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DIVERGENCE AND CONVERGENCE AT THE INTERSECTION OF PROPERTY AND CONTRACT

GIUSEPPE DARI-MATTIACCI* & CARMINE GUERRIERO†

In this Article, we study rules that solve the conflict between the original owner and an innocent buyer of a stolen or embezzled good. These rules balance the protection of the original owner's property and the buyer's reliance on contractual exchange, thereby addressing a fundamental legal and economic trade-off. Our analysis is based on a unique, hand-collected dataset on the rules in force in 126 countries. Using this data, we document and explain two conflicting trends. There is a large amount of first-order divergence: both rules that apply to stolen goods and those that apply to embezzled goods vary widely across countries. Yet, there is also remarkable second-order convergence: virtually all legal systems protect the innocent buyer more strongly if the good was embezzled (rather than stolen) and if she purchased it in an open market, at an auction, or from a professional seller (as opposed to a private sale). We show that, while divergence is attributable to varying cultural values, convergence can be rationalized using a classic functional approach: these rules harmonize the owner's incentives to protect property and the buyer's incentives to inquire about title.

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INTRODUCTION

Most legal systems around the world simultaneously advance two fundamental goals: the protection of property and the reliability of contractual exchange.¹ When stolen or embezzled personal property is sold to an innocent buyer, however, one of them needs to be prioritized over the other. This problem, which we call the “property-contract balance,”² arises because the thief or the embezzler commonly cannot be found or is insolvent. Therefore, we face the dilemma of either returning the property to the original owner—thereby frustrating the buyer’s contractual expectations—or upholding the transfer—thereby undermining the security of ownership.³

The rules addressing this issue—that is, good-faith purchase (“GFP”) rules—are as old as law itself. They can be found in the code of Hammurabi, the Talmud, Greek law, and Roman law, and Hindustani law, and they epitomize the pervasive phenomenon of transfers through (possibly unfaithful) intermediaries such as brokers, gallerists, middlemen, agents, and Internet platforms. Unauthorized agency, forged financial instruments, and double sales of personal or real property all raise analogous, GFP-like

1. This notion is central to the large literature in law and economics that has originated from R. H. Coase, *The Problem of Social Cost*, 3 J.L. ECON. 1 (1960). Its importance, however, had long been recognized in legal scholarship, not only in the United States. *E.g.*, Gaetano Petrelli, *L’Autenticità Del Titolo Della Trascrizione Nell’Evoluzione Storica e Nel Diritto Comparato*, 53 RIVISTA DI DIRITTO CIVILE 585, 588 (2007); J.G. Sauveplanne, *The Protection of the Bona Fide Purchaser of Corporeal Movables in Comparative Law*, 29 RABEL J. COMP. INT. PRIV. LAW 651, 651 (1965). *See generally* RENÉ DEMOGUE, *LES NOTIONS FONDAMENTALES DU DROIT PRIVÉ: ESSAI CRITIQUE POUR SERVIR D’INTRODUCTION À L’ÉTUDE DES OBLIGATIONS* (1911) (on the notion of static versus dynamic security); VICTOR EHRENBERG, *RECHTSSICHERHEIT UND VERKEHRSSICHERHEIT: MIT BESONDERER RÜCKSICHT AUF DAS HANDELSREGISTER* (1904) (on the notion of certainty of rights versus certainty of transactions).

2. We introduced this notion in Giuseppe Dari-Mattiacci & Carmine Guerriero, *Law and Culture: A Theory of Comparative Variation in Bona Fide Purchase Rules*, 35 OXFORD J. LEGAL STUD. 543 (2015) (dealing exclusively with stolen goods).

3. Ashton Hawkins et al., *A Tale of Two Innocents: Creating an Equitable Balance Between the Rights of Former Owners and Good Faith Purchasers of Stolen Art*, 64 FORDHAM L. REV. 49, 49–50 (1995); Menachem Mautner, “*The Eternal Triangles of Law*”: *Toward a Theory of Priorities in Conflicts Involving Remote Parties*, 90 MICH. L. REV. 95, 95–96 (1991); *see also* Grant Gilmore, *The Commercial Doctrine of Good Faith Purchase*, 63 YALE L.J. 1057, 1057 (1954) (stressing that the historical emergence of the doctrine of good faith purchase served a commercial purpose: enabling contracting parties to rely on market transactions without costly inquiries about title); Boris Kozolchik, *Transfer of Personal Property by a Nonowner: Its Future in Light of Its Past*, 61 TUL. L. REV. 1453, 1454 (1987) (focusing on the rule’s function of enabling transfers through market intermediaries); Daniel E. Murray, *Sale in Market Overt*, 9 INT’L & COMP. L.Q. 24, 24–25 (1960) (arguing that the good faith purchase rules provide common sense solutions to a universal problem); Sauveplanne, *supra* note 1, at 651–52 (stressing the commercial logic behind good faith purchase rules). For a formal analysis, see Benito Arruñada et al., *Property Rights in Sequential Exchange*, 35 J.L. ECON. & ORG. 127, 127–28 (2019).

problems.⁴

The perplexing normative question of how such cases *should* be adjudicated is the object of an important and vast scholarship.⁵ In this Article, we are concerned with the positive question of how such cases *are* adjudicated in different countries around the world, and if trends emerge, how such trends can be rationalized. In the analysis, we employ a unique dataset on the GFP rules in force in 126 countries around the world.⁶

To start with, we show that there is a large amount of first-order divergence across legal systems and quantify these differences using various indicators. GFP rules vary widely across countries, both for stolen and embezzled goods. This finding puts to rest a lingering debate in the literature, which has been traditionally divided in two camps: those who argue that GFP rules—and more generally private law provisions—vary,⁷ as we show, and those who believe that they are rather uniform if one considers how such rules are applied in practice⁸ (we account for this in our study).

Yet, we also show that there is remarkable second-order convergence—thereby vindicating both camps' contentions—on how the protection of owners and buyers varies as a function of the mode of expropriation (theft versus embezzlement) and the context of the transfer (commercial versus private): virtually all legal systems in our dataset afford more protection to

4. See Benito Arruñada, *Institutional Support of the Firm: A Theory of Business Registries*, 2 J. LEGAL ANALYSIS 525, 534–54 (2010); Kenneth Ayotte & Patrick Bolton, *Optimal Property Rights in Financial Contracting*, 24 REV. FIN. STUD. 3401, 3402–04 (2011). This Article focuses on personal property; real property is subject to registration, which in turn has different effects under different national registration systems. For analysis on real property, see generally Carmine Guerriero, *Endogenous Property Rights*, 59 INT. REV. L. & ECON. 313 (2016).

5. See, e.g., Alan Schwartz & Robert E. Scott, *Rethinking the Laws of Good Faith Purchase*, 111 COLUM. L. REV. 1332, 1333–38 (2011) (providing a recent scholarly contribution to this field that contains a review of the relevant literature).

6. The raw data and a detailed description can be found in Giuseppe Dari-Mattiacci & Carmine Guerriero, *A Novel Dataset on Horizontal Property Rights in 126 Jurisdictions*, 11 DATA BRIEF 557, 559–60 (2017). We dropped Taiwan due to a coding error and hence reduced the sample size to 125 countries for the purposes of this analysis. This change does not affect any of our main results since our proxy for the quality of legal enforcement is not observable for this jurisdiction. We thank Yun-chien Chang for having drawn our attention on this issue.

7. See, e.g., Saul Levmore, *Variety and Uniformity in the Treatment of the Good-Faith Purchaser*, 16 J. LEGAL STUD. 43, 45 (1987); John Henry Merryman, *The Good Faith Acquisition of Stolen Art*, in CRIME, PROCEDURE AND EVIDENCE IN A COMPARATIVE CONTEXT 275, 275–81 (John Jackson et al. eds., 2008); Patricia Youngblood Reyhan, *A Chaotic Palette: Conflict of Laws in Litigation Between Original Owners and Good-Faith Purchasers of Stolen Art*, 50 DUKE L.J. 955, 1006 (2001).

8. E.g., 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 177, 214–17 (Victor A. Ginsburgh & Pierre-Michel Menger eds., 1996). For a historical perspective, see also Murray, *supra* note 3, at 50–52 (discussing how multiple legal systems across space and time have been similar).

the innocent buyer if the good was embezzled rather than stolen, or if the purchase occurred in a commercial setting (we distinguish among public markets, auctions, and professional sellers, both for stolen and for embezzled goods) as opposed to a private sale. A fitting illustration is provided by the *theft rule*⁹ versus the *entrustment doctrine*¹⁰ in U.S. law: the owner prevails against a good-faith buyer of a stolen good, while the buyer prevails if the good was embezzled and she purchased it from a professional seller.

What explains these trends and how can they be reconciled? We use a combination of empirical analysis—which yields useful insights only if there is variation in the underlying data—and theoretical rationalization. We first address the question of divergence. In a previous study,¹¹ we developed a metric for cultural differences across countries—somewhat arbitrarily called *self-reliance*—capturing two distinct and important features of a country’s cultural endowment: respect for others and regard for hierarchy.¹² We show that a country’s degree of self-reliance accounts for divergence in GFP rules better than other measurable cross-country differences, including: random “disagreements,” the legal origins of a country’s current legal system, differences in political systems, and differences in religious beliefs.¹³

Our previous study dealt with stolen goods, but here, we exploit for the first time the other half of the data: embezzled goods.¹⁴ Both analyses yield the same result: specific cultural traits are the root of comparative variation in private law rules and possibly beyond. In particular, we find that high levels of respect for others and low levels of regard for hierarchy—corresponding to a high degree of self-reliance—are associated with stronger owner protections. We demonstrate this contention using direct survey data on cultural traits and then repeat the analysis using the features of a country’s language as instrumental variables that embed cultural traits.¹⁵ The survey

9. See *Solomon R. Guggenheim Found. v. Lubell*, 569 N.E.2d 426, 431 (N.Y. 1991).

10. See U.C.C. § 2-403(2)–(3) (AM. LAW INST. & UNIF. LAW COMM’N 2018). For a constitutional perspective on the theft rule versus the entrustment doctrine, see generally Elwood Earl Sanders, Jr., (*Red*) *Elvis Has Left the Building: Did the UCC Legalize Theft? Constitutional Concerns Arising from the UCC Entrustment Clause, A Critical Analysis of Lindholm v. Brant*, 13 APPALACHIAN J.L. 21 (2013).

11. Dari-Mattiacci & Guerriero, *supra* note 2, at 550; see also Giuseppe Dari-Mattiacci, Carmine Guerriero & Zhenxing Huang, *The Property–Contract Balance*, 172 J. INSTITUTIONAL & THEORETICAL ECON. 40, 49, 60–61 (2016).

12. Self-reliance takes three possible values: high, if a country has high respect for others and low regard for hierarchy; low, if a country has low respect for others and high regard for hierarchy; and medium, in the residual cases (high or low levels of both respect for others and regard for hierarchy). Collapsing two cultural dimensions into a single variable has the advantage of allowing for direct visualizations of the results.

13. See *infra* Section II.A (providing details on these approaches and references).

14. Dari-Mattiacci & Guerriero, *supra* note 2, at 559–60.

15. See *infra* Section II.B.

data is contemporaneous to law and hence one cannot be sure there is a causal relationship rather than a simple correlation. Language, instead, does not often vary as a result of legal reforms and can be used as a stable indicator of hard-wired cultural traits.¹⁶ To explore a possibly interesting avenue for future research, we also repeated our tests using world-wide data provided in the recent article, *The Moral Machine Experiment*¹⁷ and spotted some interesting, though not very robust,¹⁸ correlations between law and morality. More specifically, value systems that put more weight on an individual's status and seniority are associated with stronger owner protection.

While our analysis yields insights into the causes of divergence, it also raises the question of how to rationalize (1) the relationship between legal divergence and cultural variation and (2) legal convergence. The literature has produced two main theoretical perspectives on the GFP problem. The ex ante–incentives approach emphasizes that the level of protection that the law affords the original owner versus the buyer has an effect on the parties' incentives to reduce the likelihood of potential conflicts. Namely, it dampens the owner's incentives to protect her property and reinforces the buyer's incentives to inquire about title.¹⁹ Conversely, the ex post–value approach suggests that, since something has already gone wrong, the contested good should simply be assigned to the party that surely, or absent reliable information on private valuations, values the good the most.²⁰

Our analysis vindicates—again—both sides of the debate. We argue

16. See Chi-yue Chiu, *Language and Culture*, ONLINE READINGS PSYCHOL. & CULTURE, Mar. 2011, at 1, 3–5 (providing a literature review on the effects of language on culture); Emiko S. Kashima & Yoshihisa Kashima, *Culture and Language: The Case of Cultural Dimensions and Personal Pronoun Use*, 29 J. CROSS-CULTURAL PSYCHOL. 461, 462 (1998) [hereinafter Kashima & Kashima, *Culture and Language*]; Emiko S. Kashima & Yoshihisa Kashima, *Erratum to Kashima and Kashima (1998) and Reiteration*, 38 J. CROSS-CULTURAL PSYCHOL. 396, 396 (2005); Sean Lee, *Rethinking the Relationship Between Pronoun-Drop and Individualism with Bayesian Multilevel Models*, 2 J. LANGUAGE EVOLUTION 188, 192 (2017) (arguing that the associations between language and culture found by Kashima and Kashima may be driven by Indo-European languages); Amnon Lehari & Amir Licht, *Bills and Pieces of Property*, 36 YALE J. INT'L L. 115, 115–18 (2011) (first to use this approach in legal scholarship); Lewis Davis, *An Extension of the Kashima and Kashima (1998) Linguistic Dataset 2–4* (May 12, 2012) (unpublished manuscript) (on file with authors).

17. See Edmond Awad et al., *The Moral Machine Experiment*, 563 NATURE 59, 60–64 (2018).

18. See *infra* Section II.B (explaining these findings vanish when one adds relevant controls).

19. See Levmore, *supra* note 7, at 46; Anthony Ogus, *What Legal Scholars Can Learn from Law and Economics*, 79 CHICAGO-KENT L. REV. 383, 394–95 (2004). For a formal mathematical approach to the problem, see generally Landes & Posner, *supra* note 8; Caspar Rose, *The Transfer of Property Rights by Theft: An Economic Analysis*, 30 EUR. J.L. ECON. 247 (2010); Schwartz & Scott, *supra* note 5; Omri Ben Shoham, *Property Rights in Stolen Goods: An Economic Analysis* (1997) (unpublished manuscript) (on file with authors).

20. Barak Medina, *Augmenting the Value of Ownership by Protecting It Only Partially: The "Market-Overt" Rule Revisited*, 19 J. L. ECON. & ORG. 343, 368 (2003).

that the value approach provides a useful theoretical framework to understand divergence. The intuition is that while it is in principle more likely that the buyer attaches more value to the contested good—because high-value buyers self-select into the market—the importance of ex post reallocations is affected by the prevalence of theft—which in turn depends on the level of respect for others—and the efficiency of the enforcement system—which is a function of the level of regard for hierarchy.

In turn, we explain that the incentive approach sheds light on convergence. In a nutshell, stronger buyer protection emerges in contexts where the buyer has comparatively little control over the situation, and vice versa. In embezzlement cases, the owner can easily reduce the likelihood of expropriation by selecting a more trustworthy agent, which is not the case with theft cases. Similarly, in commercial transactions, there is a legitimate expectation that title has already been scrutinized, and hence, there is little the buyer can add.²¹ In contrast, in private sales, the buyer's effort pays off.²²

We proceed as follows. In Part I we lay out the theoretical foundations of our approach, describe the data, and document convergence and divergence in GFP rules for stolen and embezzled goods. In Part II, we focus on divergence, show empirically that it is the product of cultural differences (in the degree of self-reliance), and compare our explanation with extant theories of comparative variation. In Part III, we address the issue of convergence and propose that, while the ex post–value approach elucidates divergence, the ex ante–incentives approach best accounts for convergence.

21. Several previous contributions have recognized the fact that the owner is in the best position to reduce the risk of embezzlement and that the buyer is justified in assuming the presence of good title in an open commercial setting. *E.g.*, BENITO ARRUÑADA, INSTITUTIONAL FOUNDATIONS OF IMPERSONAL EXCHANGE 41 (2012); Arruñada, *supra* note 4, at 528; Randy E. Barnett, *Squaring Undisclosed Agency Law with Contract Theory*, 75 CALIF. L. REV. 1969, 1996–97 (1987); Karen Theresa Burke, *International Transfers of Stolen Cultural Property: Should Thieves Continue to Benefit from Domestic Laws Favoring Bona Fide Purchasers?*, 13 LOY. L.A. INT'L & COMP. L.J. 427, 444–46 (1990); Saul Levmore, *Rethinking Comparative Law: Variety and Uniformity in Ancient and Modern Tort Law*, 61 TUL. L. REV. 235, 287 (1986); Levmore, *supra* note 7, at 59; Mautner, *supra* note 3, at 131; Medina, *supra* note 20, at 346; Harold R. Weinberg, *Sales Law, Economics, and the Negotiability of Goods*, 9 J. LEGAL. STUD. 569, 590–91 (1980).

22. At a very general level, our analysis proposes a framework to rationalize divergence and convergence in private law rules, suggesting that divergence is driven by culture while convergence is driven by function—more precisely, the need to provide incentives for good behavior. For alternative frameworks used to address the same issue, see Yun-chien Chang & Henry E. Smith, *Convergence and Divergence in Systems of Property Law: Theoretical and Empirical Analyses*, 92 S. CAL. L. REV. 785, 786–96 (2019); Saul Levmore, *Convergence and Then Downstream Divergence in Torts and Other Law*, 92 S. CAL. L. REV. 769, 782–83 (2019); see also Yun-chien Chang, 214 Jurisdictions in the World Gets It Wrong: Fractional Ownership and Internal Auction in the Good-faith Purchase Problem 28–35 (2018) (unpublished manuscript) (on file with authors) (arguing that the market overt rule provides optimal incentives to owners, buyers, and intermediaries).

The Appendix contains details of the analysis and of the data collection process, additional figures and regression tables.

I. FIRST-ORDER DIVERGENCE AND SECOND-ORDER CONVERGENCE

We focus on the regulation of the GFP for value without notice of personal property in the case of theft—in which the original owner was dispossessed by a thief—and embezzlement—in which the good was originally entrusted by the original owner to an (unfaithful) embezzler. Scholarship has traditionally been divided on the issue of divergence versus convergence in GFP rules.²³ Traditional comparative analyses were based on only a handful of countries, often covered only blackletter law, and did not generally offer a way to compare the rules in force in different countries in an unambiguous and measurable way.²⁴

To overcome these challenges, we worked with 149 teams of property experts in 125 countries,²⁵ who generously provided their time and effort to this project. Their names and the list of countries covered in this study can be found in the Appendix. These experts are either law professors at leading universities in their respective countries or practicing lawyers associated with internationally renowned law firms, most of which are part of the Lex Mundi network. We collected the data by means of a questionnaire in which we asked the question, “[a]t what conditions does a good faith buyer acquire ownership of a stolen or embezzled good?” and investigated a number of complementary and boundary issues.²⁶

We inquired about the specific rules that apply to GFP, the definition of good faith, whether good faith is presumed, whether compensation is due to the dispossessed good-faith buyer in case the owner successfully reclaims the good,²⁷ the general background rules of adverse possession, transfer of

23. See *supra* notes 7–8 and accompanying text.

24. When we started collecting data for this project, the largest previous study on this matter only covered about thirty countries; for this information, see generally NATIONAL REPORTS ON THE TRANSFER OF MOVABLES IN EUROPE (Wolfgang Faber & Brigitta Lurger eds., 2011); RULES FOR THE TRANSFER OF MOVABLES (Wolfgang Faber & Brigitta Lurger eds., 2008). Recent comparative law scholarship increasingly makes use of large datasets and a series of notable studies on this matter have been produced by Professor Yun-chien Chang, whose work is complementary with ours.

25. Note that in the data we differentiate among England, Wales, Northern Ireland, and Scotland.

26. The questionnaire was drafted by the two of us and Arthur Salomons and was sent to the country experts in English or French.

27. While a number of countries require the original owner to pay compensation to the good-faith buyer when the good is reclaimed, interestingly, no jurisdiction in our sample contained the opposite rule, which would require a prevailing good-faith buyer to pay compensation to the original owner in order to retain the good.

property and statutes of limitations, and which goods are excepted (such as cultural heritage) or registered (such as automobiles) and hence subject to a different set of rules. The data covers the period 1981–2011; there was no relevant reform over this period.²⁸ Importantly, experts were instructed to report the black-letter rules and how they are applied in practice by courts.

In order to obtain a comparable measure of the rules of interest in each jurisdiction, from the experts' answers we distilled four variables indicating the number of years after which the good-faith buyer acquires title on the good in each of four situations: private sale, public market, auction, and professional seller. We repeated the same exercise twice: for stolen goods and for embezzled goods. (We focused on cases in which the good is immediately resold after theft or embezzlement.)²⁹ These variables provide a quantitative measure of the protection of the original owner versus the good-faith buyer in each case: the greater the number of years, the stronger the protection of the original owner, and conversely, the weaker the protection of the good-faith buyer.³⁰

28. The data is freely available in Dari-Mattiacci & Guerriero, *supra* note 6, at 559–60. For more details and extensive summary statistics, see Dari-Mattiacci & Guerriero, *supra* note 2, at 550–55.

29. We did so because statutes of limitations start running at different times in different jurisdictions. In this way, we made sure that our comparisons are not affected by this additional source of variation.

30. There are cases in which the buyer never acquires title (as reported in Table 1). We assigned to these cases the value of 30 years, which is the largest value short of “Never” in our data. We repeated the analysis with alternative proxies for “Never” and the results remain essentially the same.

TABLE 1. Relative Owner Protection in the United States and Four Comparison Countries

<i>Country</i>	<i>USA</i>	<i>Denmark</i>	<i>Turkey</i>	<i>France</i>	<i>Italy</i>
Theft					
Owner protection in private sales (years)	Never	Never	5	3	0
Pro-buyer liability rule in private sales	No	No	No	No	No
Owner protection in commercial transactions (public markets, auctions, and professional sellers) (years)	Never	Never	5	3	0
Pro-buyer liability rule in commercial transactions (public markets, auctions, and professional sellers) (years)	No	No	Market price	Purchase price	No
Embezzlement					
Owner protection in private sales (years)	Never	0	0	3	0
Pro-buyer liability rule in private sales	No	No	No	No	No
Owner protection in commercial transactions (public markets, auctions, and professional sellers) (years)	0 ^a	0	0	3	0
Pro-buyer liability rule in commercial transactions (public markets, auctions, and professional sellers) (years)	No	No	No	Purchase price	No

Notes: Relative owner protection in the United States and four comparison countries for stolen and embezzled movable goods as measured by the number of years after which the buyer acquires title.

^a For the United States the value is “0” with professional sellers and “Never” with public markets and auctions.

Table 1 provides an example of the most relevant of the variables in our dataset for four countries as compared to the United States, and of the extent of variation. Starting from the top row, Denmark provides the strongest degree of owner protection in the case of stolen goods purchased in a private sale. In this case the buyer never acquires title, hence the owner is fully protected. (The “theft rule” in the United States provides the same degree of

protection.)³¹ At the other end of the spectrum, Italy fully protects the buyer, who acquires title immediately. Turkey and France afford the owner an intermediate level of protection, recognizing the buyer's title after five and three years, respectively. None of these four countries require the owner to pay compensation to the buyer when the owner reclaims a good that the buyer purchased privately (second row).

The third and fourth rows concern commercial transactions, in which the buyer purchased the good in a public market, at an auction, or from a professional seller.³² While the main index of owner protection is the same as in private sales, Turkey and France require the owner to pay a compensatory sum to the buyer equal to the market price and the purchase price, respectively, conditional on the owner satisfying the time limitation.

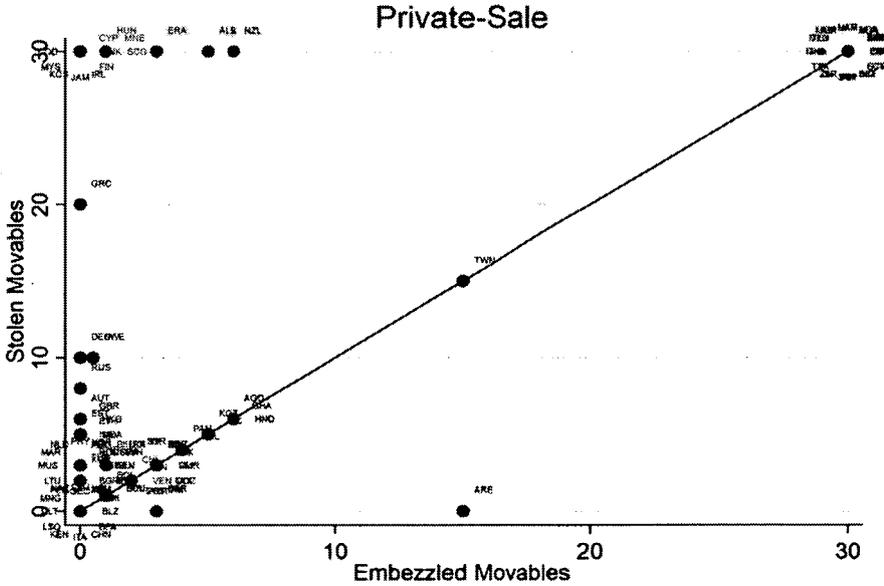
Moving down the table, while France and Italy have uniform rules for stolen and embezzled goods, both Denmark and Turkey provide more protection to the buyer when the good was embezzled rather than stolen. The difference is particularly stark in Denmark, where owners are provided with full protection in the case of theft and buyers are provided with full protection in the case of embezzlement. (The buyer is fully protected in the United States under the entrustment doctrine if the embezzled good was purchased from a professional seller.)³³

31. *E.g.*, *Solomon R. Guggenheim Found. v. Lubell*, 569 N.E.2d 426, 431 (N.Y. 1991).

32. Note that the dataset differentiates among these three cases while the table does not, because the four countries reported here apply uniform rules, in contrast with the United States. *See id.*

33. *See* U.C.C. § 2-403(2)–(3) (AM. LAW INST. & UNIF. LAW COMM'N 2018).

FIGURE 1. Theft versus Embezzlement (Private Transactions)



Note: Relative owner protection for stolen and embezzled movable goods in private sales as measured by the number of years after which the buyer acquires title. (Sample size = 125).

To illustrate one of the metrics we use, in Figure 1 we provide the same information as in the first row of Table 1 for all the countries in our dataset.³⁴ Each dot in the graph represents a different country. The position of the dot in the graph indicates the degree of owner protection for private sale; the degree of owner protection for embezzled goods is indicated on the horizontal axis and the degree of owner protection for stolen goods is indicated on the vertical axis.

The countries that can be found along the diagonal afford the same degree of protection for stolen and embezzled goods (like Italy and France). Countries above the diagonal afford more protection to the owner if the good was stolen as opposed to embezzled (like Denmark and Turkey) and, vice versa, countries below the diagonal afford less protection to the owner if the good was stolen as opposed to embezzled.

The figure shows a large degree of first-order divergence in GFP rules. Countries are widely spread out both along the vertical axis—implying variation in the GFP rules concerning theft—and along the horizontal axis—which refers to embezzlement. Next to the two polar cases (full owner

34. For the list of country and country codes, see *infra* Appendix.

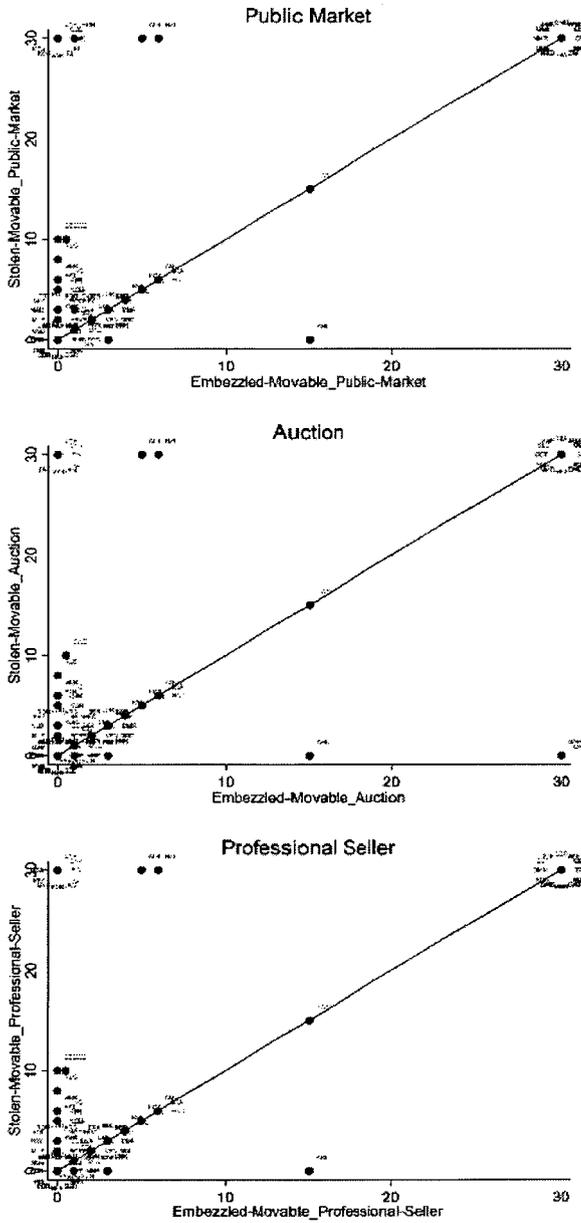
protection and full buyer protection), many countries offer several different intermediate degrees of protection to the owner, with a particularly relevant amount of variation in the range from zero to ten years.

The figure also shows the extent of second-order convergence, which can be appreciated by comparing the rules for stolen goods with those for embezzled goods. With only a couple of exceptions, the vast majority of the countries in our dataset lie above the diagonal; that is, almost all countries afford more protection to the original owner when the good was stolen rather than embezzled.

Analogous results are obtained when one considers the case of theft versus embezzlement in commercial transactions in Figure 2,³⁵ and the case of private sales versus commercial transactions for both theft and embezzlement in Figure 3.

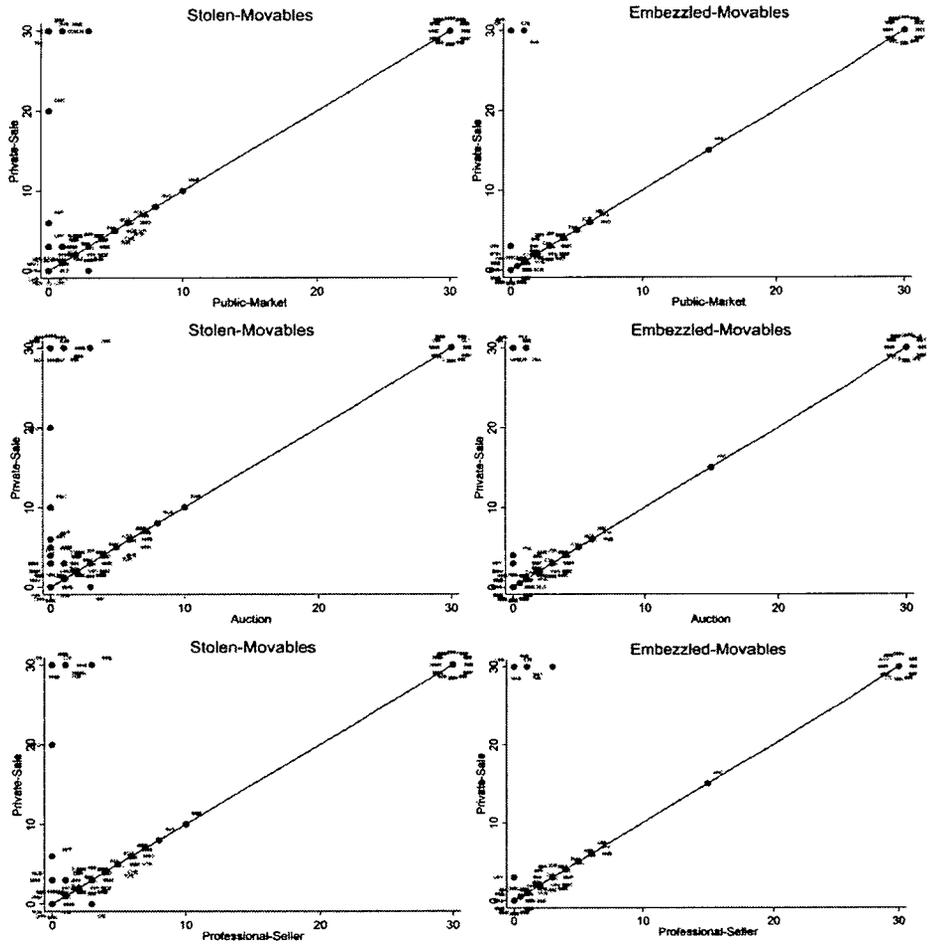
35. Note that there is less variance in commercial transactions, as compared to private sales. This observation is consistent both with a static push towards more buyer protection in commercial settings, which mechanically reduces variation and with a dynamic tendency towards convergence due to higher stakes and more frequent interactions. See Richard A. Epstein, *The Path to the T.J. Hooper: The Theory and History of Custom in the Law of Tort*, 21 J. LEGAL STUD. 1, 15–16 (1992).

FIGURE 2. Theft versus Embezzlement (Commercial Transactions)



Note: Relative owner protection for stolen and embezzled movable goods in commercial transactions as measured by the number of years after which the buyer acquires title. (Sample size = 125).

FIGURE 3. Private versus Commercial Transactions



Note: Relative owner protection in private versus commercial transactions as measured by the number of years after which the buyer acquires title. (Sample size = 125).

Table 2 shows the prevalence of buyer-compensation provisions. These provisions surface more often across commercial settings as compared to private transactions, which is consistent with a greater degree of buyer protection in commercial transactions. Likewise, with private transactions, buyer-compensation provisions are more common in cases of embezzlement as compared to theft. This is again in line with the fact that embezzlement is associated with more buyer protection. However, in commercial transactions the result is inverted: buyer-compensation provisions are more common with theft. Although apparently puzzling, this result can be rationalized by noting that, in all cases, the removal of the compensation requirement is

accompanied by a shorter term of years. This suggests a substitution effect: the reason for the lower prevalence of compensation rules is the fact that the buyer effectively received more protection. In the following sections, we delve into the causes of divergence and convergence.

TABLE 2. Prevalence of Buyer Compensation Rules

	<i>Theft</i>	<i>Embezzlement</i>
Private transactions	15.6%	20.3%
Commercial transactions (public markets, auctions, and professional sellers)	31.3%	28.9%

II. EMPIRICAL ANALYSIS

A. THEORIES OF COMPARATIVE VARIATION AND THEIR EMPIRICAL IMPLICATIONS

There are four main competing explanations for comparative variation that—given currently available data—lend themselves to empirical investigation. We introduce them in the following sections and emphasize their main empirical implications.

1. Functional Equivalence

The functional-equivalence theory³⁶ holds that different legal systems most often implement the same solutions when addressing similar problems, owing to an underlying commonality of aims. This implies that, as emphasized by Professor Saul Levmore,³⁷ when differences in the laws of different countries are detected, they must be illusory (so that different rules actually reach the same outcome), accidental (rules differ for some random historical accident), or innocuous divergences of opinions (in cases when the optimal solution is unclear).

We can exclude the instances when differences in GFP rules are illusory. We asked country experts in our pool to report on how the black-letter law is applied in practice and to focus on the outcome of potential lawsuits. Differences remain and are substantial. If these differences are due to divergences in the way equally reasonable persons could assess the same issue, then they should not exhibit any particular pattern. If we detect a pattern in the data, we can then conclude that the functional-equivalence

36. KONRAD ZWEIGERT & HEIN KÖTZ, INTRODUCTION TO COMPARATIVE LAW 33–47 (Tony Weir trans., Clarendon Press 3d rev. ed. 1998).

37. Levmore, *supra* note 7, at 65. For further discussion, see generally Levmore, *supra* note 22.

theory cannot explain divergence (while, as we will see in Part III, it may successfully explain convergence). Differences due to historical accidents may instead follow a pattern due, for instance, to colonization or transplantation dynamics. We discuss this issue in Section II.A.3.

2. Culture

Countries differ sharply in terms of dominant cultural values. In turn, cultural differences may result in differences in the law.³⁸ Culture can be “measured” in various ways. Direct measurements are provided by questionnaires administered through world-wide surveys.³⁹ The problem with direct measurements of cultural differences is that they are contemporaneous to law and hence it is hard to determine whether the relationship is causal. Therefore, to inquire about the cause of comparative variation, one needs to look deeper and identify cultural traits in a way that is unlikely to be the product of private law rules or some hidden common cause.

Language provides a relatively stable measure of deep cultural traits that—controlling for colonization, which codetermined law and language in many former colonies—is unlikely to be affected by private law. More specifically, pronoun usage embeds the way in which native speakers of a certain language relate to each other.⁴⁰ On the one hand, some languages

38. See SJOERD BEUGELSDIJK & ROBERT MASELAND, *CULTURE IN ECONOMICS* 313–18 (2011); GEERT HOFSTEDÉ, *CULTURES AND ORGANIZATIONS* 23–24 (1991); DEEPAK LAL, *UNINTENDED CONSEQUENCES: THE IMPACT OF FACTOR ENDOWMENTS, CULTURE, AND POLITICS ON LONG-RUN ECONOMIC PERFORMANCE* 62–65 (1998) (noting the effect of culture on predominantly-Islamic countries); Philippe Aghion et al., *Regulation and Distrust*, 125 Q.J. ECON. 1015, 1046–47 (2010); Thorsten Beck et al., *Law, Endowments, and Finance*, 70 J. FIN. ECON. 137, 151–53 (2003); Yuriy Gorodnichenko & Gerard Roland, *Culture, Institutions and the Wealth of Nations*, 99 REV. ECON. STAT. 402, 402–04 (2017); Jim Granato et al., *The Effect of Cultural Values on Economic Development: Theory, Hypotheses, and Some Empirical Tests*, 40 AM. J. POL. SCI. 607, 613 (1996); Avner Greif, *Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies*, 102 J. POL. ECON. 912, 914 (1994); Luigi Guiso et al., *Does Culture Affect Economic Outcomes?*, 20 J. ECON. PERSP. 23, 44–46 (2006); Amir N. Licht et al., *Culture, Law, and Corporate Governance*, 25 INT’L REV. L. & ECON. 229, 253 (2005); Susan Rose-Ackerman, *Corruption*, in 1 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 517, 521 (Peter Newman ed., 1998); Shalom H. Schwartz, *A Theory of Cultural Values and Some Implications for Work*, 48 APPLIED PSYCHOL. INT’L REV. 23, 25 (1999); René M. Stulz & Rohan Williamson, *Culture, Openness, and Finance*, 70 J. FIN. ECON. 313, 346 (2003); Guido Tabellini, *Institutions and Culture*, 6 J. EUR. ECON. ASS’N 255, 255–59 (2008); Claudia R. Williamson & Carrie B. Kerekes, *Securing Private Property: Formal Versus Informal Institutions*, 54 J.L. & ECON. 537, 564 (2011).

39. For an example of one of these world-wide surveys, Ronald Inglehart, *World Values Survey wave 6 (2010–2014)*, INST. FOR SOCIAL RES. (2014), <http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>.

40. See PETER MÜHLHÄUSLER & ROM HARRÉ, *PRONOUNS AND PEOPLE: THE LINGUISTIC CONSTRUCTION OF SOCIAL AND PERSONAL IDENTITY* 16–18 (Peter Trudgill et al. eds., 1990); Kashima &

allow the speaker to drop the first-person pronoun. This rule de-emphasizes the individual in a conversation and is empirically associated with lower levels of trust and respect for others.⁴¹ On the other hand, some languages require the speaker to choose between the formal and the informal version of the second-person pronoun. This rule is empirically associated with higher levels of regard for hierarchy.⁴² Our self-reliance indicator captures both dimensions.⁴³

3. Legal Origins

Differences among legal systems can be traced back to a process of transplantation from one country to another.⁴⁴ The legal-families theory in comparative law⁴⁵ and the legal-origins theory in comparative economics⁴⁶ emphasize a particularly pervasive channel of transplantation: colonization. Empirically, this approach implies that divergence should be explained by common law rather than civil law origins; common law is associated a higher degree of private ordering in society, which in turn stresses owner protection.⁴⁷

Instead of relying simply on the identity of the colonizer in a distant past, we empirically identify a country's legal tradition based on its current characteristics along five dimensions: the precedential value of appellate decisions, the possibility to appeal on questions of facts, the role of equity,

Kashima, *Culture and Language*, *supra* note 16, at 461–64.

41. See GEERT H. HOFSTEDE, *CULTURE'S CONSEQUENCES* 11–14 (Walter J. Lonner & John W. Berry eds., 1980) (classifying culture along the individualism-collectivism dimension). Italian, for instance, allows pronoun drop (low level of trust and respect for others), while English does not (high level of trust and respect for others).

42. See Shalom H. Schwartz, *Beyond Individualism/Collectivism: New Cultural Dimensions of Values*, in *INDIVIDUALISM AND COLLECTIVISM* 85, 98 (Uichol Kim et al. eds., 1994) (classifying culture along the hierarchy-egalitarianism dimension). Italian, for instance, allows the use of different second person pronouns modulated by social distance (widespread acceptance of hierarchy), while English does not (limited acceptance of hierarchy).

43. See *supra* note 12 and accompanying text.

44. See ALAN WATSON, *LEGAL TRANSPLANTS* 16–20 (Univ. of Ga. Press 2d ed. 1993); ALAN WATSON, *ROMAN LAW & COMPARATIVE LAW* 197 (1991).

45. See James Gordley, *Comparative Law and Legal History*, in *THE OXFORD HANDBOOK OF COMPARATIVE LAW* 753, 761 (Mathias Reimann & Reinhard Zimmermann eds., 2006).

46. See Rafael La Porta et al., *Legal Determinants of External Finance*, 52 *J. FIN.* 1131, 1131 (1997) (defining modern legal origins as either English, French, German, or Scandinavian). See generally Thorsten Beck et al., *Law and Finance: Why Does Legal Origin Matter?*, 31 *J. FIN. ECON.* 653 (2003) (providing another example of legal origins); Edward L. Glaeser & Andrei Shleifer, *Legal Origins*, 117 *Q.J. ECON.* 1193 (2002) (same); Rafael La Porta et al., *Law and Finance*, 106 *J. POL. ECON.* 1113 (1998) (same).

47. Rafael La Porta et al., *The Economic Consequences of Legal Origins*, 46 *J. ECON. LITERATURE* 285, 285–87 (2008).

the adversarial character of procedure, and the scope of oral evidence.⁴⁸ This classification provides a continuous measure of proximity to a pure common law system, which in turn can be tested against self-reliance as a possible explanation for divergence.

4. Political Economics

Politics may play an important role in determining a country's private law institutions.⁴⁹ In our context, the protection afforded to original owners versus good-faith buyers could be a function of the balance of power between an entrenched, concentrated elite, focused on protecting static ownership, and the rest of society. As a result, we should expect less democratic systems and systems based on majoritarian rather than proportional representation to reflect the preferences of the elite⁵⁰ and tend towards higher levels of owner protection.⁵¹

5. Religious Beliefs

Culture is heavily influenced by religious beliefs. Max Weber pointed out the effect of Protestantism on capitalist attitudes. He explained that, contrary to Catholics, Protestants saw worldly success as a sign of salvation and submitted to an ethics that discouraged expenditures to the benefit of re-investment.⁵² A recent study has empirically documented the association of religion with an attitude towards the protection of capital. In particular, it

48. Since many countries have undergone substantial reforms after colonization, classifying a country as a common law or a civil law jurisdiction by looking at the moment of colonization may be unwarranted. Carmine Guerriero, *Endogenous Legal Traditions*, 46 INT'L REV. L. & ECON. 49, 67 (2016); Mariana Pargendler, *The Rise and Decline of Legal Families*, 60 AM. J. COMP. L. 1043, 1043–47 (2012). In addition, identifying the legal tradition as the country of origin of the colonizers lumps together a number of factors that are difficult to disentangle from the notion of a legal tradition, such as business culture, language, religion, preference heterogeneity and inclusiveness of political institutions, as one of us documented in previous works. See Guerriero, *supra*, at 67.

49. Clayton P. Gillette, *Who Puts the Public in Public Good?: A Comment on Cass*, 71 MARQ. L. REV. 534, 534–36 (1988); Mark J. Roe, *Legal Origins, Politics, and Modern Stock Markets*, 120 HARV. L. REV. 460, 463 (2006).

50. Marco Pagano & Paolo F. Volpin, *The Political Economy of Corporate Governance*, 95 AM. ECON. REV. 1005, 1007 (2005); See Bernd Hayo & Stefan Voigt, *Endogenous Constitutions: Politics and Politicians Matter, Economic Outcomes Don't*, 88 J. ECON. BEHAV. & ORG. 47, 48 (2013).

51. In the analysis, we measure the level of democracy by the constraints on the executive as coded in the Polity IV dataset. Monty G. Marshall & Ted Robert Gurr, *Polity IV Individual Country Regime Trends, 1946-2013*, POLITY IV PROJECT (June 6, 2014), <http://www.systemicpeace.org/polity/polity4.htm>. Please note that this website has since been updated and its data does not exactly match the data used by this Article. We also use data on the electoral systems from Lorenz Blume et al., *The Economic Effects of Constitutions: Replicating—and Extending—Persson and Tabellini*, 139 PUB. CHOICE 197, 209–25 (2009).

52. See MAX WEBER, *THE PROTESTANT ETHIC AND THE SPIRIT OF CAPITALISM* 108–11 (Talcott Parsons trans., Routledge 2005).

found higher levels of creditor protection to be associated with Protestantism.⁵³ Analogizing to the GFP problem, we should expect Protestantism to be associated with higher levels of owner protection.⁵⁴

B. TESTING THE EXPLANATORY POWER OF ALTERNATIVE THEORIES

All of the theories of comparative variation illustrated in the previous Section are compatible with a certain degree of divergence in GFP rules but each yields different predictions as to the pattern of such divergence. While the functional-equivalence theory implies that divergence should manifest itself as random noise, all other theories, including ours, predict that divergence should follow a certain predictable pattern in response to changes in the country characteristics emphasized by the theory under examination.

These theories taken together predict that owner protection should be greater in countries displaying a stronger culture of self-reliance, a legal system nearer to a perfect common law tradition, weaker constraints on the executive, a majoritarian rather than proportional electoral system, and a larger share of Protestants in the population. If any of these variables can be shown to explain a country's GFP rules, then we can reject the functional-equivalence hypothesis, which implies that none of them should be statistically significant.

To compare the explanatory power of these theories we ran a regression. Figure 4 visualizes the main result of the analysis, depicting the effect of self-reliance on owner protection after controlling for the determinants of comparative variation suggested by the competing theories.⁵⁵ The degree of a country's self-reliance is measured on the horizontal axis, while the relevant owner protection indicator is measured on the vertical axis. A positively-sloped regression line indicates a positive effect of self-reliance on owner protection, and a steeper slope indicates a bigger effect. (Vice versa, a negatively-sloped line reveals a negative effect.)

Self-reliance has a positive, large, and statistically significant (at the 1% level) effect on owner protection in the case of embezzled goods. This result

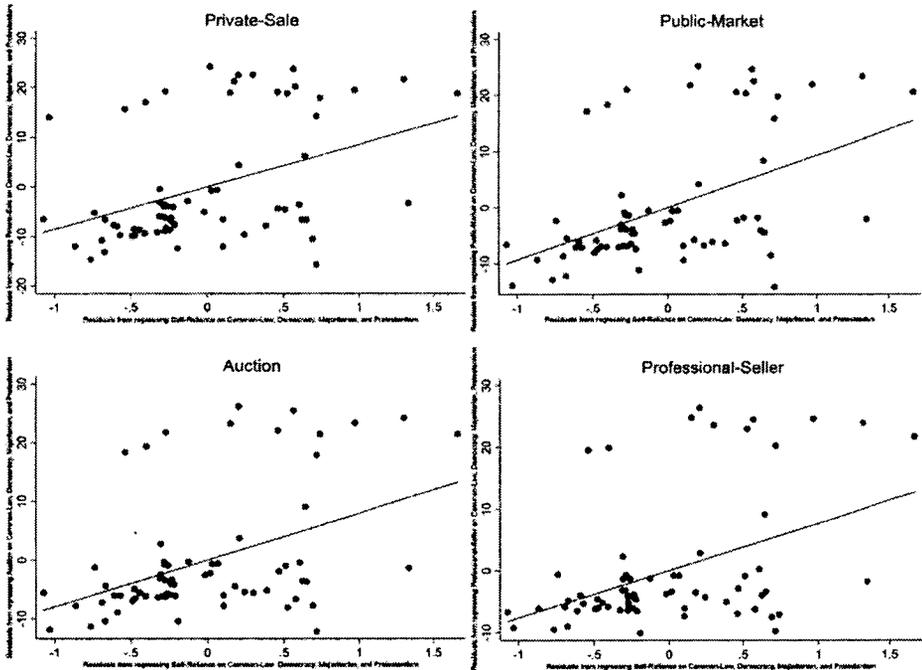
53. Stulz & Williamson, *supra* note 38, at 315.

54. To test the effect of religion, we use data collected by Rafael La Porta et al., *The Quality of Government*, 15 J.L. ECON. & ORG. 222, 234-44 (1999).

55. For the summary statistics of all the variables we use and the estimates of our regression, see *infra* app. The figure reports the residuals from regressing the variable of interest (for instance, owner protection in private sales, in the upper-left graph) on all explanatory variables and compares it with the residuals from regressing self-reliance on the same explanatory variables. Through this procedure, we capture the extent to which self-reliance explains owner protection after considering the effect of other variables.

holds for all market configurations and allows us to reject the hypothesis that divergence is random.⁵⁶

FIGURE 4. Self-Reliance



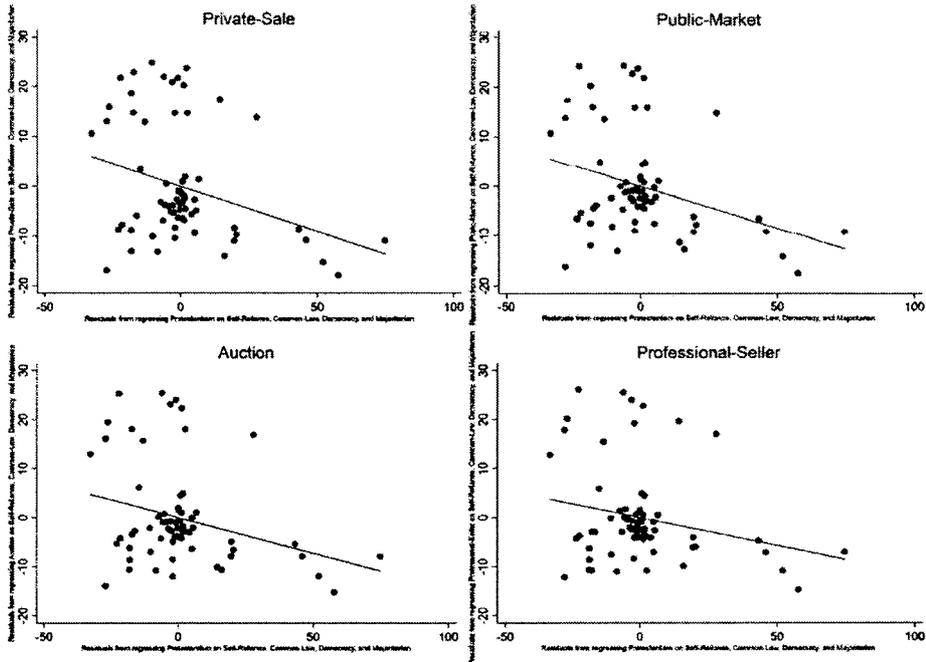
Notes: This figure shows the effect of a culture of self-reliance has on GFP rules for embezzled goods. The graphs plot on the vertical axis the protection of the original owner's property of a good embezzled and then sold, respectively, through a private sale, in a public market, at an auction, or by a professional seller; and on the horizontal axis, the graphs plot the level of a culture of self-reliance. We eliminate from each variable the variation that is explained by legal origins, democracy, a majoritarian electoral system and Protestantism. The slope of each line is a coefficient obtained from regressing the property rights proxy on a culture of self-reliance and the other control variables, and it is significant at 1% or higher in each graph. See the Appendix for details.

Similarly, Figure 4 reports the effect of a larger share of Protestants on owner protection, after controlling for all the determinants of comparative variation suggested by the competing theories (including self-reliance). In this case, the effect is smaller and negative, suggesting that a larger share of Protestants is associated with weaker owner protection. This result is

56. A recent study has emphasized that the association between languages and culture is especially driven by Indo-European languages. See Lee, *supra* note 16, at 192. To make sure that our results are not affected by this potential problem, we repeated the analysis with countries speaking only Indo-European languages and found the same results. The sample size, though, is severely reduced, limiting the possibility of running additional tests. See the Appendix for details.

inconsistent with the Weberian view that we mentioned before. Moreover, as documented in the Appendix, the coefficients attached to Protestantism are statistically significant at a 5% level only in the two upper graphs and in the bottom-left graph in Figure 5.

FIGURE 5. Protestantism



Notes: This figure shows the effect of Protestantism on GFP rules for embzzled goods. The graphs plot on the vertical axis the protection of the original owner's property of a good embzzled and then sold, respectively, through a private sale, in a public market, at an auction, or by a professional seller; and on the horizontal axis, the graphs plot a measure of Protestantism. We eliminate from each variable the variation that is explained by a culture of self-reliance, legal origins, democracy and a majoritarian electoral system. The slope of each line is a coefficient obtained from regressing the property rights proxy on Protestantism and the other control variables, and it is significant at 5% or more only in the two upper graphs (private sale and public market) and the bottom-left graph (auction). See the Appendix for details.

Similar tests on the effects of constraints on the executive, a majoritarian rather than proportional electoral system, and the common law tradition return coefficients that are statistically undistinguishable from zero. These results demonstrate that divergence in GFP rules for embzzled goods is best explained by cultural differences rather than randomness, a common rather than civil law origin, political economics, or religious beliefs. These results are in line with our previous study in which we focused on stolen

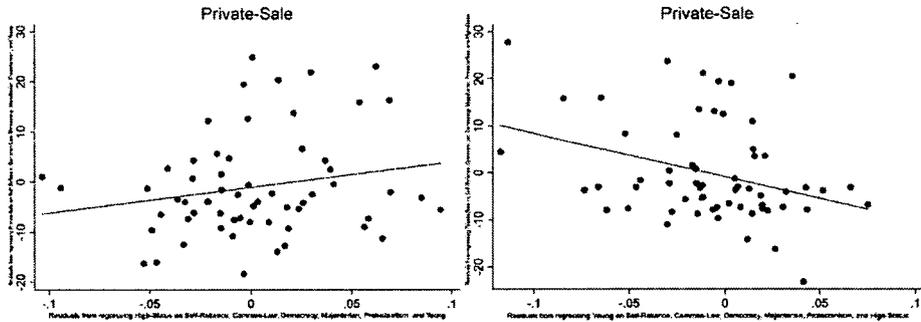
goods and found the same pattern.⁵⁷ (We also ran a series of regressions—including widely used controls, related to income, natural resources, genetic variation and conflicts—and report the results in the Appendix.)

Since our analysis stresses the role of cultural and religious beliefs, moral beliefs may also play a role. We thus ran an additional regression analysis on data from the recent article, *The Moral Machine Experiment*,⁵⁸ which classified countries based on moral beliefs, as exemplified in a modern version of the trolley problem: an autonomous car is about to crash on either one of two (groups of) people. Respondents were essentially asked who should die and who should be spared. We found an interesting positive correlation between the propensity to spare higher-status and older individuals in a country and owner protection in GFP rules in that country (Figure 6). While these results may make intuitive sense—given that the protection of property generally favors individuals belonging to the elite as opposed to the masses and older as opposed to younger individuals—their statistical significance vanishes when introducing relevant controls. Future studies may delve deeper into the empirical relation between law and morality.

57. See Dari-Mattiacci & Guerriero, *supra* note 2, at 571–73.

58. See Awad et al., *supra* note 17, at 60–64.

FIGURE 6. Morality



Notes: This figure shows the effect of morality on GFP rules for embezzled goods. The graphs plot on the vertical axis the protection of the original owner's property of a good embezzled and then sold in a private sale; and on the horizontal axis, the graphs plot the jurisdiction's propensity to spare a high-status victim and that to spare a young victim, respectively. We eliminate from each variable the variation that is explained by a culture of self-reliance, legal origins, democracy, a majoritarian electoral system, and Protestantism. The slope of each line is a coefficient obtained from regressing the property rights proxy on each morality measure and the other control variables, and it is significant at the 10% level in the left graph (high-status victim) and at the 1% level in the right graph (young victim). See Appendix for details.

III. CONVERGENCE AND DIVERGENCE IN THEORY

Scholarship on the topic has put forward two alternative frameworks to rationalize the choice between owner protection and buyer protection in GFP. One camp⁵⁹ gives primacy to ex ante incentives to reduce the risk of unwanted transfers. In particular, the comparison is between the owner's incentives to protect her property and the buyer's incentives to inquire about title. The intuition is that protecting buyers provides owners with incentives to protect their property in order to reduce the likelihood of theft or embezzlement; conversely, protecting owners provides buyers with incentives to inquire about title in order to reduce the risk of paying for goods they will lose at a later time.

An alternative approach is to focus on the ex post allocation of the good to the (most likely) higher-value user between the buyer and the owner.⁶⁰ A useful heuristic is the fact that, typically, voluntary market transactions occur between a relatively high-value buyer and a relatively low-value owner. If the opposite were true, the transaction would not take place. Therefore, the potential buyers that populate a typical market are generally relatively high-

59. See *supra* note 19 and accompanying text.

60. See *supra* note 20 and accompanying text.

value individuals.⁶¹ Intermediaries tend to resell in those markets because the higher the buyer valuation, the greater their gains. In turn, dispossessed owners are not necessarily high-value individuals: some of them may never have sold the good while others might have in the future. Therefore, on average, the ex post conflict between the good-faith buyer and the original owner is most likely to involve a high-value buyer and an average-value owner. This in turn suggests that, in principle, ex post value is maximized in expectation if goods are assigned to the good-faith buyer.⁶²

A. THE EX POST-VALUE THEORY AND FIRST-ORDER DIVERGENCE

In previous studies, we have shown that country-specific characteristics affect the likelihood of ex post misallocation and, in turn, the relative desirability of buyer protection.⁶³ Respect for others and regard for hierarchy are relevant for the regulation of GFP transactions. Countries with a higher level of enforcement benefit more from buyer protection and hence are more likely to adopt it. The intuition is that high levels of enforcement result in goods being returned to their original owners more often under owner protection, which makes buyer protection preferable. Conversely, countries with a higher degree of trust and respect for others benefit less from buyer protection because of a lower incidence of unwanted transfers. In this way, country characteristics can be used as an explanation for the GFP rules in force.⁶⁴

In terms of self-reliance, this analysis suggests that a higher degree of self-reliance—corresponding to higher levels of trust and respect for others and lower regard for hierarchy and enforcement—should be empirically associated with a higher level of owner protection.⁶⁵

61. This remains true even though owner of stolen or embezzled goods may attach low or high value to them.

62. The desirability of buyer protection is only increased if one considers a potential feedback effect on prices. Buyer protection is likely to increase the resale price of stolen or embezzled goods, because buyers are willing to pay more if their title is more secure. In turn, the increase in price could add to the self-selection of buyers: higher prices discourage low-value buyers from entering the market, reinforcing our argumentation.

63. Dari-Mattiacci & Guerriero, *supra* note 2, at 555–57; Dari-Mattiacci, Guerriero & Huang, *supra* note 11, at 15–16; Carmine Guerriero, Property Rights, Transaction Costs, and the Limits of the Market 3 (Dec. 4, 2018) (unpublished manuscript) (on file with authors).

64. See Schwartz & Scott, *supra* note 5, at 1372–73.

65. This approach is in line with a related study by Professors Lehavi and Licht, who proposed individualism as a cultural feature explaining the protection of property. Lehavi & Licht, *supra* note 16, at 117–18 (explaining that self-reliance encompasses individualism through the pronoun-drop feature of the language as one of its two subcomponents).

B. THE EX ANTE–INCENTIVES THEORY AND SECOND-ORDER CONVERGENCE

The ex ante–incentives theories of GFP rules have traditionally been widely employed to construct normative arguments as to which rule is preferable on a global scale and have influenced scholarship more profoundly than the ex post–value approach.⁶⁶ In turn, ex ante–incentives theories are premised on the idea that improved ex post protections dilute incentives ex ante. More specifically, increasing owner protection improves the buyer’s incentives to inquire about title but reduces the owner’s incentives to “self-protect” her property.

However, this premise can be called into question in a dynamic market where prices adjust to expectations. If one allows the price that a buyer is willing to pay for a possibly stolen or embezzled good to reflect the risk that she will lose the good later on, the intuition illustrated above becomes far from obvious. While the literature has focused on the fact that legal protection affects the marginal benefits of self-protection, we argue that it also affects its marginal costs, making the result possibly indeterminate.⁶⁷

In particular, a higher level of owner protection has a direct effect on the incentives for the owner to protect her property because it increases the probability that a stolen or embezzled good will be returned and hence lowers the benefits from efforts to protect property. However, it also has an indirect effect. If the owner is protected, the market value of goods of dubious origin decreases (as buyers may be wary of losing the good later on), which reduces the expected gains of thieves and embezzlers, making them less aggressive at the margin. This in turn makes it cheaper for the owner to protect her property, thus creating an incentive towards more self-protection for the owner. Similarly, on the buyer’s side, owner protection increases the benefits of inquiring about title but also makes goods cheaper and, hence, lowers the cost of not doing so.

Overall, the parties’ incentives may be positively or negatively affected

66. In contrast, the literature on private takings originated from Guido Calabresi & A. Douglas Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089 (1972) which almost entirely focuses on the maximization of ex post value. The problem addressed in this literature is the maximization of the chance that the good ends up in the hands of the highest value user. When voluntary transactions fail this goal because of transaction costs, involuntary transactions (takings) may be tolerated. Differently from this literature, in a GFP situation the “taking” is effectuated by an intermediary (a thief or an embezzler) rather than directly by the taker (buyer, in our setup) and hence the transaction is always involuntary from the perspective of the owner and the buyer. See Dari-Mattiacci & Guerriero, *supra* note 2, at 555 & n.61.

67. See generally Dari-Mattiacci, Guerriero & Huang, *supra* note 11, for a formal model of this trade-off.

by increased legal protection, weakening the power of the incentive-theory to explain the design of GFP rules for theft and embezzlement and, in turn, first-order divergence in GFP rules. We argue, however, that incentives can contribute to understanding second-order convergence in GFP rules.

We start with comparing theft with embezzlement. The core of the argument is that for any given marginal benefit of self-protection for the owner, the marginal cost of self-protection for the owner is lower in the case of embezzlement than in the case of theft. The reason is intuitive: while thieves are strangers, an owner chooses whom to trust. In embezzlement cases, there are many ways the owner can protect her property, because most commonly she is in a (contractual) relationship with the potential embezzler and, hence, can both screen her counterparty *ex ante* and control her *ex post*. Therefore, comparatively, the owner has lower costs of care in embezzlement cases, while the buyer's incentives to inquire about title remain unaffected.

To stress our point, whatever effect owner protection has on the owner's incentives to self-protect—and we have argued above that this effect is indeterminate—this effect is different in theft as opposed to embezzlement cases. In particular, the effect is comparatively more likely to go towards increased self-protection in the case of embezzlement. Convergence emerges as a second-order effect, when comparing the relative (*a priori indeterminate*) effect of legal protection in different setups.⁶⁸

A similar trend can be detected by comparing the rules that apply to private transactions with those pertaining to commercial transactions made in a market, at an auction, or through a professional seller. In the latter set of cases, buyer protection is systematically stronger. This is because the original owner's ability to protect her property remains unchanged while the buyer's ability to inquire about title may be far greater in private transactions as compared to commercial settings. In this case, information about title, whenever available, should have already been acquired by the intermediary so there is little scope for any additional buyer's inquiry. It may therefore be preferable to attempt to incentivize the owner.

68. We cannot exclude, however, that the *ex post*-value theory could also help explain differences between private and commercial sales and between theft and embezzlement in cases where transaction costs systematically vary across these environments. The interaction between the original owner and the intermediary, and the higher complexity of commercial environments might increase transaction costs and call for weaker original owners' property rights. See Calabresi & Melamed, *supra* note 66, at 1095–97; Guerriero, *supra* note 63 (manuscript at 26–27).

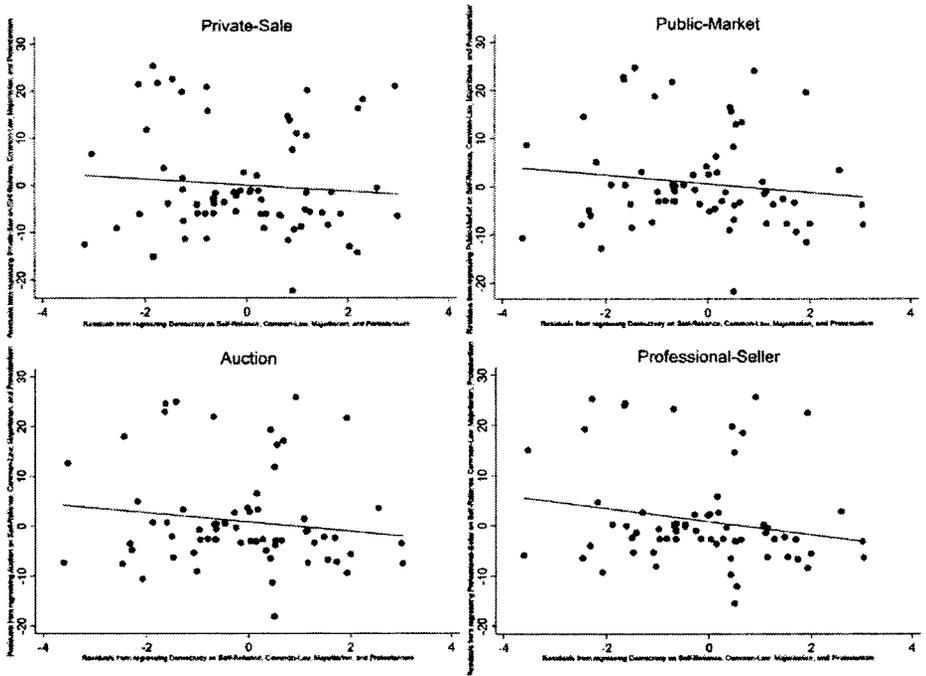
CONCLUSION

In this article, we have documented first-order divergence and second-order convergence in GFP rules around the world. Our empirical analysis shows that the most likely cause of divergence is cultural differences across countries, while a likely push towards convergence remains the functional uniformity of these rules. Of the two main theoretical approaches to GFP rules, we have shown that the *ex post*-value approach is well suited to rationalize divergence, while the *ex ante*-incentive approach explains convergence. While navigating the different camps that have polarized the debate on the normative and positive analysis of GFP rules, at the various junctures of our analysis we end up vindicating both sides of the debate and emphasize that different approaches contribute different layers of the theory we advance. Our conclusions do not imply that other factors are not at play. We have offered an exploratory analysis of the effects of morality, and future research may offer a more nuanced view.

APPENDIX

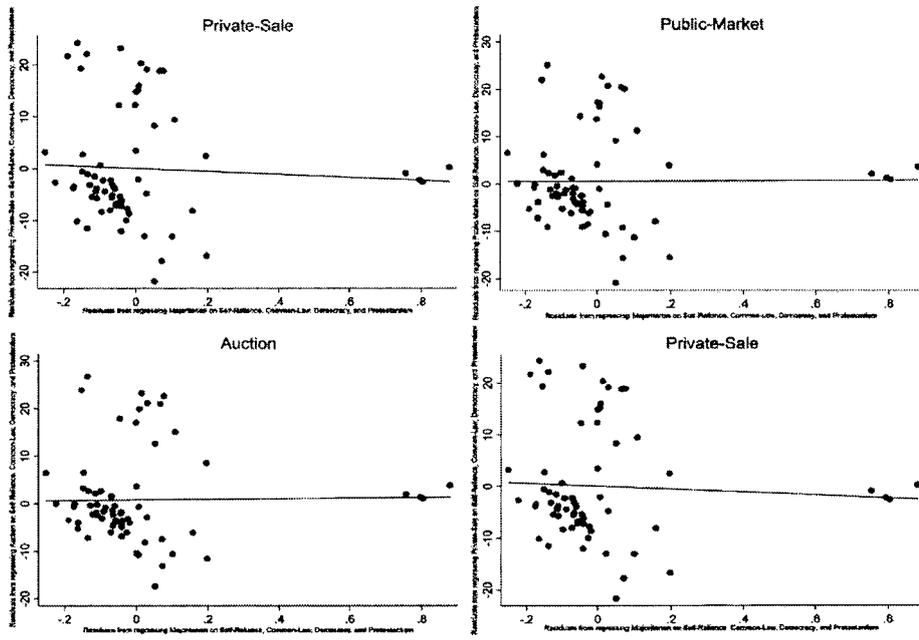
A. ADDITIONAL FIGURES

FIGURE 7. Democracy



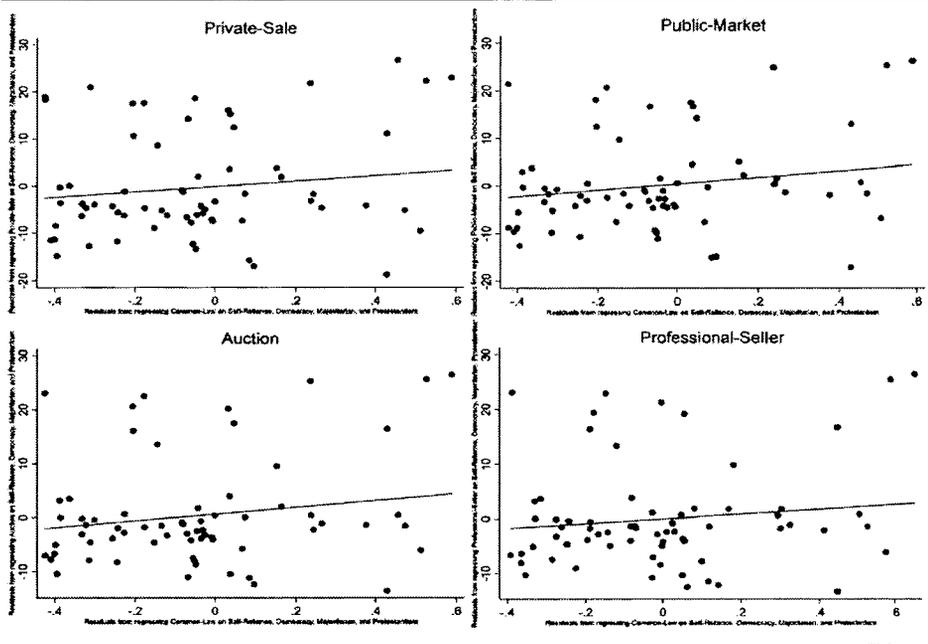
Notes: This figure shows the effect of democracy on GFP rules for embezzled goods. The graphs plot on the vertical axis the protection of the original owner's property of a good embezzled and then sold, respectively, through a private sale, in a public market, at an auction, or by a professional seller, and on the horizontal axis the inclusiveness of political institutions (see Appendix). We eliminate from each variable the variation that is explained by a culture of self-reliance, legal origins, a majoritarian electoral system, and Protestantism. The slope of each line is a coefficient obtained from regressing the property rights proxy on Democracy and the other control variables, and it is never significant at 5% or higher.

FIGURE 8. Majoritarian System



Notes: This figure shows the effect of a majoritarian electoral system on GFP rules for embbezzled goods. The graphs plot on the vertical axis the protection of the original owner’s property of a good embbezzled and then sold, respectively, through a private sale, in a public market, at an auction, or by a professional seller, and on the horizontal axis the use of a majoritarian electoral system (see Appendix). We eliminate from each variable the variation that is explained by a culture of self-reliance, legal origins, inclusive political institutions, and religious beliefs. The slope of each line is a coefficient obtained from regressing the property rights proxy on Majoritarian and the other control variables, and it is never significant at the 5% level or higher.

FIGURE 9. Legal Origins



Notes: This figure shows the effect of legal origins on GFP rules for embezzled goods. The graphs plot on the vertical axis the protection of the original owner's property of a good embezzled and then sold, respectively, through a private sale, in a public market, at an auction, or by a professional seller, and on the horizontal axis the jurisdiction's legal origins (see Appendix). We eliminate from each variable the variation that is explained by a culture of self-reliance, inclusive political institutions, a majoritarian electoral system and religious beliefs. The slope of each line is a coefficient obtained from regressing the property rights proxy on Common-Law and the other control variables, and it is never significant at 5% or better.

B. ECONOMETRIC ANALYSIS

Table 3: Summary of Variables

<i>Variables</i>	<i>Definition and Sources</i>	<i>Statistics</i>
Pro-owner legal institutions:		
Property-Private-E:	Years after which the good faith buyer definitively acquires ownership of an embezzled movable good purchased within a private sale.	8.904 (12.844) [68]
Property-Market-E:	Years after which the good faith buyer definitively acquires ownership of an embezzled movable good purchased within a public market.	7.066 (11.866) [68]
Property-Auction-E:	Years after which the good faith buyer definitively acquires ownership of an embezzled movable good purchased within an auction sale.	6.125 (11.238) [68]
Property-Professional-E:	Years after which the good faith buyer definitively acquires ownership of a stolen movable good purchased from a professional seller.	5.831 (10.813) [68]
Property-Private-S:	Years after which the good faith buyer definitively acquires ownership of a stolen movable good purchased within a private sale.	14.426 (12.997) [68]
Property-Market-S:	Years after which the good faith buyer definitively acquires ownership of a stolen movable good purchased within a public market.	12.162 (13.016) [68]
Property-Auction-S:	Years after which the good faith buyer definitively acquires ownership of a stolen movable good purchased within an auction sale.	10.044 (12.691) [68]
Property-Professional-S:	Years after which the good faith buyer definitively acquires ownership of a stolen movable good purchased from a professional seller.	10.853 (12.638) [68]
Drivers of Property Rights		
Culture:	First principal component extracted from the level of generalized trust and the importance of respect for other people self-reported to all the World Value Surveys and European Value Study up to the 2008.	0.171 (1.074) [58]
Enforcement:	First principal component extracted from the number of police personnel and the number of professional judges per 100,000 inhabitants both averaged between 1973 and 2009. Source: United Nations Survey of Crime Trends and Operations of Criminal Justice Systems, all available waves.	0.070 (0.973) [61]
Self-Reliance:	Indicator variable which equals 3 if the language of the plurality group is such that the rule forbidding first person pronoun drop is not operative and the number of second person pronouns that might be used in spoken language does not vary according to the social proximity between speakers; 2 if the language has either one of the two features, and 1 otherwise. Source: Kashima and Kashima (1998, 2005).	1.706 (0.811) [68]

Normalized first principal component extracted from the following variables coded for the year 2000: 1. Dummy for case law; 2. Dummy equal to one if only new evidence or issues of law can be reviewed, or if there is no appeal and zero if issues of both law and fact can be reviewed in appeal; 3. Dummy equal to one if judgment may be based on both law and equity grounds, and zero when they must be on law only; 3. Dummy equal to one if the evidence gathering procedure is adversarial and zero otherwise; 4. Dummy equal to one if the evidence is mostly submitted at oral hearings before the judge and zero otherwise.

Common-Law:	Source: Guerriero (2012).	0.422 (0.290) [68]
Democracy:	Executive constraints from the POLITY IV data set averaged over all the available years. Source: Marshall and Jaggers (2010).	4.766 (1.717) [68]
Majoritarian:	Dummy variable for electoral systems, equal to 1 if the lower house in a country is elected under plurality rule, 0 otherwise. Only legislative elections (lower house) are considered. Source: Blume et al. (2009).	0.059 (0.237) [68]
Protestantism:	Protestants as a share of the whole population in 1980. Source: La Porta et al. (1999).	15.797 (24.989) [68]

Notes: ^a The first figure for each variable is the mean, whereas the second in brackets is the standard deviation; ^b Mean and standard deviation are calculated for the sample used in all the figures.

TABLE 4. OLS

	(1)	(2)	(3)	(4)
	The dependent variable is:			
	<i>Property-Private-E</i>	<i>Property-Market-E</i>	<i>Property-Auction-E</i>	<i>Property-Professional-E</i>
Culture	- 1.267 (1.613)	- 0.670 (1.405)	0.014 (1.353)	- 1.737 (1.256)
Enforcement	- 3.545 (1.850)*	- 4.694 (1.612)***	- 3.315 (1.553)**	- 3.197 (1.441)**
Estimation	2SLS			
Adjusted R ²	0.04	0.11	0.05	0.09
# of Observations	55	55	55	55

Notes: ^a Standard errors in parentheses; ^b *** denotes significant at the 1% confidence level; **, 5%; *, 10%; ^c All specifications include a constant term.

TABLE 5. 2SLS

	(1)	(2)	(3)	(4)
	The dependent variable is:			
	<i>Property-Private-E</i>	<i>Property-Market-E</i>	<i>Property-Auction-E</i>	<i>Property-Professional-E</i>
Culture	3.700 (3.832)	4.978 (3.375)	4.245 (2.653)	3.233 (2.776)
Enforcement	- 16.655 (8.153)**	- 15.678 (7.181)**	- 9.126 (5.644)*	- 10.989 (5.907)*
First Stage for Culture				
Pronoun-Drop	- 1.344 (0.261)***	- 1.344 (0.261)***	- 1.344 (0.261)***	- 1.344 (0.261)***
Pronoun-Diff	0.054 (0.297)	0.054 (0.297)	0.054 (0.297)	0.054 (0.297)
First Stage for Enforcement				
Pronoun-Drop	- 0.400 (0.272)	- 0.400 (0.272)	- 0.400 (0.272)	- 0.400 (0.272)
Pronoun-Diff	0.762 (0.309)**	0.762 (0.309)**	0.762 (0.309)**	0.762 (0.309)**
P-value of under-identification test	0.02	0.02	0.02	0.02
Estimation	2SLS			
# of Observations	55	55	55	55

Notes: ^a Standard errors in parentheses; ^b *** denotes significant at the 1% confidence level; **, 5%; *, 10%; ^c All specifications include a constant term; ^d The null hypothesis of the Kleibergen-Paap test is that the excluded instruments are uncorrelated with the endogenous regressor.

TABLE 6. Reduced Forms

	(1)	(2)	(3)	(4)
	The dependent variable is:			
	<i>Property-Private-E</i>	<i>Property-Market-E</i>	<i>Property-Auction-E</i>	<i>Property-Professional-E</i>
Self-Reliance	8.880 (3.006)***	9.649 (2.571)***	7.605 (2.486)***	7.291 (2.398)***
Common-Law	6.631 (6.041)	9.211 (5.168)*	9.192 (4.997)*	7.160 (4.819)
Democracy	- 1.204 (1.226)	- 1.440 (1.049)	- 1.279 (1.014)	- 1.750 (0.978)*
Majoritarian	- 2.446 (7.956)	1.818 (6.807)	1.843 (6.581)	2.400 (6.347)
Protestantism	- 0.188 (0.079)**	- 0.172 (0.067)**	- 0.146 (0.065)**	- 0.111 (0.063)*
Estimation	OLS			
Adjusted R ²	0.14	0.23	0.16	0.14
# of Observations	55	55	55	55

Notes: ^a Standard errors in parentheses; ^b *** denotes significant at the 1% confidence level; **, 5%; *, 10%; ^c All specifications include a constant term.

TABLE 7. Reduced Forms with Extra Controls

	(1)	(2)	(3)	(4)
	The dependent variable is:			
	<i>Property-Private-E</i>	<i>Property-Market-E</i>	<i>Property-Auction-E</i>	<i>Property-Professional-E</i>
Self-Reliance	4.867 (3.521)	7.700 (3.068)**	8.524 (2.993)***	6.599 (2.753)**
Common-Law	1.651 (6.741)	5.291 (5.875)	6.371 (5.731)	9.053 (5.270)*
Democracy	- 1.184 (1.361)	- 1.010 (1.186)	- 2.057 (1.157)*	- 1.219 (1.064)
Majoritarian	- 1.350 (7.583)	4.481 (6.609)	6.034 (6.447)	0.548 (5.929)
Protestantism	- 0.070 (0.093)	- 0.082 (0.081)	- 0.114 (0.079)	- 0.110 (0.073)
Estimation	OLS			
Adjusted R ²	0.26	0.31	0.24	0.29
# of Observations	55	55	55	55

Notes: ^a Standard errors in parentheses; ^b *** denotes significant at the 1% confidence level; **, 5%; *, 10%; ^c All specifications include a constant term, genetic diversity, 2010 log of GDP per capita, intensity of external warfare, intensity of internal warfare, dummy for ex-British colony, 2010 Crude oil proved reserves in US dollar per capita (more details on definitions and sources available upon request).

TABLE 8. Reduced Forms with Extra Controls for Morality

	(1)	(2)	(3)	(4)
	The dependent variable is:			
	<i>Property-Private-E</i>	<i>Property-Market-E</i>	<i>Property-Auction-E</i>	<i>Property-Professional-E</i>
Self-Reliance	6.999 (3.721)*	8.872 (3.358)**	6.647 (3.321)**	5.093 (2.849)*
Common-Law	- 1.191 (6.703)	4.697 (6.049)	6.654 (5.984)	2.649 (5.133)
Democracy	0.393 (1.278)	- 0.886 (1.153)	- 0.676 (1.141)	- 0.230 (0.979)
Majoritarian	- 6.213 (7.657)	- 0.544 (6.911)	0.361 (6.836)	0.168 (5.864)
Protestantism	- 0.145 (0.083)*	- 0.129 (0.075)*	- 0.094 (0.074)	- 0.059 (0.063)
Legal	- 92.205 (60.325)	- 79.753 (54.443)	- 23.855 (53.854)	- 1.423 (46.200)
High-Status	66.652 (37.831)*	45.279 (34.143)	60.140 (33.773)*	76.199 (28.973)**
Young	- 123.711 (44.599)***	- 70.919 (40.251)*	- 34.307 (39.815)	- 57.742 (34.156)*
Estimation	OLS			
Adjusted R ²	0.23	0.23	0.09	0.10
# of Observations	51	51	51	51

Notes: ^a Standard errors in parentheses; ^b *** denotes significant at the 1% confidence level; **, 5%; *, 10%; ^c All specifications include a constant term. *Legal*, *High-Status* and *Young* capture respectively social preferences for law-abiding, high-status and young individuals obtained by the Moral Machine project (more details on definitions available upon request).

TABLE 9. Reduced Forms – Focusing on Indo-European Languages

	(1)	(2)	(3)	(4)
	The dependent variable is:			
	<i>Property-Private-E</i>	<i>Property-Market-E</i>	<i>Property-Auction-E</i>	<i>Property-Professional-E</i>
Self-Reliance	10.218 (3.217)***	10.258 (3.086)***	7.935 (2.975)**	7.194 (2.679)***
Common-Law	2.604 (6.769)	6.202 (6.492)	6.772 (6.261)	3.884 (5.636)
Democracy	- 0.849 (1.322)	- 1.474 (1.268)	- 1.203 (1.222)	- 1.045 (1.100)
Majoritarian	- 1.121 (7.532)	1.664 (7.223)	1.423 (6.966)	1.410 (6.271)
Protestantism	- 0.173 (0.083)**	- 0.153 (0.080)*	- 0.135 (0.077)*	- 0.116 (0.069)*
Estimation	OLS			
Adjusted R ²	0.20	0.22	0.14	0.12
# of Observations	46	46	46	46

Notes: ^a Standard errors in parentheses; ^b *** denotes significant at the 1% confidence level; **, 5%; *, 10%; ^c All specifications include a constant term.

C. LIST OF COUNTRY EXPERTS

Besa Tauzi, Boga & Associates (Albania); António Vicente Marques and Cláudia Veloso, AVM-Advogados (Angola); Martín Bensadon, Marval O'Farrell & Marval (Argentina); Armen Melkumyan, Prudence CJSC (Armenia); Michael Back, Freehills (Australia); Wolfgang Faber, University of Salzburg (Austria); Rashid Aliyev, Baker & McKenzie, Baku, CIS Limited (Azerbaijan); Saifuddin Mahmood, Hassan Radhi & Associates (Bahrain); Al Amin Rahman and Sabrina Zarin, FM Associates (Bangladesh); Amina Khatoon, Doulah & Doulah (Bangladesh); Aliaksandr Danilevich, Belarusian State University (Belarus); Sergei Makarchuk, Law Firm CHSH Cerha Hempel Spiegelfield Hlawati, Minsk Office (Belarus); Caroline Cauffman, Maastricht University and University of Antwerp (Belgium); Tania Moody, Barrow & Williams (Belize); Mario Kempff and Patricio Rojas, CR & F Rojas Abogados (Bolivia); Meliha Povlakić and Darja Softić Kadenić, University of Sarajevo (Bosnia and Herzegovina); Rafael Gagliardi and Newton Marzagão, Demarest & Almeida Advogados

(Brazil); Dimitar Stoimenov, Peterka & Partners Law Firm (Bulgaria); Camille Razalison and Adrien Rangira, John W Ffooks & Co (Burkina Faso and Ivory Coast); Jehny Ramiandrisoa and Adrien Rangira, John W Ffooks & Co (Burundi); Nimrod E Mkono, Gilbert LP Nyatanyi, Lambert Nigarura, and René-Claude Madebari, Mkono & Co. Burundi (Burundi); Eddy Ratianarivo and Adrien Rangira, John W Ffooks & Co (Cameroon); Matías Ignacio De Marchena Vicuña, Claro y Cía (Chile); Elliott Youchun Chen, Beijing Jun Ze Jun Law Offices, Shenzhen (China); Jie Chen, Jun He Law Offices (China); Ernesto Rengifo García, Universidad Externado de Colombia and Garrido & Rengifo Abogados (Colombia); Adrián Álvarez Orellana, Consortium Laclé & Gutiérrez (Costa Rica); Eduardo Calderon, Adriana Castro and Manuel Santos, BLP Abogados (Costa Rica); Hano Ernst, University of Zagreb (Croatia); Tatjana Josipovic, University of Zagreb (Croatia); Stéphanie Laulhé Shaelou, University of Central Lancashire (Cyprus); Alexandr Thöndel, Charles University (Czech Republic); Michaela Zuklínová, Charles University (Czech Republic); Arnauld Kayembe Tabu, University of Kinshasa and Kayembe Tabu Law Office Kinshasa (DRC) (Democratic Republic of Congo); Bukayafwa Deo Gratias, MBM-Conseil SCA (Democratic Republic of Congo); Francois Butedi, SADC-CNGO (Democratic Republic of Congo); Phebe Mavungu Clément, University of the Witwatersrand (Democratic Republic of Congo); Ole Borch, Bech-Bruun (Denmark); Tobias Vieth, Danders & More (Denmark); Laura Bobea Escoto, Medina & Rizek, Abogados (Dominican Republic); Pablo Ortiz-Garcia and Luis Marin-Tobar, Perez Bustamante & Ponce (Ecuador); Roque Albuja, Quevedo & Ponce (Ecuador); Ahmed El-Gammal and Nihal Madkour, Shalakany Law Office (Egypt); Monica Machuca, Aczalaw (El Salvador); Kai Kullerkupp, University of Tartu (Estonia); Liina Linsi and Monika Tamm, Lawin (Estonia); Molla Mengistu, School of Law, Addis Ababa University (Ethiopia); Muradu A Srur, Addis Ababa University, School of Law (Ethiopia); Jarmo Tuomisto, University of Turku (Finland); Sophie Tavergnier and Philippe Xavier-Bender, Gide Loyrette Nouel (France); David Kakabadze, Georgian Legal Partnership (Georgia); Vanessa Pickenpack and Klaus Guenther, Oppenhoff & Partners (Germany); Ellen Bannerman, Bruce-Lyle, Bannerman & Associates (Ghana); Norma Dawson, Queen's University Belfast (Great Britain and Northern Ireland); Ben McFarlane, University College London (Great Britain, Hong Kong and Malaysia); Alexandra Economou, Drakopoulos Law Firm (Greece); Cristóbal Fernández and María de la Concepción Villeda, Mayora & Mayora, S.C. (Guatemala); Juan José Alcerro Milla, Carolina Aguirre Larios and Melissa Amaya Pastrana, Aguilar Castillo Love (Honduras); Gabor Fejes, Oppenheim and Partners Freshfields Bruckhaus

Deringer (Hungary); Ciccu Mukhopadhaya and Surjendu Das, Amarchand Mangaldas and Suresh A. Shroff and Company, New Delhi (India); Nafis Adwani, Ali Budiardjo, Nugroho, Reksodiputro (Indonesia); Behrooz Akhlaghi, Shahrzad Majdameli, Encyeh Seyed Sadr, Camellia Abdolsamad, Ali Shahabi, Seyed Iman Mohamadian, Dr. Behrooz Akhlaghi & Associates (Iran); Caterina Gardiner, National University of Ireland, Galway (Ireland); Amnon Lehavi, Radzyner School of Law, Interdisciplinary Center (IDC) Herzliya (Israel); Alessio Greco, Istituto Mediterraneo per i Trapianti e Terapie ad Alta Specializzazione (Italy); Courtney B. Smith, Foga Daley, Attorneys at law (Jamaica); Hiroo Atsumi, Atsumi & Sakai (Japan); Bassam Abu-Rumman, Ali Sharif Zubi Advocates & Legal Consultants (Jordan); Dariya Saginova, Grata Law Firm (Kazakhstan); Saule Massalina, Salans law firm (Kazakhstan); Valikhan Shaikenov, Aequitas Law Firm (Kazakhstan); Peter Gachuhi, Kaplan and Stratton Advocates (Kenya); Atdhe Dika and Vegim Kraja, Kalo & Associates Law Firm (Kosovo); Al Noor, Al -Twajri and Partners Law Firm (Kuwait); Babitskaya Elena Viktorovna, Veritas Law Agency Limited Liability Company (Kyrgyz Republic); Kanat Seidaliev, Grata Law Firm (Kyrgyz Republic); Nurlan Alymbaev, Law Firm Alymbaev (Kyrgyz Republic); Julija Kolomijceva, bnt Klauberg Krauklis Zab (Latvia); Tiisetso Sello-Mafatle, Sello-Mafatle Attorneys (Lesotho); Jaunius Gumbis, Lawin Lideika, Petrauskas, Valiūnas and partners (Lithuania); Simas Gudynas, Lawin Lideika, Petrauskas, Valiūnas and partners (Lithuania); Alex Schmitt, Bonn Schmitt Steichen (Luxembourg); Nenad Gavrilovic, Faculty of Law 'Iustinianus Primus', Skopje, University 'Ss Cyril and Methodius' (Macedonia); Fatima Diarra, Cabinet d'Avocats Sim (Mali); Jotham Scerri-Diacono, Ganado Advocates (Malta); Vincent Chong Leung, Juristconsult Chambers, cabinet d'avocats (Mauritius); Héctor Calatayud Izquierdo, Basham, Ringe y Correa (Mexico); Octavian Cazac and Vladimir Palamarciuc, Turcan Cazac Law Firm (Moldova); Nergui Enkhtsetseg, Anand & Batzaya Advocates (Mongolia); Neda Ivovic, University of Donja Gorica (Montenegro); Zohra Hasnaoui and Ahmad Hussein, Hasnaoui Law Firm AGIP (Abu-Ghazaleh Intellectual Property - Morocco) (Morocco); Carlos de Sousa E Brito, Carlos de Sousa E Brito & Associados (Mozambique); Win Win Aye and Khin Wint Maw, Kelvin Chia Yangon Limited (Myanmar); Willem Bodenstein and Mike Bottger, Lorentz Angula Incorporated (Namibia); Arthur Salomons, University of Amsterdam (Netherlands); Roger Tennant Fenton, Southern Cross Chambers (New Zealand); Minerva Bellorin R., Diogenes E, Velasquez V, and Mazziel A Rivera Núñez, Aczalaw (Nicaragua); Lydia Rosoanirina and Adrien Rangira, John W Ffooks & Co (Niger); Joseph Eimunjjeze, Udo Udoma & Belo-Osagie (Nigeria); Jan-Ove Færstad,

University of Bergen (Norway); Alastair R. Neale and Ruqaya Al Khanbashi, Jihad Al Taie Law Office (Oman); Zaid Al Khattab, Talala Abu Ghazaleh & Co (Oman); Ahsan Zahir Rizvi, Rizvi, Isa, Afridi & Angell (Pakistan); Ivette E Martínez, Patton Moreno & Asvat (Panama); Ramon Varela, Morgan & Morgan (Panama); Esteban Burt, Peroni Sosa Tellechea Burt & Narvaja (Paraguay); Manuel Villa-García Noriega, Estudio Olaechea S Civil de RL (Perù); Eduardo de los Angeles, Romulo Mabanta Buenaventura Sayoc & de los Angeles (Philippines); Jerzy Andrzej Pisuliński and Michal Kucka, Jagiellonian University in Cracow (Poland); Margarida Costa Andrade, University of Coimbra (Portugal); Monica Jardim, University of Coimbra (Portugal); Thelma Rivera, Goldman, Antonetti & Córdova, PSC (Puerto Rico); Ejan Mackaay, Université de Montréal (Quebec, Canada); Cristina Bolea and Vlad Peligrad, Clifford Chance Badea SCA (Romania); Magdalena Raducanu, Salans Moore si Asociatii SCPA (Romania); Sergey Strembelev and Natalia Dialektova, Egorov Puginsky Afanasiev & Partners Law Offices (Russia); Vannissa Rakotonirina and Adrien Rangira, John W Ffooks & Co (Rwanda and Senegal); Stephen Matthews and Abdullah Al Saab, The Law Office of Mohammed S Al-Rasheed (Saudi Arabia); Andrew Steven, University of Edinburgh (Scotland, UK); Nataša Lalatović Đorđević, Moravčević Vojnović and partners in cooperation with Schoenherr (Serbia); Žarko S. Borovčanin, Jankovic, Popovic & Mitic od (Serbia); Oredola Martyn, Clas Legal (Sierra Leone); Yi-Ling Teo, Gateway Law Corporation (Singapore); Katarína Čechová, Čechová & Partners (Slovak Republic); Tomaz Kerestes, University of Maribor (Slovenia); Athol Gordon, Bowman Gilfillan Attorneys (South Africa); Chun-Wook Hyun, Kim & Chang (South Korea); Carlos Díez Soto, Technical University of Cartagena, and Isabel González Pacanowska, University of Murcia (Spain); John Wilson, John Wilson Partners, Attorneys at Law & Notaries Public (Sri Lanka); Martin Lilja, Salzburg University (Sweden); Bénédict Foëx, University of Geneva (Switzerland); Deema Abu Zulaikha, Tag-Legal Syria (Syria); Kamanga Wilbert Kapinga, CRB Africa Legal (Tanzania); Cynthia M Pornavalai, Tilleke & Gibbins (Thailand); Phisit Dejchaiyasak, Weerawong, Chinnavat and Peangpanor Limited (Thailand); Stephen A Singh, Johnson, Camacho and Singh (Trinidad and Tobago); Issam Mokni, Ferchiou & Associés (Tunisia); Yesim Atamer, Ece Bas, Başak Başoğlu, Meliha Sermin Paksoy, and Pinar Yazici, Istanbul Bilgi University (Turkey); Emmanuel Kasimbazi, Makerere University (Uganda); Oleg Boichuk, Magisters (Ukraine); Rami Abdellatif and Mohammed Kamran, Al Tamimi Advocates & Legal Consultants (United Arab Emirates); Steven Walt, University of Virginia School of Law (United States); Pedro J Montano, Universidad de la

República and Scelza & Montano (Uruguay); Juan Enrique Aigster and José Alberto Ramírez, Hoet Pelaez Castillo & Duque Abogados (Venezuela); Dang The Duc and Tuong Tran, Indochine Council (Vietnam); Sydney Chisenga, Corpus Legal practitioners (Zambia); Peter Lloyd, Gill, Godlonton & Gerrans (Zimbabwe).

D. LIST OF COUNTRIES AND COUNTRY CODES

TABLE 10. List of Countries and Country Codes

<i>Country</i>	<i>Code</i>	<i>Country</i>	<i>Code</i>	<i>Country</i>	<i>Code</i>
Albania	ALB	Honduras	HND	Pakistan	PAK
Angola	AGO	Hong Kong	HKG	Panama	PAN
Argentina	ARG	Hungary	HUN	Paraguay	PRY
Armenia	ARM	India	IND	Peru	PER
Australia	AUS	Indonesia	IDN	Philippines	PHL
Austria	AUT	Iran	IRN	Poland	POL
Azerbaijan	AZE	Ireland	IRL	Portugal	PRT
Bahrain	BHR	Israel	ISR	Puerto Rico	PRI
Bangladesh	BGD	Italy	ITA	Romania	ROU
Belarus	BLR	Jamaica	JAM	Russia	RUS
Belgium	BEL	Japan	JPN	Rwanda	RWA
Belize	BLZ	Jordan	JOR	Saudi Arabia	SAU
Bolivia	BOL	Kazakhstan	KAZ	Scotland	SCT
Bosnia and Herzegovina	BIH	Kenya	KEN	Senegal	SEN
Brazil	BRA	Kosovo	KOS	Serbia	SCG
Bulgaria	BGR	Kuwait	KWT	Sierra Leone	SLE
Burkina Faso	BFA	Kyrgyz Republic	KGZ	Singapore	SGP
Burundi	BDI	Latvia	LVA	Slovak Republic	SVK
Cameroon	CMR	Lesotho	LSO	Slovenia	SVN
Chile	CHL	Lithuania	LTU	South Africa	ZAF
China	CHN	Luxembourg	LUX	South Korea	KOR
Colombia	COL	Macedonia	MKD	Spain	ESP

Costa Rica	CRI	Malaysia	MYS	Sri Lanka	LKA
Cote d'Ivoire	CIV	Mali	MLI	Sweden	SWE
Croatia	HRV	Malta	MLT	Switzerland	CHE
Cyprus	CYP	Mauritius	MUS	Syria	SYR
Czech Republic	CZE	Mexico	MEX	Tanzania	TZA
Denmark	DNK	Moldova	MDA	Thailand	THA
Dominican Republic	DOM	Mongolia	MNG	Trinidad & Tobago	TTO
Ecuador	ECU	Montenegro	MNE	Tunisia	TUN
Egypt	EGY	Morocco	MAR	Turkey	TUR
El Salvador	SLV	Mozambique	MOZ	Uganda	UGA
Estonia	EST	Myanmar	MMR	Ukraine	UKR
Ethiopia	ETH	Namibia	NAM	United Arab Emirates	ARE
Finland	FIN	Netherlands	NLD	United States	USA
France	FRA	New Zealand	NZL	Uruguay	URY
Georgia	GEO	Nicaragua	NIC	Venezuela	VEN
Germany	DEU	Niger	NER	Vietnam	VNM
Ghana	GHA	Nigeria	NGA	Zaire (Congo Democratic Republic)	COD
Great Britain	GBR	Northern Ireland	NIR	Zambia	ZMB
Greece	GRC	Norway	NOR	Zimbabwe	ZWE
Guatemala	GTM	Oman	OMN		
