial translation, Code of Real Estate, MINISTRY OF JUSTICE, FIN., https://www.finlex.fi/fi/laki/kaannokset/1995/en19950540_19980964.pdf [https://perma.cc/8D8Z-Z7CQ].

³⁹ See Catalin Gabriel Stanescu, Property and Trust Law in Romania 117 (2017).

⁴⁰ CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 134 (Bol.); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] arts. 853, 860, 861 (Costa Rica); MAAKAARI [CODE OF REAL ESTATE] 540/1995, § 10 (Fin.); CODUL CIVIL AL ROMÂNIEI [CIVIL CODE OF ROMANIA] No. 287/2009, arts. 930-31; Prescription and Limitation (Scotland) Act 1973, c. 52, § 1 (Scot.).

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Macau (Art. 1220), and Timor-Leste (Art. 1214)—require title, registration, and possession.⁴² A possessor who is good-faith (ten years), as compared to bad-faith (fifteen years), saves five years in the prescription period.

Cell (2)

Registration-based legal systems that do not require title and its registration appear to be those affected by German property law.⁴³ Germany (Art. 900) emphasizes an acquisitive prescription claimant's being registered as the owner and being in possession.⁴⁴ Georgia (Art. 167), Estonia (Law of Property Art. 123(1)), South Korea (Art. 245), and Turkmenistan (Art. 188) follow this model.⁴⁵

In the registration-based system in Sweden (Land Code Chapter 16 Section 1), which adopts a registration-of-right system with only the opposability effect, a shorter, ten-year prescription period applies if a possessor in good faith with title and has complete registration of ownership, whereas a longer, twenty-year

JULIO ROMAÑACH JR., CIVIL CODE OF BRAZIL TRANSLATED INTO ENGLISH: WITH AN INTRODUCTION, INDEX AND GLOSSARY OF SELECTED BRAZILIAN CIVIL LAW TERMS 230 (3d ed. 2015) (emphasis added); CÓDIGO CIVIL [C.C.] [CIVIL CODE] art. 1242.

⁴² CÓDIGO CIVIL [Civil Code] art. 1294, https://dre.pt/dre/legislacaoconsolidada/decreto-lei/1966-34509075 (last visited Feb. 26, 2022) (Port.); Código Civil [C.C.] [CIVIL CODE] art. 1242 (Braz.); CÓDIGO CIVIL [CIVIL CODE] art. 1220 (Mac.); CÓDIGO CIVIL [CIVIL CODE] art. 1214 (Timor-Leste).

⁴³ See Yun-chien Chang, Nuno Garoupa & Martin T. Wells, *Drawing the Legal Family Tree: An Empirical Comparative Study of* 170 *Dimensions of Property Law in* 129 *Jurisdictions*, 13 J. LEGAL ANALYSIS 231, 273 (2021) (explaining that Estonia and South Korea belong to the German legal family).

⁴⁴ The German Civil Code at Art. 900: "A person who is registered as the owner of a plot of land in the Land Register without having acquired ownership acquires ownership if the registration has existed for thirty years and he has had the plot of land in proprietary *possession* in this period." Bürgerliches Gesetzbuch [BGB] [Civil Code], § 900, para. 1, sentence 1, https://www.gesetze-im-internet.de/englisch_bgb/englisch_bgb.html [https://perma.cc/7BAE-LRE4].

⁴⁵ SAKARTVELOS SAMOKALAKO K'ODEKSI (საქართველოს სამოქალაქო კოდექსი) [CIVIL CODE] art. 167 http://extwprlegs1.fao.org/docs/pdf/geo193847ENG.pdf [https://perma.cc/9HVH-B7YZ] (Geor.); ASJAÕIGUSSEADUS [LAW OF PROPERTY ACT] RIIGI TEATAJA [RT] I 1993, 39, 590, https://www.riigiteataja.ee/akt/108072014007 [https://perma.cc/BWT4-FC7D] (Est.); Minbeob [Civil Act] art. 245 (S. Kor.); GRAZHDANSKIY KODEKS TURKMENISTANA [CIVIL CODE OF TURKMENISTAN] art. 188 (1998), https://wipolex.wipo.int/en/text/330139 [https://perma.cc/4ZV7-38XM] (Turkm.).

prescription period applies if a possessor either lacks good faith or is without title and has complete registration of ownership.⁴⁶

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Cell (4)

Slovenia, Switzerland (Art. 661), Liechtenstein (*Sachenrecht* Art. 42), and Turkey (Art. 712) are close to the German model but require that possessors be good-faith.⁴⁷

Azerbaijan (Art. 178.5) is idiosyncratic in that it is close to the Swiss model but does not explicitly require that an acquisitive prescription claimant be in possession.⁴⁸ Azerbaijan (and perhaps Italy) is the rare country that does not require possession.

b. Possession-Based Acquisitive Prescription

Costa Rica, Georgia, Finland,⁴⁹ Sweden, and Turkmenistan have registration-based but not possession-based acquisitive prescription. Another thirty-one countries listed in

⁴⁶ JORDABALK [JB] [LAND CODE] 16:1 (Swed.). *See also* Dirk Westermann & Reinhard Herrmann, *Schweden, in* SACHENRECHT IN EUROPA: SYSTEMATISCHE EINFÜHRUNGEN UND GESETZESTEXTE 493, 532, 597 (Christian Von Bar ed., 1999); ULF JENSEN, SWEDEN 25 (2010), https://www.eui.eu/Documents/DepartmentsCentres/Law/ResearchTeaching/ ResearchThemes/EuropeanPrivateLaw/RealPropertyProject/Sweden.PDF [https://perma.cc/4CWU-X9FP].

⁴⁷ SCHWEIZERISCHES ZIVILGESETZBUCH [ZGB], CODE CIVIL [CC], CODICE CIVILE [CC] [Civil Code] Dec. 10, 1907, SR 210, RS 661 (Switz.); SACHENRECHT (SR) [Property law] vom 31. art. 42 (Liech.); MEDINI KANUNU [CIVIL LAW] art. 712, https://www.mevzuat.gov.tr/mevzuatmetin/1.5.4721.pdf

[[]https://perma.cc/GSP4-JZKX] (Turk.). For debate on this doctrine in Slovenia, see Jerca Kramberger Škerl & Ana Vlahek, Property and Trust Law in Slovenia 136–37 (1st ed. 2010).

⁴⁸ AZƏRBAYCAN RESPUBLIKASININ MÜLKI MƏCƏLLƏSI [CIVIL CODE OF THE REPUBLIC OF AZERBAIJAN] art. 178.5, http://ask.org.az/wpcontent/uploads/2018/11/The-Civil-Code-of-the-Republic-of-Azerbaijan.pdf [https://perma.cc/UDD9-99WW] (Azer.).

⁴⁹ See Erkki J. Hollo, Property and Trust Law in Finland 146 (2019).

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Table 1 have both registration-based and possession-based acquisitive prescription. Ninety-four jurisdictions have only possession-based acquisitive prescription, whereas twenty-six studied jurisdictions (notably China,⁵⁰ Singapore,⁵¹ and Pakistan,⁵² among others) have neither. See

⁵⁰ See Yun-chien Chang, Property Law with Chinese Characteristics: An Economic and Comparative Analysis, 1 BRIGHAM-KANNER PROP. RTS. CONF. J. 345, 361-62 (2012).

 $^{^{51}}$ See Alvin See, Man Yip & Yihan Goh, Property and Trust Law in Singapore 297 (2018).

⁵² In Pakistan, adverse possession of ownership is against the principles of Islam. A plea of adverse possession has been declared against the injunctions of Islam by the judgment of Hon'ble Shariat Appellate Bench. Maqbool Ahmad v. Gov't of Pakistan, (1991) SCMR 2063 (Pak.).

Figure 1.

Knowledge	Apparent Title Requirement				Total
	Not required R	Required	Reduces prescription period	Spain et al. and Chile et al.*	
Good Faith	(1)	(2)	(3)	(4)	
Only	24	10	5	0	39
Good Faith <	(5)	(6)	(7)	(8)	
Bad Faith	17	0	0	0	17
Good Faith =	(9)	(10)	(11)	(12)	
Bad Faith	34	0	27	10	71
Total	75	10	32	10	127

Table 2: Typology of Possession-based Acquisitive Prescription

Note: * See Part II.A for explanations of the laws in Spain, Chile, and other countries with similar laws.

Unlike in a registration-based system, where apparent title is either required or not, in a possession-based system, apparent title could be: required, prescription-period-shortening, or not required. The American common law is a prime example. Fifteen states require color of title as an element of adverse possession, but most do not—although in some states, the statute of limitations becomes shorter with color of title.⁵³ Table 2 shows the several functions apparent title serves in possession-based acquisitive prescription (again, to avoid repetition, title below means apparent title).

More specifically, of the twenty countries in cell (11) of Table 2, twenty-six allow possessors with title to enjoy a shorter prescription period only when they are good-faith. They include Algeria (Art. 828), Greece (Arts. 1041 and 1045), Iraq (Art. 1158), Jordan (Art. 1182), and the Philippines (Arts. 1117 and 1137) to name a few.⁵⁴

⁵³ The fifteen states are Alabama, Alaska, Arizona, Colorado, Georgia, Illinois, Kentucky, Louisiana, Michigan, North Carolina, North Dakota, South Carolina, Texas, Washington, and Wisconsin. *See* RESTATEMENT (FOURTH) OF PROPERTY § 1.2.2.3 (Am. L. Inst., Preliminary Draft No. 6, 2019) (Reporters' Note).

⁵⁴ CODE CIVIL ALGERIENNE [CIVIL CODE OF ALGERIA] art. 828 (Alg.); ASTIKOS KODIKAS [A.K.] [CIVIL CODE] 3:1041, 3:1045 (Greece); Civil Code of 1953, art. 1158

That is, good-faith possessors with title enjoy a shorter prescription period, while bad-faith possessors with title, bad-faith possessors without title, and good-faith possessors without title face the same longer prescription period. Hungary (Art. 5:45) is an outlier because it does not explicitly require possessors who have title to be good-faith.⁵⁵ That is, possessors with title, good- and bad-faith alike, enjoy a shorter prescription period, while possessors without title, good- and bad-faith alike, have to wait it out for a longer time.

The five countries in cell (3) of Table 2, Indonesia (Art. 1963), Iraq (Art. 1158), Macedonia (Law on Ownership and Other Real Rights Art. 124), Serbia (The Law on Basis of Ownership and Proprietary Relations Art. 28), and Suriname (Art. 1984), allow only good-faith possessors to prescriptively acquire ownership, and those with title enjoy a shorter prescription period.⁵⁶

Cell (2) of Table 2 includes Guatemala (Arts. 620 and 633), Latvia (Arts. 999 and 1024), and Scotland (Prescription and Limitation Act 1973, Art. 2).⁵⁷ In addition, the original French Civil Code (Art. 2265) allows only good-faith possessors with title to prescriptively acquire ownership.⁵⁸ This was transplanted by Burkina Faso (Art. 2265), Comoros (Art. 2265), Ivory Coast (Art. 2265), Luxembourg (Art. 2265), Togo (Art. 2265), Mauritius (Art. 2263), and Niger (Art. 2265).⁵⁹ Belgium (Art. 2262) made a different choice, allowing not only good-faith possessors but also bad-faith possessors to

⁽Iraq); CIVIL CODE, Book III, Title V, Chapter 2, § 1117, 1137, Rep. Act 386, as amended (Phil.). See HASHEM, *supra* note 26, for a translation of Jordan Art. 1182.

⁵⁵ POLGÁRI TÖRVÉNYKÖNYV [PTK] [CIVIL CODE] 5:45 (Hung.).

⁵⁶ KITAB UNDANG-UNDANG HUKUM PERDATA [BOOK OF CIVIL LAW] art. 1963 (Indon.); Civil Code of 1953, art. 1158 (Iraq); ZAKON ZA SOPSTVENOST I DRUGI STVARNI PRAVA [Law on Ownership and Other Real Rights] art. 124 (Maced.); ZAKON O OSNOVAMA SVOJINSKOPRAVNIH ODNOSA [THE LAW ON THE BASIS OF OWNERSHIP AND PROPRIETARY RELATIONS] art. 28 https://www.paragraf.rs/propisi/zakon_o_osnovama_svojinskopravnih_odnosa .html [https://perma.cc/V5HD-LR89] (Serb.); BURGERLIJK WETBOEK [CIVIL CODE] art. 1984 (Surin.). Note that the Serbian law and the Macedonian law, at least in their English translation, are very similar in wording and structure.

⁵⁷ CÓDIGO CIVIL [CIVIL CODE] arts. 620, 633 (Guat.); CIVILIKUMS [CIVIL LAW] arts. 999, 1024, https://likumi.lv/doc.php?id=90224 [https://perma.cc/5SLG-983Z] (Lat.); Prescription and Limitation (Scotland) Act 1973, c. 52, § 1 (Scot.).

⁵⁸ CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2265 (Fr.).

⁵⁹ CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2265 (Burk. Faso); CODE CIV. [C. CIV.] [CIVIL CODE] art. 2265 (Comoros); CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2265 (Ivory Coast); CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2265 (Lux.); CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2265 (Togo); CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2263 (Mauritius); CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2265 (Niger).

prescriptively acquire after thirty years.⁶⁰ The current French Civil Code (Arts. 2272–2275) also changed to allow both good- and bad-faith possessors to acquire ownership, but a possessor in good faith and with title acquires ownership in ten years.⁶¹ So France now belongs to cell (11) of Table 2.

Cell (5) of Table 2 contains sixteen countries that require a longer prescription period for bad-faith possessors. Notably, several countries among them require the *registration of possession*. Portugal (Art. 1295) and its former colonies – for instance Timor-Leste (Art. 1215) and Macau (Art. 1220) – treat registration of possession as a precondition for possession-based acquisitive prescription, and registration of possession is a judicial procedure, before which a claimant has to be in possession for at least five years.⁶² Another model is Mexico (Art. 1152), where registration of possession appears to be an independent way to acquisitive prescription.⁶³ Also included in this group are Bulgaria (Ownership Act Art. 79), Cambodia (Art. 162), Japan (Art. 162), Poland (Art. 172), Taiwan (Arts. 769 and 770), and Ukraine (Art. 344).⁶⁴ Professor Richard Epstein advocates a two-tiered statute of limitations that requires

⁶⁰ C.CIV. (Belg.), art. 2262 ("Toutes les actions réelles sont prescrites par trente ans, sans que celui qui allègue cette prescription soit obligé d'en rapporter un titre, ou qu'on puisse lui opposer l'exception déduite de la mauvaise foi.").

⁶¹ CODE CIVIL [C. CIV.] [CIVIL CODE] arts. 2272-75 (Fr.).

⁶² CÓDIGO CIVIL [Civil Code] art. 1294 (Port.); CÓDIGO CIVIL [CIVIL CODE] art. 1295 (Timor-Leste); CÓDIGO CIVIL [CIVIL CODE] art. 1220 (Mac.).

⁶³

Immovable things are prescribed: I. In five years, when the person possesses as owner, in good faith, peacefully, continuously, and publicly. II. In five years, when the immovables have been the object of a possession recordation. III. In ten years, when they are possessed in bad faith, if the possession is in the status of an owner, peaceful, continuous, and public.

CÓDIGO CIVIL FEDERAL [CC], art. 1152, Diario Oficial de la Federación [DOF] 31-08-1928, última reformas DOF 24-12-2013, *translated in* JULIO ROMAÑACH, JR., FEDERAL CIVIL CODE OF MEXICO: TRANSLATED INTO ENGLISH, WITH AN INTRODUCTION AND INDEX 160 (2003).

⁶⁴ Zakon za sobstvenostta [Ownership Act], DARZHAVEN VESTNIK [DV] [STATE GAZETTE] No. 92 of 16 Nov. 1951, art. 79 (Bulg.); KRAMR DTH BB VENEI ([ப்ப்ப்ப்ப்) [CIVIL CODE] art. 162 (Cambodia); MINPŌ [MINPŌ] [CIV. C.] art. 162 (Japan); Kodeks cywilny [K.c.] [Civil Code], DZ.U. 1964 NR 16, POZ. 93, art. 172 (Pol.); MÍNFĂ (民法) [Civil Code] art. 769-70 (Taiwan); TSYVILNYI KODEKS UKRAYINY (Цивільний кодекс) [CIVIL CODE OF UKRAINE] art. 344, https://zakon.rada.gov.ua/go/435-15 [https://perma.cc/S2L7-RLD9] (Ukr.).

longer prescription periods for bad-faith claimants. ⁶⁵ This mechanism has been realized in these countries.

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The thirty-three jurisdictions contained in cell (9) of Table 2, by contrast, treat good- and bad-faith possessors equally in terms of prescription period. The equal treatment means these jurisdictions effectively omit the requirement regarding knowledge. That is, the distinction between good faith and bad faith, unlike in the many other jurisdictions summarized above, is not embedded in the acquisitive prescription doctrine. These jurisdictions include, e.g., California (Civil Code Art. 1007⁶⁶ and Code of Civil Procedure Arts. 318⁶⁷ and 325⁶⁸), Germany (Art. 927), Italy (Art. 1158), Kuwait (Art. 935), New Zealand, ⁶⁹ Qatar (Art. 966), Quebec (Art. 2918), ⁷⁰ Romania, ⁷¹ Slovakia (Art. 134), South Africa (Section 1 of the

⁶⁵ See Richard A. Epstein, Past and Future: The Temporal Dimension in the Law of Property, 64 WASH. U.L.Q. 667, 685-89 (1986); see also Robert C. Ellickson, Adverse Possession and Perpetuities Law: Two Dents in the Libertarian Model of Property Rights, 64 WASH. U.L.Q. 723, 733-34 (1986) (discussing and agreeing with the merit of Epstein's proposal).

 $^{^{66}}$ "Occupancy for the period prescribed by the Code of Civil Procedure as sufficient to bar any action for the recovery of the property confers a title thereto, denominated a title by prescription, which is sufficient against all" CAL. CIV. CODE § 1007 (West 2021).

 $^{^{67}}$ "No action for the recovery of real property, or for the recovery of the possession thereof, can be maintained, unless it appear that the plaintiff, his ancestor, predecessor, or grantor, was seized or possessed of the property in question, within five years before the commencement of the action." CAL. CIV. PROC. CODE § 318 (West 2021).

⁶⁸

In no case shall adverse possession be considered established under the provision of any section of this code, unless it shall be shown that the land has been occupied and claimed for the period of five years continuously, and the party or persons, their predecessors and grantors, have timely paid all state, county, or municipal taxes that have been levied and assessed upon the land for the period of five years during which the land has been occupied and claimed.

CAL. CIV. PROC. CODE § 325 (West 2021).

⁶⁹ See Gordon Williams, Property and Trust Law in New Zealand 73-74 (2011).

⁷⁰ Note that regarding immovables, Quebec Civil Code Art. 2918 recognizes "[a] person who has for 10 years possessed an immovable as its owner . . . ," while regarding movables, the next article, Art. 2919, stipulates that "[t]he possessor *in good faith* of movable property acquires the ownership of it . . . " (emphasis added). Civil Code of Québec, S.Q. 1991, c 64, arts 2918, 2919.

⁷¹ See STANESCU, supra note 39, at 116–17 (explicitly pointing out that possessors need not be in good faith).

Prescription Act 68 of 1969),⁷² South Korea (Art. 245), Switzerland (Art. 662), Tajikistan (Art. 258), and Thailand (Art. 1382).⁷³ Among them, notably, New York (Real Property Actions and Proceedings Law Art. 501) stipulates that:

For the purposes of this article:

1. Adverse possessor. A person or entity is an "adverse possessor" of real property when the person or entity occupies real property of another person or entity *with or without knowledge* of the other's superior ownership rights, in a manner that would give the owner a cause of action for ejectment.

2. Acquisition of title. An adverse possessor gains title to the occupied real property upon the expiration of the statute of limitations for an action to recover real property pursuant to subdivision (a) of section two hundred twelve of the civil practice law and rules, provided that the occupancy, as described in sections five hundred twelve and five hundred twenty-two of this article, has been *adverse, under claim of right, open and notorious, continuous, exclusive, and actual*.

3. Claim of right. A claim of right means a reasonable basis for the belief that the property belongs to the adverse possessor or property owner, as the case may be. Notwithstanding any other provision of this article, claim of right shall not be required if the owner or owners of the real property throughout the statutory period cannot be ascertained in the records of the county clerk, or the register

⁷² See VAN DER MERWE, DE WAAL & MILLER, *supra* note 16, at 231 (noting that just title and good faith have never been required).

⁷³ For the remaining statutes, see Bürgerliches Gesetzbuch [BGB] [Civil Code], § 927 (Ger.); CODICE CIVILE [C.C.] [CIVIL CODE] art. 1158 (It.); ALQANUN ALMADANIU ALKUAYTIU (القانون المدني الكويتي) [CIVIL LAW] No. 67 of 1980, art. 935 (Kuwait); Qanun raqm (22) lisanat 2004 bi'iisdar alqanun almadanii [Law no. (22) of 2004 Regarding Promulgating the Civil Code] art. 967 (Qatar); OBČIANSKY ZÁKONNÍK [CIVIL CODE], Zàkon c. 40/1963 Zb., art. 134 (Slovk.); Minbeob [Civil Act] art. 245 (S. Kor.); SCHWEIZERISCHES ZIVILGESETZBUCH [ZGB], CODE CIVIL [CC], CODICE CIVILE [CC] [Civil Code] Dec. 10, 1907, SR 210, RS 210, art. 662 (Switz.); KODEKSI GRAZDANII ÇUMHURII TOÇIKISTON (KOДЕКСИ ГРАЖДАНИИ ЧУМХУРИИ ТОЧИКИСТОН) [CIVIL CODE OF THE REPUBLIC OF ТАЈІКІSTAN] ch. 12 art. 258, https://wipolex.wipo.int/en/text/237357 (last visited Feb. 26, 2022); PRAMWL KDHĪMÄYPHÆNG LÆA PHĀŅICHÝ (ประมวลกฎหมายแห่งและพามิชั) [CIVIL AND COMMERCIAL CODE] [CCC] bk. 3 art. 1382 (Thai.). Note that Thailand (Art. 1383) has another complication that may require bad-faith possessors to possess for a longer period of time before being qualified as owners. *Id.* art. 1383.

of the county, of the county where such real property is situated, and located by reasonable means.⁷⁴

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This means that, in New York, if record owners cannot be ascertained in the registry, possessors can be bad faith, as claim of right is not required. If record owners *can* be ascertained, possessors must have a claim of right. In the case of New York, a claim of right is like a combination of good faith and color of title.⁷⁵ This is not entirely the same as the California law quoted above (Civil Code Art. 1007 and Code of Civil Procedure Arts. 318 and 325).

Cell (1) of Table 2 includes twenty-four jurisdictions, e.g., Armenia (Art. 187), Austria (Art. 1468), Belarus (Art. 235), Kazakhstan (Art. 240), Kyrgyzstan (Art. 265), the Netherlands (Book 3, Art. 99), Russia (Art. 234), Slovenia, ⁷⁶ Turkey (Art. 713), Uzbekistan (Art. 187), and Vietnam (Art. 247). ⁷⁷ In these jurisdictions, only good-faith possessors may acquire ownership by prescription, but titles are not required.

III. MODERN JUSTIFICATIONS FOR ACQUISITIVE PRESCRIPTION

Part II surveys the law on the books around the world. The prevalence of acquisitive prescription is not hard to explain. It has

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⁷⁴ N.Y. REAL PROP. ACTS. § 501 (2021) (emphasis added).

⁷⁵ This Article agrees with the draft Restatement of the Law (Fourth) on Property, that a few existing concepts related to adverse possession could be overlapping and that they have been often manipulated to reach the right results in particular cases. It is thus important to streamline the preconditions for adverse possession.

⁷⁶ See ŠKERL & VLAHEK, supra note 47, at 135.

⁷⁷ K'AGHAK'ATS'IAKAN ORENSGIRK' (PUQUPUSPUYUU OPUUAPPP) [CIVIL 187, https://www.arlis.am/documentview.aspx?docid=74658 CODE] art. [https://perma.cc/E7SS-ZZA9] (Arm.); ALLGEMEINES BÜRGERLICHES GESETZBUCH [ABGB] [CIVIL CODE] 1468 S https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Ges etzesnummer=10001622 [https://perma.cc/9Q2B-YQYP] (Austria); RAMADZIANSKI КОДЕКЅ RESPUBLIKI BIELRUŚ (Грамадзянскі кодэкс Рэспублікі Беларусь) [СІVІL CODE OF THE REPUBLIC OF BELARUS] NO. 218-Z, art. 235; QAZAQSTAN RESPWBLÏKASINIÑ АZAMATTIQ KODESKI (Қазақстан Республикасының Азаматтық кодексі) [CIVIL CODE OF THE REPUBLIC OF KAZAKHSTAN] No. 241-VI, art. 240; KIRGIZ RESPUBLIKASININ GRAJDANDIK КОДЕКSI (Кыргыз Республикасынын Граждандык кодекси) [CIVIL CODE OF THE KYRGYZ REPUBLIC] art. 265 (Kyrg.); Art. 3:99 para. 1 BW. (Neth.); GRAZHDANSKII KODEKS ROSSIISKOI FEDERATSII [GK RF] [Civil Code] art. 234 (Russ.); MEDINI KANUNU [CIVIL LAW] art. 713 (Turk.); O'zbekiston Respublikasining Fuqarolik kodeksi [Civil Code of the Republic of Uzbekistan] art. 187; Bộ LUẬT DÂN sự [CIVIL CODE], No. 91/2015/QH13, ch. II art. 247 (Viet.).

been a venerated doctrine since the Roman law, received by developed European countries when they started to build modern private law systems. The doctrine was later inherited by other countries through colonization or voluntary imitation. Lawmakers have kept or borrowed it because, to this day, a civil dispute may occasionally be resolved through the acquisitive prescription doctrine.

But how can acquisitive prescription be justified in modern times?⁷⁸ Adverse possession may have been efficient in pre-modern times, but in the twenty-first century – the age of GPS, block-chain, Google Earth, etc. – acquisitive prescription must be justified, if possible, on new grounds. This part is divided into several sections, each dealing with a particular type of acquisitive prescription regime explored in Part II.

In the following sections, when I refer to a system that requires title, I mean either (1) a country with a recording system that requires property deeds that convey ownership to be recorded or (2) a country with a registration-of-right system that requires a claimant of acquisitive prescription to be registered as an owner due to a conveyance of ownership. This title requirement is meant to broadly include other legitimate sources of ownership, such as through inheritance, but to exclude parties who record forged deeds or who have been registered as owners due to pure mistake by registries. I define title in this way due to my view that acquisitive prescription in modern times is better reserved and used to redress hardship caused by defects in an otherwise legitimate transfer of ownership, but not to give irrelevant persons a free pass to ownership.

a. Registration-Based, with Good Faith and Apparent Title

Third-party purchaser protection is one, but not the main, function of registration-based acquisitive prescription. Protecting registration-based acquisitive prescription could reduce third-party information costs. If purchasers check the information in registries but are still bound by unregistered adverse interests, registration-

⁷⁸ For a review of how scholars defended the adverse possession doctrine in the United States from the late nineteenth century to the late twentieth century, see generally John A. Lovett, *Disseisin, Doubt, and Debate: Adverse Possession Scholarship in the United States* (1881–1986), 5 TEX. A&M L. REV. 1 (2017). For discussion of the adverse possession doctrine in the specific context of Louisiana Civil Code, see John A. Lovett, *Precarious Possession*, 77 LA. L. REV. 617 (2017).

based acquisitive prescription could give purchasers a fresh start after the statute of limitations runs. Nonetheless, given that the limitation period is usually quite long, purchasers can hardly count on registration-based acquisitive prescription; thus, they still need to expend information costs. In this regard, much more useful is the public faith principle, under which purchasers relying on information contained in a registry regarding who has property rights and how a piece of land is encumbered by adverse interests will be protected against holders of unregistered adverse property interests.⁷⁹

Yet, the public faith principle is not universally adopted.⁸⁰ In the United States, for instance, purchasers are bound by adverse interests that they have actual or constructive notice of. A recorded deed is only one way to give constructive notice. An adverse interest that can be discovered with "reasonable inquiries" or "standard due diligence"⁸¹ still binds subsequent purchasers. Purchasers, or the professionals they hire, may have reasonably attempted to discover such adverse interests but fail. Registration-based acquisitive prescription is a long shot to have a fresh start, but it is better than nothing for purchasers.

The registration-based acquisitive prescription regime is better justified in its protection of nominal owners against the party from whom ownership is conveyed (here, a nominal owner is better described as a "second party," not a "third party," because a dispute arises between a pair of transacting parties, like a buyer and a seller). Especially in jurisdictions where real estate registration or recording is "constitutive," ⁸² buyers, *ex ante*, are usually aware of the importance of having their names entered in the registry. Buyers often do not have expertise to verify whether all aspects of the

⁷⁹ For the public faith principle, see SJEF VAN ERP & BRAM AKKERMANS, CASES, MATERIALS AND TEXT ON PROPERTY LAW 869 (2012). The public faith principle regarding real properties is the functional equivalent of the good faith purchase doctrine regarding personal properties—in fact, countries like China (Art. 311) merge them into one doctrine. Mínfǎ (民法) [Civil Law] (promulgated by Nat'l People's Cong., May 28, 2020), art. 311.

⁸⁰ See Yun-chien Chang, Wealth Transfer Laws in 153 Jurisdictions: An Empirical Comparative Law Approach, 102 IOWA L. REV. 1915, 1932 (2018).

⁸¹ See Restatement (Fourth) of Property § 5.4.3.2 (Am. L. Inst., Preliminary Draft No. 6, 2019).

⁸² If registration is constitutive, the transfer of ownership in land will only be completed with registration. *See* SCHMID & HERTEL, *supra* note 17, at 33. The registration-of-right system is often a de facto precondition for a constitutive effect. *See* Chang, *supra* note 80, at 1925.

transaction are sound, but they can usually discern by common sense whether their names are in the registry book. A registry in a constitutive system usually issues an ownership certificate to the registered owner.⁸³ If buyers can never rely on the official ownership certificate or registration records as a definitive sign that the sale has been consummated, transaction costs of real estate conveyance will increase significantly.⁸⁴ This function of protecting a second party is different from that of protecting a third party, because, unlike in the latter, it does not concern the inaccuracy of information regarding property rights in the registries, but rather defects that arise typically in a conveyance.

If this is indeed the case, why not make registration of ownership an immediate cure for any transactional defects? That is, why not set the statute of limitations for good faith, with-title, registrationbased acquisitive prescription at zero days? In a jurisdiction with a well-functioning registration-of-right system, a seller in a land sale must be the registered owner (and very often the actual owner). A conveyance by a self-proclaimed owner, whose name is not in the registry, to anyone will be rejected by registries. The most likely scenario in which this regime is applicable appears to be that a seller in a deal lacks the legal capacity or authority to sell, or a deed is not properly acknowledged by a notary. Here, a prescription period of zero days would entirely defeat the point of making the conveyance void or voidable in the first place. At zero days, a buyer may not have relied on the fact of being the new owner, whereas a seller or her representative does not have an opportunity to redress the problem. For instance, a textbook example would be that a seller becomes temporarily mentally ill and the contract she makes is void, making the buyer's title only an apparent one. A prescription period of zero days would render the stipulations regarding legal capacity and authority useless.

While zero days is not enough time, several decades is too much to protect registered owners. Lawmakers have to weigh two considerations, but the balance chosen by the studied jurisdictions

⁸³ Registries in eight out of the fifteen jurisdictions with available World Bank data, see *infra* Table 4, and with this acquisitive prescription regime, however, do not deliver legally binding documents that prove ownership. This does not decrease transaction and information costs. This feature of their registries suggests that this acquisitive prescription regime is not the best fit in these jurisdictions.

⁸⁴ Good faith registrants must return the land before the prescription period runs. Depending on the contents of other doctrines, these registrants may or may not be compensated for improvements made. If not, the prospect of losing investment value may lead to underinvestment in the land.

The minimal ⁸⁵ prescription periods strikes me as too long. stipulated by the sixteen jurisdictions with good-faith only, withtitle, registration-based acquisitive prescription are five years (five jurisdictions) and ten years (eleven jurisdictions). If any party is at fault, it is not buyers, as they are good-faith, i.e., the law already considers them as not questioning the validity of title for good reasons. Buyers have engaged in a genuine transaction and gone through the salient registration procedure. By contrast, sellers convey their ownership without legal capacity or authority. Sometimes, sellers may do so knowingly; sometimes, as in the case of mental illness, sellers are not at fault either. No studied jurisdiction varies the prescription period by whether sellers are at fault, whether third parties on the sellers' side are affected, or whether sellers receive reasonable consideration (such as market value).

Long acquisitive prescription periods are problematic also because good-faith registrants may sell "too early" and fail to meet the prescription requirement. Suppose a good-faith registrant has sold the thing in question after, say, three years of being registered as the owner. At the time, the statute of limitations has not run. The erstwhile owner finds out about the title defect after the statute of limitations would have run, say twelve years after the defect took place. When the erstwhile owner sues the good-faith registrant for unjust enrichment, ⁸⁶ the latter cannot draw on the acquisitive prescription doctrine as a defense, as the registrant has not been

⁸⁵ Prescription periods could be inflated by other factors. Here the minimal length is used. One such factor is whether an erstwhile owner is absent. The original French Civil Code (Art. 2265) stipulates that

[[]a] person who acquires an immovable in good faith and under a just title prescribes ownership of it by ten years, where the true owner lives on the territory of the court of appeal within whose limits the immovable is situated; and by twenty years, where he is domiciled outside of the said territory.

CODE CIVIL [C. CIV.] [CIVIL CODE] art. 2265. This was transplanted by former French colonies. *See supra* note 59. In addition, Spain (arts. 1957–58), Ecuador (Art. 2408), Colombia (Art. 2529), El Salvador (Art. 2247), among others, picked up this absentee owner rule. CóDIGO CIVIL [C.C.] [CIVIL CODE] art. 1957-58 (Spain); CóDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] arts. 2408 (Ecuador); CóDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 2529 (Colom.); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 2247 (El Sal.).

⁸⁶ A successful unjust enrichment claim essentially gets the erstwhile owner the difference between the higher prices the registrant received from the third party and the usually lower prices the registrant had paid. In jurisdictions with the public faith doctrine, the erstwhile owner cannot re-claim landownership when good-faith third parties have acquired land from registered owners.

registered as the owner for a long enough time. This may suggest that in countries with registration-based acquisitive prescription, the rule better hinges on *extinctive* prescription instead of acquisitive prescription—erstwhile owners cannot claim against good-faith registrants after a certain number of years.

Nonetheless, even when the law has switched focus from how much time the good-faith registrant is registered as the owner to how much time has elapsed since the erstwhile owner was not registered as the owner, good-faith registrants still will not be protected if the acquisitive prescription doctrine continues to require possession. Suppose the law were changed to prescribe extinctive prescription after ten years. The first purchaser, with apparent title, sells to the second purchaser after three years.⁸⁷ An additional nine years afterwards, the erstwhile owner sues the first purchaser for unjust enrichment. The first purchaser cannot draw on the protection afforded by the acquisitive prescription doctrine because she has been in possession for at most three years. As a result, the first purchaser must disgorge the presumably higher price (paid to her by the second purchaser) through an unjust enrichment action brought by the erstwhile owner. The ex-post disgorgement is simply a redistribution of wealth and is irrelevant to efficiency. Nonetheless, ante. good-faith ех purchasers/registrants have incentives to increase verification efforts to reduce the probability of losing their profits, or to withhold sales before the statute of limitations runs. The additional verification and waiting create social waste⁸⁸-by definition, being good-faith means having conducted efficient verification, so additional verification is inefficient; and waiting hinders resources flowing to higher and better use.

If this is considered a normatively undesirable result, there are three possible solutions. First, the prescription period should be much shortened, as argued above. In this scenario, the prescription

⁸⁷ As Benito Arruñada and his co-authors point out, a distinctive feature of property law is that it involves sequential exchange. When thinking about property law, one has to go beyond a two-party setting and take into account a transacting third party. *See* Benito Arruñada, *Property as Sequential Exchange: The Forgotten Limits of Private Contract*, 13 J. INST. ECON. 753 (2017); Benito Arruñada, Giorgio Zanarone & Nuno Garoupa, *Property Rights in Sequential Exchange*, 35 J.L. ECON. & ORG. 127 (2019).

⁸⁸ Note that the logic here does not apply to possession-based acquisitive prescription, as possessors are not able to sell their occupied land before becoming owners, whereas, before the legal defect is exposed by the erstwhile owner, registrants are the (nominal) owner and can transfer their property rights.

could still be acquisitive prescription and the possession requirement may not inflict much harm and arguably bring some social benefits occasionally.

Second, the law should recognize reverse tacking. One hundred and seven studied jurisdictions recognize tacking of possession, but none appear to allow reverse tacking. Tacking means that subsequent possessors can combine the possession period of previous possessors in calculating the needed prescription period.⁸⁹ Reverse tacking means that previous possessors can combine the possession period of subsequent possessors. For the first purchaser in the aforementioned hypothetical example, acquisitive prescription would be a valid defense against the original seller if reverse tacking is allowed. Here, as under the first solution, possession can still be required.

Third, the law should not require possession in registrationbased acquisitive prescription. As described above, only Azerbaijan (and perhaps Italy) does not require possession, but what goals does possession serve in a registration-based acquisitive prescription regime? If decreasing genuine buyers' transaction costs is sufficient to justify this regime in economic terms, the possession requirement incurs unnecessary social costs in verification and waiting.

The problem is whether the social costs are justified by the benefit brought by the possession requirement. The best argument for social benefit is as follows: if neither the original seller nor the purchaser with apparent title possesses the land, but a third person possesses the land, allowing the purchaser to acquire ownership via prescription does not necessarily enable her to use the land. Requiring possession ensures that the party with the apparent title will use the land, thus increasing efficiency.

That said, I still view the expected social benefits of the possession requirement as small. First, in the above scenario, keeping the land in the non-possessory original seller's hands does not enable him to use it, either. Eventually, the actual possessor may acquire ownership via the possession-based regime.

Second, though the concept of possession varies in intension and extension across jurisdictions,⁹⁰ it is conceivable that many goodfaith registrants under most definitions of possession will still fulfill

⁸⁹ Tacking is one of the key issues in *Howard v. Kunto*, see *supra* note 12.

⁹⁰ See Yun-chien Chang, The Problematic Concept of Possession in DCFR: Lessons from Law and Economics of Possession, 5 EUR. J. PROP. L. 4 (2016); Yun-chien Chang, The Economy of Concept and Possession, in LAW AND ECONOMICS OF POSSESSION 103 (Yun-chien Chang ed., 2015).

the continuous possession requirement when they are the registered owners. Put differently, good-faith registrants, believing that they are the true owners, will possess anyway. Yet in cases where goodfaith registrants have, say, sporadic possession, they will not be entitled to prescribe ownership. The registrant's case is strongest when no one currently possesses the land.

In sum, title-required, good-faith, registration-based acquisitive prescription serves an important function of reducing transaction costs on the buyer's side. Nonetheless, two fault lines persist. First, a lengthy prescription period does not seem to strike the right balance and may consequently fail to achieve the goal of saving transaction costs, by imposing a lot of risk on good-faith registrants. Second, the possession requirement appears to create more social costs than social benefits. The possession requirement, thus, should be taken out from the registration-based regime.

All jurisdictions presumably would prefer to reduce transaction costs to facilitate *voluntary* exchanges. In those with registration-ofright systems, a title-required, good-faith, registration-based acquisitive prescription doctrine can reduce transaction costs. Yet, only sixteen jurisdictions have adopted it. While possession-based acquisitive prescription could protect some of the good-faith registrants, it is not always the case. Moreover, the possession-based acquisitive prescription doctrine as of now usually requires an even longer prescription period; thus, it is not a substitute for the registration-based doctrine.

b. Registration-Based, with Bad Faith and Apparent Title

As a general matter, this article is in favor of abolishing acquisitive prescription for bad-faith possessors altogether for efficiency reasons.⁹¹ Portugal, for example, allows bad-faith registrants with title, after a longer period, to permanently become owners.⁹² The explicit accommodation of bad-faith, registrationbased acquisitive prescription is puzzling. Given that registrants have title, they must know the seller, at least at one point in time. Once they are aware of the defect, should property law encourage

⁹¹ That is, this Article does not take into account other first-order values, such as redistribution of wealth. For a more adverse possessor-friendly law on redistribution grounds, see PENALVER & KATYAL, *supra* note 10, at 148-52.

⁹² CÓDIGO CIVIL [Civil Code] art. 1294 (Port.).

registrants to wait for the prescription period to pass? Probably not, because bad-faith registrants know that their legal ownership is precarious and thus would refrain from investing on the land. If bad-faith registrants cannot prescriptively acquire ownership, nor will they be compensated for their improvement, they are likely to reach out to erstwhile owners to re-negotiate at the earliest time, either getting their money back or securing their ownership through a new agreement, both eliminating uncertainty. Bad-faith registrants' conscious decision not to bargain⁹³ will make us doubt whether they value the land more than erstwhile owners.⁹⁴

Of course, good and bad faith are not given – possessors who fail to actively verify title would be considered good-faith.⁹⁵ Here, as in other property doctrines such as the good-faith purchase and *specificatio*, ⁹⁶ bad faith should mean "know or should have known,"⁹⁷ rather than being coterminous with "know." A registrant who is simply ignorant of the title defect but could have easily figured it out should be classified as bad-faith. Such an interpretation of bad faith should be able to filter out most intentionally innocent registrants. Debating whether a possessor is good- or bad-faith in court can increase litigation cost.⁹⁸ Even though the litigation cost of proving good or bad faith is a social cost, underinvestment during the limbo of the prescription period would be a social cost as well. Moreover, presuming good or bad faith in practice resolves (or kills) much of the evidentiary issues and keeps

⁹⁶ See Yun-chien Chang, The Good-Faith Purchase Doctrine in 247 Jurisdictions, 9 EUR. PROP. L.J. 133, 136 (2020); Yun-chien Chang, An Economic and Comparative Analysis of Specificatio (the Accession Doctrine), 39 EUR. J.L. & ECON. 225 (2015).

⁹⁸ See Ben Depoorter, Adverse Possession, in PROPERTY LAW AND ECONOMICS 183, 186 (Boudewijn Bouckaert ed., 2010).

⁹³ See Thomas W. Merrill, Property Rules, Liability Rules, and Adverse Possession, 79 Nw. U.L. REV. 1122, 1135 (1985).

⁹⁴ Professor Richard Epstein puts it more colorfully: bad faith possessors "are both bad people in the individual cases and a menace in the future ...". *See* Epstein, *supra* note 65, at 686.

⁹⁵ See Jeong-Yoo Kim, Good-Faith Error and Intentional Trespassing in Adverse Possession, 24 INT'L REV. L. & ECON. 1, 2-3 (2004).

⁹⁷ All doctrines that incorporate the element of good faith have the same problem of requiring and assessing optimal good faith. The good faith purchase doctrine is a prime example and shares the same concern. *See* Giuseppe Dari-Mattiacci & Carmine Guerriero, *Law and Culture: A Theory of Comparative Variation in Bona Fide Purchase Rules*, 35 OXFORD J. LEGAL STUD. 543, 552-53 (2015); William M. Landes & Richard A. Posner, *The Economics of Legal Disputes over the Ownership of Works of Art and Other Collectibles, in* ECONOMICS OF THE ARTS: SELECTED ESSAYS 177 (Victor Ginsburgh & Pierre-Michel Menger eds., 1996); Stewart E. Sterk, *Strict Liability and Negligence in Property Theory*, 160 U. PA. L. REV. 2129 (2012).

litigation costs in check.⁹⁹ If title defects are not attributable to registrants, it seems right to me that they should be presumed good faith, while the presumption of bad faith is right when title defects are attributable to registrants.

The draft Restatement of the Law Fourth, Property, is going in another direction. Good faith and bad faith will not be distinguished in the adverse possession doctrine, but such a consideration is deferred to the law of equity and the law of restitution. In terms of results, bad-faith adverse possessors are still unlikely to become owners simply after the passage of time.¹⁰⁰ For the many studied jurisdictions that do not have a separate equity system, this approach does not fit into their civil code structure. To be sure, there are many general principles in civil codes, and unjust enrichment is often an integral part as well. Not all civil-law courts are willing or able to carve out bad-faith adverse possession from existing general principles or the law of unjust enrichment.¹⁰¹ If the case against badfaith adverse possessors is strong enough, it is more desirable for lawmakers in countries without the equity tradition to explicitly exclude bad-faith possessors and registrants from getting ownership.102

c. Possession-based, with Good Faith and Apparent Title

Protecting good-faith possessors with title, like protecting those in a registration-based system, can be well justified. These regimes are a "safety valve"¹⁰³ for the usually rigid formality requirement in real estate transactions. In jurisdictions with a recording rather than registration-of-right system, a buyer may have commissioned

⁹⁹ One more reliable proxy is to use adverse possessors' paying taxes to presume good faith.

¹⁰⁰ See Richard H. Helmholz, Adverse Possession and Subjective Intent, 61 WASH. U.L.Q. 331 (1983). See the debate surrounding Helmholz's claim in Lovett, *supra* note 78; PENALVER & KATYAL, *supra* note 10, at 250–51 n.34.

¹⁰¹ At the very least, civil law courts should draw on general principles such as abuse of right to thwart certain bad-faith possessors from becoming legal owners. Professor Henry Smith calls this approach meta-law. *See* Smith, *supra* note 12.

¹⁰² The preceding logic applies to bad-faith possessors with title but who fail to register it.

¹⁰³ See Henry E. Smith, Institutions and Indirectness in Intellectual Property, 157 U. PA. L. REV. 2083, 2128–29 (2009) (arguing that because the surveying system is subject to mistakes, a traditional equitable analysis achieves more favorable results than a pure liability-rule regime).

professional title searching but still failed to uncover a broken chain of title. A possession-based regime with the apparent title requirement is a valuable safety valve for a genuine, faultless purchaser.¹⁰⁴

The case for this type of acquisitive prescription is a little weaker than the registration-based counterpart because registration of title is not required. As shown in Table 2, ten studied jurisdictions require title in their possession-based regimes. They do not enact a registration-based system, perhaps because lawmakers also have opted for a "declaratory" registration;105 hence, lawmakers do not expect transacting parties to always register their conveyance. Indeed, among the ten jurisdictions, five are former French colonies that follow the original 1804 French Civil Code in enabling a sale contract itself to convey land ownership. According to World Bank's 2016 Doing Business data,¹⁰⁶ registries in these five countries do not deliver a legally binding document to prove ownership. With weak registries, it is pointless to require title registration. In three other countries, Guatemala, Luxembourg, 107 and Mauritius, registration has opposability effects, and only Guatemala's registry provides a legally binding document to prove ownership. Scotland also belongs to this group, but it also adopts registration-based acquisitive prescription. These examples suggest that a possessionbased regime makes sense as a safety valve for purchasers. Only Latvia's (Art. 1024) choice of this system over a registration-based system cannot be explained by the aforementioned reason.¹⁰⁸

¹⁰⁴ Title insurance will not disappear, because before the statute of limitations runs, buyers qua possessors are not protected by the acquisitive prescription regime. *See* Lee Anne Fennell, *Efficient Trespass: The Case for "Bad Faith" Adverse Possession*, 100 Nw. L. REV. 1037, 1083 (2006). On the other hand, title insurance is not a panacea, as it is unlikely to cover all the expected buyers' side profits.

¹⁰⁵ If registration is declaratory, a transfer of ownership is opposable to third parties only after registration. Nonetheless, registration is not necessary for binding parties to a sale contract. *See* SCHMID & HERTEL, *supra* note 17, at 33.

¹⁰⁶ Whether registries deliver legally binding documents to prove ownership was surveyed by the World Bank and released in November 2016 in the "Transparency of information index." *Historical Dataset with Scores*, WORLD BANK (2020),

https://www.doingbusiness.org/content/dam/doingBusiness/excel/db2020/Hi storical-data---COMPLETE-dataset-with-scores.xlsx_(last visited Feb. 26, 2022) ("Transparency of information index (0-6)" can be found in column BX).

 $^{^{107}\;}$ European University Institute (EUI), Real Property and Procedure in the European Union 37 (2005).

¹⁰⁸ CIVILIKUMS [CIVIL LAW] art. 1024.

Five countries allow only good-faith possessors to acquisitively prescribe ownership, and good-faith possessors with title enjoy a shorter prescription period. Similarly, twenty-seven countries allow both good- and bad-faith possessors to acquisitively prescribe ownership, and the good-faith ones with title enjoy a shorter prescription period. As explained above, favorable treatment to possessors with title makes sense. Nonetheless, even in this case, the prescription periods—five, seven, ten, or twenty years—appear to be too long. Why don't these thirty-two jurisdictions have title registration as a necessary condition? Unreported tables show that the choice of at least half of the jurisdictions can be explained in the same way above (registries do not issue legally binding documents to prove ownership and/or registration is not constitutive). Still, several countries could better ensure that acquisitive prescription is used wisely if possessors have to register their title.

Registration types and how well registries function lead to different efficiency judgment on which acquisitive prescription regimes are better. In a country with constitutive registration and a well-functioning registry, its possession-based regime should be upgraded to a registration-based one, with good faith, apparent title, and its registration required. In a country with a dysfunctional registry, a possession-based regime may be locally efficient. In between are countries with well-functioning registries plus declaratory registration, discussed above. These countries did not choose to induce all real estate transactions to channel through registries and do not always explicitly make registration opposable to third parties. It is reasonable for lawmakers in these countries to choose to protect buyers who have title but do not register by a possession-based acquisitive prescription regime with the title requirement.

d. Adverse Possession: Possession-based, without Apparent Title

From an economic standpoint, at the most general level, any acquisitive prescription regime, especially a possession-based one without any title requirement, has to be justified in the following ways. First, because adverse possessors value the land in question more than erstwhile owners do, 109 an acquisitive prescription regime that awards ownership to possessors increases allocative efficiency.¹¹⁰ Second, an acquisitive prescription regime can be sustained with low institution cost. The institution cost incurred by possessors (who want to utilize the land), erstwhile owners (who need to fend off trespassers), and third parties (who are potential purchasers of land from either adverse possessors or erstwhile owners) all have to be taken into account. As compared to registration-based regimes and possession-based regimes with title requirements, possession-based regimes without title requirements are more difficult to justify. The three sub-sections below thus adopt this more structured framework to guide the analysis. Sub-section 1 gauges the costs and benefits of possession-based regimes without title requirements in a country with well-functioning recording systems. The United States is the prime example.¹¹¹ Sub-section 2 explores those costs in a country with well-functioning registrationof-right systems. Germany and Taiwan are the shadow examples.¹¹² Sub-section 3 discusses countries with dysfunctional registration or recording systems.

i. In Recording Systems

1. Allocative Efficiency

Do adverse possessors always value the land more than erstwhile owners? Apparently, it is unlikely that either adverse possessors are always the higher valuer or erstwhile owners are always the higher valuer. If neither party has legal ownership and a decision-maker is thus choosing between two of equal footing, perhaps a "more likely than not" standard is sufficient to favor one

¹⁰⁹ See Ben Depoorter, Fair Trespass, 111 COLUM. L. REV. 1090, 1113 (2011); Sally Brown Richardson, Abandonment and Adverse Possession, 52 HOUS. L. REV. 1385, 1403 (2015); JAMES GORDLEY, FOUNDATIONS OF PRIVATE LAW: PROPERTY, TORT, CONTRACT, UNJUST ENRICHMENT 141 (2006). Cf. Larissa Katz, The Moral Paradox of Adverse Possession: Sovereignty and Revolution in Property Law, 55 McGILL L.J. 47, 67-70 (2010) (from agenda-setting vacancy to an individual with agenda-setting authority).

¹¹⁰ See Fennell, supra note 104, at 1064.

¹¹¹ See Benito Arruñada, Institutional Foundation of Impersonal Exchange: Theory and Policy of Contractual Registries 44 (2012).

¹¹² See *id.*; YUN-CHIEN CHANG, WEITSENG CHEN & YING-CHIEH WU, PROPERTY AND TRUST LAW IN TAIWAN 35 (2017).

party systematically. Nonetheless, given that erstwhile owners are legitimate owners and adverse possessors are trespassers to begin with, one may demand that adverse possessors face a heightened standard to establish that they are very often higher valuers and thus justify the acquisitive prescription regime on allocative efficiency grounds.

Social science evidence that adverse possessors are often the higher valuers, however, is weak and inconclusive. First, behavioral law and economics research points out that adverse possessors may experience an "endowment effect"¹¹³ after occupying and using the land for several years. Psychological studies, however, often do not distinguish between possession and ownership; thus, it is hard to tell whether the endowment effect comes from possession or ownership.¹¹⁴ Those that do try to tease out the effect from possession versus ownership find inconsistent results.¹¹⁵ Moreover, ownership is "imputed" in the lab, while possession is "felt"; thus, lab experiments, due to their constraint on this issue, may never provide strong enough evidence to pass the heightened standard. Finally, even if adverse possessors all experience strong endowment effects, they do not necessarily value the things more than the erstwhile owners, who had experienced endowment effects when they first acquired the things in question.

If a general case that adverse possessors are usually higher valuers cannot be made,¹¹⁶ whether it is the case in a narrower setting can still be explored. Again, an assessment of allocative efficiency, in this context, is a comparison of erstwhile owners' willingness to accept and possessors' willingness to pay (or,

¹¹³ See DANIEL KAHNEMAN, THINKING, FAST AND SLOW 288-99 (2011); see also Eduardo M. Peñalver, *Land Virtues*, 94 CORNELL L. REV. 821, 830 (2009) (arguing that adverse possession honors a person's psychological attachment).

¹¹⁴ See Daphna Lewinsohn-Zamir, What Behavioral Studies Can Teach Jurists About Possession and Vice Versa, in LAW AND ECONOMICS OF POSSESSION 128, 136-37 (Yun-chien Chang ed., 2015).

¹¹⁵ For an overview of the existing literature, see Eyal Zamir & Doron Teichman , Behavioral Law and Economics 209-12 (2018).

¹¹⁶ But cf. PENALVER & KATYAL, supra note 10, at 129 (noting that when the distribution of property is extremely skewed, the adverse possessors may be the higher valuer). This argument of lawbreakers placing higher value on properties can only justify bad-faith adverse possession but not good-faith adverse possession. In addition, while this argument is relevant in the adverse possession scenario that this article focuses on (an illicit possessor occupying another's land), this argument is less applicable to the modal adverse possession cases in the United States – building encroachment – as the two parties in such disputes are neighboring landowners, and their wealth may not be extremely different.

equivalently, their economic values). While the former is revealed in erstwhile owners' purchase and their refusal to deal at market value,¹¹⁷ the latter is never revealed. Professor Thomas Merrill has advocated application of the liability rule, at least when possessors are bad-faith – that is, possessors have to pay erstwhile owners to gain ownership¹¹⁸ (no studied jurisdictions adopt anything close to this). If adverse possessors in particular cases are not willing to pay market value at the time of the dispute, they are likely lowervaluers. Even if possessors are willing to pay market value, it is still unclear whether they value the land in question more than erstwhile owners do. Nevertheless, policy makers can rest assured knowing that the law is not facilitating a blatantly inefficient transfer.

The indemnification requirement could be criticized as unnecessary¹¹⁹ if transaction costs are low enough, as the two parties can bargain with each other to redress any allocative inefficiency.¹²⁰ This Coasean critique of Merrill's proposal, however, can be criticized in at least two ways. First, Professor Ward Farnsworth argues that animosity between parties generated in litigation is a deal-breaker.¹²¹ Litigating parties will not bargain over the land in question. Thus, without the liability rule design, evicted adverse possessors will not become legal owners even when they are higher valuers. Second, the mechanism design literature in economics has demonstrated that a two-party bargaining scenario with one party (an erstwhile owner) owning 100% of the thing in question while the other party (an adverse possessor) owns 0% will not ensure

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¹¹⁷ Landowners may check market prices from time to time and decide whether to unload their assets. Third parties may also contact them to offer to purchase the land in question at around market prices.

¹¹⁸ See Merrill, supra note 93, at 1152.

¹¹⁹ See Merrill, *supra* note 93, at 1151–52 (arguing that indemnification cannot be justified by allocative efficiency).

¹²⁰ But if the Coase theorem holds, the law need not re-assign entitlements via acquisitive prescription.

¹²¹ See Ward Farnsworth, Do Parties to Nuisance Cases Bargain After Judgment? A Glimpse Inside the Cathedral, 66 U. CHI. L. REV. 373, 373 (1999); Ward Farnsworth, The Empirical Accuracy and Judicial Use of the Coase Theorem (vel non), in THE ELGAR COMPANION TO RONALD H. COASE 346 (Claude Menard & Elodie Bertrand eds., 2016). But see the empirical critique of the Farnsworth idea in Yun-chien Chang & Chang-Ching Lin, Do Parties Negotiate After Trespass Litigation? An Empirical Study of Coasean Bargaining (N.Y.U. Ctr. for Law, Econ. and Org., Working Paper No. 19-06, 2019), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2805063 [https://perma.cc/GTN8-6WVD]; Yun-Chien Chang et al., Emotional Bargaining after Litigation: An Experimental Study of the Coase Theorem (2019) (unpublished manuscript) (on file with author).

allocative efficiency. ¹²² Some efficient trades will not be consummated. In short, Merrill's proposal to add an indemnification requirement increases, but does not ensure, allocative efficiency.

Professor Lee Anne Fennell has argued that bad-faith adverse possessors could be (but are not necessarily) "efficient trespass[ers]." 123 To tease out the true higher valuers, adverse possessors should demonstrate that market transaction is not feasible and erstwhile owners are aware of adverse possessors' occupation and their interest in the things in question.¹²⁴ As said above, this article is in general against bad-faith adverse possession, but I am willing to entertain the idea of "efficient trespass" in Professor Fennell's well-confined scenario.¹²⁵ Still, one wonders how many bad-faith adverse possession claims could survive in this scenario (this is an empirical question). In terms of results, Fennell's world (which does not welcome good-faith adverse possession) may be one without successful adverse possession at all. Moreover, even if a few cases pass muster, it is doubtful whether the allocative efficiency gain in these few cases could justify the transaction cost and information cost incurred by the adverse possession regime (see Part III.d.i.2.). That is, as compared to a world where there is no adverse possession allowed, a world with an adverse possession regime under which only few possessors acquire land ownership may not produce a net gain.

The only way to tease out whether erstwhile owners or adverse possessors value property more, according to the mechanism design literature in economics, is through an internal auction in which only an erstwhile owner and an adverse possessor, assigned (roughly) equal shares of ownership of the land in question, participate.¹²⁶ The

¹²² See, e.g., Roger B. Myerson & Mark A. Satterthwaite, *Efficient Mechanisms* for Bilateral Trading, 29 J. ECON. THEORY 265, 265-66 (1983).

¹²³ See Fennell, supra note 104.

¹²⁴ See Fennell, *supra* note 104, at 1040-41. See also PEÑALVER & KATYAL, *supra* note 10, at 148–52.

¹²⁵ Fennell's analogy of efficient knowing speeding to bad-faith efficient trespassing, however, may not be entirely appropriate. Unlike adversely possessing land, speeding does not involve long-term investment, and the gain from speeding itself cannot be taken away, while bad-faith trespassers may refrain from investing as, say, the crops they grow could belong to the erstwhile owners.

¹²⁶ See Peter Cramton, Robert Gibbons & Paul Klemperer, *Dissolving a Partnership Efficiently*, 55 ECONOMETRICA 615 (1987). For an introduction of the idea in general, see Ian Ayres & J.M. Balkin, *Legal Entitlements as Auctions: Property Rules*,

design of such an internal auction will induce both parties to bid honestly, and thus the auction can reveal which party is the higher valuer, who should get full ownership but have to compensate the other party.

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This proposal, however, begs the question of why adverse possessors should be awarded (any) ownership. As argued above, bad-faith adverse possessors should be discouraged. Perhaps goodfaith adverse possessors? Recall that good-faith adverse possessors here do not have title, and boundary disputes are excluded from analysis in this article. Hence, good-faith adverse possessors have to be, on the one hand, very mistaken, and, on the other hand, have spent reasonable efforts in verification, so that they are not labeled as "should have known" and thus bad-faith. The set of such goodfaith adverse possessors may be quite small. Hence, this Article does not advocate awarding adverse possessors fifty percent or so shares. Without a roughly equal share, an internal auction cannot work magic in inducing honest bidding and facilitating Pareto optimal trading. Allocative efficiency cannot be ensured as a result.

The prior literature has also discussed whether erstwhile owners' slothfulness should be "penalized" and adverse possessors' diligence should be rewarded.¹²⁷ The allocative efficiency aspect of this argument implies that the latter is the higher valuer, partly because they develop the land in question. Existing works have countered that the implicit pro-development mentality behind adverse possession regimes is not the most environmentally friendly.¹²⁸ Conservation may very well be more valuable than development.¹²⁹ Even if adverse possession regimes are re-geared to serve as a development machine, it is a blunt tool, as landowners can simply evict possessors without doing any development.¹³⁰ A

Liability Rules, and Beyond, 106 YALE L.J. 703 (1996); Ian Ayres & Eric Talley, *Solomonic Bargaining: Dividing a Legal Entitlement to Facilitate Coasean Trade*, 104 YALE L.J. 1027 (1995). For a proposal to use the internal auction in the good-faith purchase question, see Yun-chien Chang, 247 *Jurisdictions in the World Get the Good-Faith Purchase Problem Wrong: A New Economic Framework* (NYU L. & Econ. Rsch., Paper No. 19-25, 2019).

¹²⁷ See Thomas W. Merrill & Henry E. Smith, The Oxford Introductions to U.S. Law: Property 37–38 (2010); Merrill, *supra* note 93, at 1128–31.

¹²⁸ See John G. Sprankling, An Environmental Critique of Adverse Possession, 79 CORNELL L. REV. 816 (1994); Alexandra B. Klass, Adverse Possession and Conservation: Expanding Traditional Notions of Use and Possession, 77 U. COLO. L. REV. 283, 292–94 (2006); Stake, supra note 16, at 2433.

¹²⁹ See Steven Shavell, Foundations of Economic Analysis of Law 73–74 (2004).

¹³⁰ *See* Stake, *supra* note 16, at 2436.

tax imposed on vacant land may be more effective in promoting development. Then again it all boils down to whether "slothfulness" and "diligence" translate to systematic differences in economic value.

In sum, no argument is strong enough to explain and justify the broad adverse possession regime adopted now. Merrill's indemnification requirement improves the regime, but the outcome may still fail to meet a high-bar standard which requires compelling evidence that acquisitive prescription will very likely lead to higher allocative efficiency. Fennell's reform proposal helps achieve the goal of allocative efficiency, but in effect is close to getting rid of the regime altogether.

2. Institution Costs

Acquisitive prescription regimes should minimize information costs and transaction costs while maintaining the allocative benefits derived. In net, it is unclear whether a legal system with the adverse possession regime produces lower information and transaction costs than one without. The prior literature notes that adverse possession can clear stale claims, quiet title, and induce information about the identity of landowners – that is, the possibility of losing ownership due to adverse possession will force erstwhile owners to sue possessors, which enables the latter to identify the whereabouts of passive and absentee owners and negotiate with them.¹³¹ It is questionable how useful this is. Given the strict conditions of adverse possession, this regime is unlikely to clear stale claims or quiet title in many parcels. Rather, only a tiny number of plots would have a fresh start. Marketable title act, quiet title action and even rules against perpetuities are more useful in eliminating ancient interests and reduce information cost regarding who owns what property rights. It is also questionable (though an empirical answer is needed) how often a serious potential buyer cannot locate the current owner, with the help of professional middlemen. In addition, whether drawing out current owners through the process

¹³¹ See MERRILL & SMITH, supra note 127, at 37–38; Epstein, supra note 65, at 678; Merrill, supra note 93, at 1128–31; Jeffry M. Netter, Philip L. Hersch & William D. Manson, An Economic Analysis of Adverse Possession Statutes, 6 INT'L REV. L. & ECON. 217, 219 (1986).

of adverse possession is a recipe for successful trades between adverse possessors and owners is also doubtful.¹³²

Moreover, as existing works already notice, in the United States, because adverse possessors gain ownership automatically once the statute of limitations runs,¹³³ adverse possession itself introduces unrecorded interests in land and increases information cost. 134 Third-party information cost would be lower, had the law been that subsequent parties would be bound by adverse possession if an adverse possessor had brought a quiet title action and recorded the declaratory judgment. But the draft Restatement of the Law Fourth, Property, is inclined to take the position that subsequent parties would not be bound only if an adverse possessor has brought a quiet title action but failed to record the declaratory judgment. Hence, third parties who have checked the public records could be surprised-and legally defeated 135-by adverse possessors who have not brought a quiet title action. True, potential buyers who have done a field trip to the land may be able to identify adverse possession, but this hinges on real-world cues which are not always easy to know. In addition, once adverse possessors meet the requirement for adverse possession and become owners, they are not required to continue to possess in an open fashion. A field trip may even be misleading under this type of circumstance. In any way, this investigation of potential existence of adverse possession increases information costs across the board – any land could have been adversely possessed and sellers may have incentives to hide the information, so all potential buyers have to figure out whether an adverse possessor is around. Therefore, the adverse possession doctrine decreases information costs (in one aspect) in a small number of deals but increases information costs (in another aspect) in every transaction. This does not seem to be a bargain worth striking.

Assume that genuine good-faith possessors exist (the draft Restatement of the Law Fourth, Property, contains many illustrations, most of which are adapted from real cases, but almost

¹³² Also, because in fact the adverse possession doctrine in the United States is used mostly to resolve boundary disputes, it can hardly clear stale claims (as they still exist in the remainder of the neighbor's land). Difficulty in identifying a transacting partner is also not applicable, as the partner literally lives next door.

¹³³ See Klass, supra note 128, at 287 n.14.

¹³⁴ *See* Fennell, *supra* note 104, at 1062-63.

 $^{^{135}}$ See Restatement (Fourth) of Property § 1.2.2.1 (Am. L. Inst., Preliminary Draft No. 6, 2019).

all of which are in the boundary dispute context, not in this context). Is awarding ownership through adverse possession necessary to protect them? Put differently, is it necessary to give good-faith possessors and owners who worry that their ownership may be void(able) an optimal incentive to invest? I don't think so. If acquiring ownership through prescription is a necessary condition, any substantial prescription period will fail the goal of optimal investment, because every landowner will think that before the statute of limitations runs she may lose everything. A strict construction of continuous possession, where a week of renouncing possession will re-start the stop watch, is not tailor-made for the purpose of inducing optimal investment.

Good-faith adverse possessors' diligence and reliance interests¹³⁶ have to be protected, because, ex ante, every landowner in a recording system will more or less worry about the reliability of her surveyor's and lawyer's reports. Optimal investment and low transaction cost cannot be achieved if good-faith adverse possessors' investments cannot be recouped. To do so, the law of equity in common-law countries and possession-related doctrines in, for instance, Germany (Art. 996) and Taiwan (Art. 955) can readily take care of compensating good-faith adverse possessors for their necessary expenses and the value they have created.¹³⁷ This kind of indemnification requirement should suffice to induce adverse possessors' optimal investment. Possession-based acquisitive prescription, therefore, is neither necessary nor useful for promoting efficiency in countries with the recording system.

ii. In Registration-of-Right Systems

1. All or Most Real Properties Have Been Registered

In a country with the registration-of-right system, where most, if not all, land parcels are registered, or at least the land in question is registered, it is even more difficult to justify possession-based acquisitive prescription. In terms of allocative efficiency, all the preceding analysis applies. Moreover, the question of whether there

¹³⁶ See Miceli & Sirmans, supra note 13, at 161.

¹³⁷ Bürgerliches Gesetzbuch [BGB] [Civil Code], § 996; MíNFĂ (民法) [Civil Code] art. 955 (Taiwan).

are any genuine good-faith adverse possessors looms larger because in a registration-of-right system, no matter whether registration has a constitutive or opposable effect, the most updated right-holding and right-holder information is easily retrievable in registries. Who would possess a parcel for twenty years without ever bothering to check out whether she is registered as its owner? When possessors do check and realize that they are not the owner, they become badfaith. In addition, in a registration-of-right system, the contained information likely serves as the basis for levying property taxes. If everyone else pays their property taxes every year, what kind of adverse possessors could be unaware of this well-known duty while still being genuinely good-faith?¹³⁸

Institution cost rationales are also weaker in a registration-ofright system. First, a registration-of-right system does not have "stale" claims. Registration is very often constitutive or opposable, and the *realfolium* (track index) makes it clear to any party concerned who owns what. Thus, there is in general little need to quiet title, not to mention recognizing adverse possession to quiet title. Besides, adverse possessors do not have to possess in a hostile way to force erstwhile owners to identify themselves. In some countries, the former could easily locate the latter via the information saved in registries. In other countries, registries can be revamped as an information clearing house - the identity of current owners need not be revealed (for privacy or other reasons) and registries could relay potential purchasers' offers and contact information to current owners. As the World Bank's Doing Business data shows (see Table 3), at least in the largest business city, to the extent that the registration is comprehensive and reliable (which is not always the case, as shown in Table 4), most jurisdictions have policies that enable potential adverse possessors to identify current owners.

Table 3: Transparency of Land Ownership Information

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¹³⁸ Some states thus require adverse possessors to have paid taxes during the prescription period. *See* Stake, *supra* note 16, at 2424.

Who is able to obtain information on land ownership at the agency in charge of immovable property registration in the largest business city?	Frequency	%
Freely accessible by anyone	26	18
Anyone who pays the official fee	73	50
Only intermediaries and interested parties	39	27
Only intermediaries (notaries, lawyers, etc.)	3	2
Records are not publicly available	6	4
Total	147	100

- *Notes*: N=147. This table includes all jurisdictions that are both coded by this Article and have available World Bank data. Cuba, Turkmenistan, Liechtenstein, North Korea, and Monaco are not included in the World Bank data sources. Louisiana, Macau, and Scotland are sub-national jurisdictions that are omitted. South Pacific countries are included in World Bank data sources but are omitted because there is only one holistic coding of law for all the countries.
- *Source*: The World Bank Doing Business Data "Transparency of information index" released in November 2016. See WORLD BANK DATA *infra* Table 4; *supra* note 106.

In registration-of-right systems, adverse possession laws can either require adverse possessors to register their ownership once the statute of limitations runs or make registration the precondition for opposability.¹³⁹ Third parties, therefore, can simply rely on the information provided by registries and do not have to launch an onsite investigation. With such a regime, adverse possession neither increases nor decreases information costs for third parties. But that means adverse possession cannot be justified on the ground of saving institution costs.

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¹³⁹ Otherwise, the information cost-reducing function of registries will be discounted. *See* Stake, *supra* note 16, at 2442-43; RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 98 (8th ed. 2011).

2. Many Real Properties Have Not Been Registered

In some countries, not all land parcels have been registered. Lack of complete coverage may be attributable to various reasons, such as the high costs for registries to survey all parcels. It is thus hard to have a general discussion as to whether and how registered and unregistered properties should be treated separately for economic reasons. Still, a few comments are in order.

First, bad-faith adverse possession in general should be discouraged.

Second, a citizen with common sense in a country with the registration-of-right system would more or less know that the information provided by registries is authoritative and more reliable than the fact of possession.

Third, only eighteen of the 128 jurisdictions (twelve percent) with possession-based acquisitive prescription explicitly limit the object of such acquisitions to unregistered real estate.¹⁴⁰ The other

¹⁴⁰ Eighteen jurisdictions have a clear rule that acquisitive prescription applies to unregistered land only: Austria (Art. 1468); Azerbaijan (Art. 178.6), Bahrain (Art. 903 II); Benin (Art. 38); Cyprus; El Salvador (Art. 2244); Iraq (Art. 1158); Israel (Prescription Law (1958) Art. 5); Jordan (Arts. 1181-1182); Liechtenstein (Art. 34(1)); Lithuania (Art. 4.69); Ontario (Land Titles Act, R.S.O. 1990, c. L.5, sub. 51(1)); South Africa; Suriname (Art. 1984); Syria (Art. 197); Taiwan (Arts. 769–770); Turkey (Art. 713); and the United Arab Emirates (Art. 1317). See ALLGEMEINES BÜRGERLICHES GESETZBUCH [ABGB] [CIVIL CODE] § 1468 (Austria); AZƏRBAYCAN RESPUBLIKASININ MÜLKI MƏCƏLLƏSI [CIVIL CODE OF THE REPUBLIC OF AZERBAIJAN] art. 178.6 (Azer.); BI'IISDAR ALQANUN ALMADANII [CIVIL LAW] No. 19 of 2001, art. 903 (Bahr.); Loi 2013-01 du 14 août 2013 de portant code foncier etdomanial en République du Bénin [Law 2013-01 of August 14, 2014 on the Land Code and State Property in the Republic of Benin], art. 38; ANDREAS NEOCLEOUS, INTRODUCTION TO CYPRUS LAW 599 (2000); CÓDIGO CIVIL [CÓD. CIV.] [CIVIL CODE] art. 2247 (El Sal.); Civil Code of 1953, art. 1158 (Iraq); §5, Prescription Law, 5718-1958, LSI 12 129 (1958), as amended (Isr.); SACHENRECHT (SR) [Property law] vom 31. art. 34(1) (Liech.); LIETUVOS RESPUBLIKOS CIVILINIS KODEKSAS [CIVIL CODE OF THE REPUBLIC OF LITHUANIA] bk. 4 art. 69; Land Titles Act, R.S.O. 1990 c L.5, sub. 51(1) (Can. Ont.); BURGERLIJK WETBOEK [CIVIL CODE] art. 1984 (Surin.); Alqanun almadaniu alsaadir bialmarsum altashrieii raqm 84 TARIKH 18/5/1949 [THE CIVIL CODE PROMULGATED BY LEGISLATIVE DECREE NO. 84 OF MAY 18, 1949] art. 197 (Syria); MíNFA (民法) [Civil Code] art. 769-70 (Taiwan); MEDINI KANUNU [CIVIL LAW] art. 713 (Turk.); Qanun almueamalat almadaniat lidawlat al'iimarat alearabiat almutahida (قانون المعاملات المدنية لدولة الإمارات العربية المتحدة) [Federal Law No. 5 of 1985 On the Civil Transactions Law of the United Arab Emirates State] art. 1317. See NEOCLEOUS, supra note 140, at 599 (detailing Cyprus' law's exclusive application to unregistered land); VAN DER MERWE, DE WAAL & MILLER, supra note 16 (detailing the same for South Africa); HASHEM, supra note 26 (translating Jordan Arts. 1181-1182). Taiwan is one of the eighteen jurisdictions, but Taiwan now has no unregistered land. Consequently, while the Taiwanese Civil

110 jurisdictions, if in fact allowing adverse possession over registered land, should have second thoughts on the underlying justification. A registration-of-right system is expensive—a wellfunctioning one especially so. Limiting adverse possession to unregistered land only would hardly increase anyone's transaction cost and information cost by much, as anyone could easily check with low cost and get authoritative answers on whether she owns the land she possesses.

3. Dysfunctional Registries

Many countries' registries, however, are dysfunctional. There are 120 jurisdictions that: (1) are surveyed in this article; (2) are surveyed by the World Bank Doing Business Data; and (3) have any type of acquisitive prescription defined above. Table 4 shows how they fare in keeping track of land right information. Apparently, the level of functionality of these registries varies. But roughly a quarter to a third of these jurisdictions have arguably dysfunctional registries.¹⁴¹

In these jurisdictions, registration-based acquisitive prescription does not make sense, as registration information is not reliable and is incomplete. A registration-based regime may even spawn corruption, as strategic persons make their ways into registries through bribery.

By contrast, possession-based acquisitive prescription may at least reduce information cost. In jurisdictions with well-functioning registries, possession-based regimes are used to replace current owners with adverse possessors. In those with dysfunctional registries, possession-based regimes instead identify who real owners are.¹⁴² Think of two parties in such a jurisdiction dispute in

¹⁴² As Erica Field has found, in Peru, receiving a legal property title led to a 48% decrease in the fraction of households that locate entrepreneurial activities

Code has rules for adverse possession of land ownership, adverse possessors are doomed to fail.

¹⁴¹ I identify dysfunctional registries in the following way. There are eight questions in Table 4. If the answer to any question is yes, it is coded as 1; if no, 0. This "dysfunctional registry" index ranges from 0 to 8. Twenty-two percent of the 121 studied countries have the index value of 0 or 1, and thirty-seven percent of them have the index value of 0, 1, or 2. These registries are arguably dysfunctional. Only twenty-three percent of the 121 studied countries have the index value of 5 or larger.

court, each claiming to be the legal owner: one party has occupied the land for ten or fifteen years and behaved like an owner. The other party has been absent but presents documents issued by registries or registry records that suggest that she is the owner. Here the case for favoring the former is stronger, as there are many ways in which the records or documents are unreliable, while peaceful and continuous possession for many years strongly suggests that the community (which is generally more close-knit in countries with dysfunctional registries) accepts the possessor as the owner. Given that land transaction markets are not that efficient, due to the dysfunctional registries, actual use is more strongly correlated with higher-valuing. Information and transaction costs in general will not become higher because of recognizing ownership acquired through prescription, because actual possession in physical space may be what transacting parties rely on.¹⁴³

In these jurisdictions, adverse possessors are more likely to be good-faith than elsewhere. A good-faith adverse possession regime will not be pointless. Whether bad-faith adverse possession should be allowed is a more difficult question. Here, someone knows that she is not the owner of a plot she is interested in cultivating or developing. Due to the dire situation of the registry, she simply cannot find the legal owner. Even so, a possession-based regime with a reasonable prescription period still creates under-investment. As argued above, optimal investment can be attained by compensating possessors with the necessary expenses and value It can be imagined that in most countries, such created. compensation for bad-faith possessors is less generous than goodfaith possessors. Here, a Fennell-proposal-like regime may be established: bad-faith possessors should notify registries and give public notice of their adverse possession. Erstwhile owners'

inside the home and a thirty-six percent reduction in the fraction of households that report keeping individuals at home to protect property. That is, before registration is introduced and enforced, possession was considered necessary to protect properties. *See* Erica Field, *Property Rights, Community Public Goods, and Household Time Allocation in Urban Squatter Communities: Evidence from Peru*, 45 WM. & MARY L. REV. 837, 841-42 (2004).

¹⁴³ An anecdote is in order here. I hired an LL.M. student from Colombia when I visited Cornell Law School a few years ago. She informed me that the registry in Columbia is not functioning very well. Legal owners' property rights could be transferred without their authorization and then registered. To prevent this from happening, many landowners put up huge signs in front of their houses, stating that "this property is NOT for sale, for lease, or for any type of transfer." She was shocked when I told her that no developed countries have this phenomenon.

knowledge should probably not be required. The upshot for these bad-faith possessors is not landownership for free, but equal treatment as good-faith ones when it comes to compensation for necessary expenses and created value.

Surveyed Results	Number of	% of
	Jurisdictions	Jurisdictions
Registered all private land in the	55	45
largest business city†		
Registered all private land†	30	24
Mapped all private land†	36	29
Mapped all private land in the	64	52
largest business city†		
Cost of registering property is	63	52
<5% of the property value*		
Law requires all property sale	116	94
transactions be registered at		
immovable property registry to		
make them opposable to third		
parties.‡		
A specific compensation	35	29
mechanism exists to cover losses		
incurred by parties who have		
engaged in good faith in property		
transaction based on erroneous		
information certified by an		
immovable property registry? ‡		
Immovable property registries	64	52
commit to delivering a legally		
binding document that proves		
property ownership within a		
specific time frame?**		

Table 4: Functioning of Registries

- Notes: N=123, unless otherwise stated. Cuba, Turkmenistan, Liechtenstein, North Korea, and Monaco are not included in World Bank data sources. United States states, Ontario, Quebec, Macau, and Scotland are omitted sub-national jurisdictions.
- Source: World Bank Doing Business Data. * is from Registering Property; † is from the Geographic Coverage Index. ‡ is from Land Dispute Resolution Index.
 ** is from the Transparency of Information Index. The 2016 data was used.
 See supra note 106.

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e. Registration-Based, Without Apparent Title

A number of countries adopt registration-based acquisitive prescription without the apparent title requirement. I would imagine that, at least in the case of Germany, Switzerland, and South Korea, buyers without title can hardly get their names into registries.¹⁴⁴ That is, registrants who need acquisitive prescription are most likely to have title. Indeed, it is difficult to come up with a concrete example where long-term possessors whose names are recorded in registries as owners do not have title. Rare cases may arise due to crazy mistakes, but this may be better dealt with by a land registration compensation fund used in the Torrens version of the registration-of-right system (Germany already adopts this). The fund comes from fees levied along with each registered transaction, so it is like mandatory insurance among landowners. А compensation fund, but not acquisitive prescription, will not disrupt the normal operation of property law and everyday real estate transactions.

Searching from the two most comprehensive German Civil Code commentaries, the Münchener Kommentar and the Staudinger Kommentar, one will find that, among the five cases listed in these commentaries, decided by a German federal court or state court according to § 900 of the German Civil Code (regarding registration-based acquisitive prescription), four involve wrongful registration that took place in the nineteenth century. See Bayerisches Oberstes Landesgericht [BayObLG] [Bavarian Higher Regional Court] Apr. 12, 1979, 1979 Entscheidungen des Bayerischen Oberstes Landesgerichts in Zivilsachen [BayObLGZ] 104 (Ger.); Bundesgerichtshof [BGH] [Federal Court of Justice] June 30, 1971, Monatsschrift für Deutsches Recht [MDR] 915 (1971) (Ger.); BGH, Oct. 29, ZR 122/68, rechtsanwalt-krau.eu, https://rechtsanwalt-1971, V krau.de/urteilenotarwesen/bgh-urteil-vom-29-oktober-1971-v-zr-122-68 [https://perma.cc/HK86-4JHV]; Oberlandesgericht Düsseldorf [OLG Düsseldorf] [Higher State Court Düsseldorf] Nov. 8, 1995, Mitteilungen der Rheinischen Notarkammer [MittRhNotK] 223 (1996) (Ger.); CHRISTIAN PICKER & SEBASTIAN HERRLER, J. VON STAUDINGERS KOMMENTAR ZUM BÜRGERLICHEN GESETZBUCH MIT EINFÜHRUNGSGESETZ UND NEBENGESETZEN BUCH 3: SACHENRECHT §§ 889-902, at § 900 BGB margin no. 7, 14 (2019). The other case - Oberlandesgericht Hamm [OLG Hamm] [Higher State Court Hamm] May 11, 2011, Der Deutsche Rechtspfleger [Rpfleger] 600 (2011) (Ger.) – involves one heir becoming registrant pursuant to a forged will. The will only became known as forged more than thirty years after the testator died. Reinhard Gaier et al., Münchener Kommentar zum Bürgerlichen GESETZBUCH: BGB BAND 7: SACHENRECHT §§ 854-1296, at § 900 margin no. 3 (7th ed. 2017).

IV. CONCLUSION

In modern times, efficient acquisitive prescription regimes are very different from what most countries have enacted. In countries with well-functioning registration-of-right systems, a registrationbased regime is warranted. Good faith, apparent title, and registration of title should be required, but not possession. The prescription period should be shorter than that currently in place. Given that boundary disputes can be resolved in a separate doctrine, a possession-based regime is unnecessary.

As compared to countries with well-functioning registration-ofright systems, countries with reliable recording systems are more likely to have genuine good-faith adverse possessors. A registration-based system that requires good faith, apparent title, and its recordation is also warranted. A possession-based regime is unnecessary and counter-productive.

In countries with dysfunctional registries, requirements of registration of title may not be ideal, as even serious real estate transacting parties may not have checked the registry or may treat registration as unnecessary. Good faith, however, should still be a necessary condition. Possession-based acquisitive prescription may be warranted in these countries, because ownership information cannot be reliably retrieved anywhere. Genuine good-faith adverse possessors without title could very well believe that they are owners, and they cannot be easily disproved. Good-faith, continuous possession should be required.

Good-faith adverse possessors, who neither know nor should have known that they lacked title but have failed to register or record their (apparent) title, may appear sympathetic to some. This article, however, contends that there is no strong (or even weak) efficiency reason to award ownership for free simply because they are good-faith and in possession. In most studied countries, the law of equity or unjust enrichment doctrines are sufficient to protect these faultless adverse possessors.

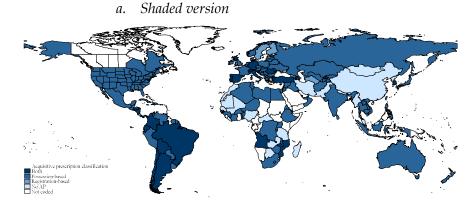
Finland and Costa Rica have acquisitive prescription regimes that are closest to efficiency for countries with well-functioning registries. They both have registration-based systems that only allow good-faith registrants who have registered their apparent title for a certain number of years. In addition, neither allows acquisitive prescription solely based on possession, without good-faith registration of apparent title. Their doctrinal requirements are not perfect, as possession, in addition to registration, is still required, and the prescription period is arguably too long. According to the World Bank's Doing Business Report data, Costa Rica's registries are not of the highest quality, but they are in the second quartile. Whether its nearly efficient law lives up to its promise depends on how registries work on the ground. One of the contributions of this article is to call attention to the fact that how registries work affects the efficiency level of private law doctrines. A number of countries that are in the lowest quartile of the Doing Business ranking have acquisitive prescription rules that are unsuitable given their dysfunctional registries. If all of them could become like Finland, with well-functioning registries and efficient laws, that would be great. But before developmental miracles take place, acquisitive prescription doctrine should be adjusted to the reality of registries as they currently exist.

Professor Richard Epstein has commented in the adverse possession context that "protection of the guilty is not an end in itself, but the inevitable and necessary price paid in discharging the primary function of protecting those with proper title." ¹⁴⁵ This paper suggests that all countries can improve their laws and thus reduce the "price . . . of protecting those with proper title."

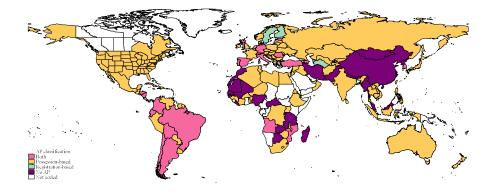
¹⁴⁵ See Epstein, supra note 65, at 678.

Figure 1: Adoption of Registration- and Possession-based Acquisitive Prescription

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b. Multi-colored version



Notes: 156 studied jurisdictions are included in the graphs. "No acquisitive prescription" means that no acquisitive prescription rule is found in the jurisdiction. "Registration-based" means that the jurisdiction only adopts registration-based acquisitive prescription. "Possession-based" means that the jurisdiction only adopts possession-based acquisitive prescription. "Both" means that the jurisdiction adopts both registration-and possession-based acquisitive prescription.

Possession-based acquisitiv	e prescription
	Good faith only
	Title not required
	Only unregistered land: Austria, Lithuania, etc. (Un)registered land: Czech, Kazakhstan, Cuba, etc.
	Title required
	(Un)registered land: Latvia, Guatemala, Togo, etc.
	Title reduces prescription period
	Only unregistered land: Iraq, Suriname. (Un)registered land: : Macedonia, Indonesia, Serbia.
	Bad faith > good faith prescription period
	Title not required, possession registration not required.
	Only unregistered land: Taiwan. (Un)registered land: Japan, Ukraine, Poland, etc.
	Title not required, possession registration required
	(Un)registered land: : Portugal, Macau, Mexico, etc.
	Bad faith = good faith prescription period
	Title not required, possession registration not required.
	Only unregistered land: Ontario, Israel, South Africa, etc.
	(Un)registered land: Ethiopia, Bosnia and Herzegovina, Kuwait, etc. Title reduces prescription period, possession registration not required.
	Only unregistered land: UAE, Jordan, Syria, etc.
	(Un)registered land: France, Libya, Egypt, etc. Unregistered title irrelevant, possession registration not required.
	Good and bad faith treated equally. Spain, Argentina, etc.
	Bad faith acquisitive prescription requires more conditions. Chile, Colombia, and Ecuador.

Figure 2: Typology of Possession-based Acquisitive Prescription

Notes: It is unclear whether there is unregistered land in the countries in the "unregistered title irrelevant" group. The civil codes inform that there is registered land, and the ordinary course is registration-based acquisitive prescription. This is an expanded classification based on Table 2. The "(Un)registered land" in the plot includes both unregistered land and registered land.