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Law as a market standard: Voluntary unification in contract and company law

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ABSTRACT

It is a common perception that differences in private laws impede cross-border business activity. The goal of enhancing economic integration, both regionally and globally, often animates legislative advances towards harmonizing or unifying legal rules across jurisdictions. This chapter invokes the economic theory of standards competition or “network effects” as a framework to evaluate the promise of voluntary law unification. It highlights that standardization need not be the responsibility of lawmakers. With free choice of law, markets themselves produce their own degrees and patterns of standardization. The paper makes several predictions about the scope of market standardization in two particularly important areas, contract law and company law; it also adduces some empirical evidence. One policy implication is that international standardization does not depend on crafting uniform law. The laws of national jurisdictions can also be suitable as market standards for cross-border transactions. This adds a new perspective to the continuing debate about regulatory competition between jurisdictions: The winners of the race are decided as much by network effects as by differences in the substantive quality of their laws. Better law standardization can be a desirable outcome of jurisdictional competition.

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1 Law as a market standard: Voluntary unification in contract and company law

1.1 Introduction

Global commerce faces a dazzling and at times lavish manifoldness of private laws. Each country and many more jurisdictions maintain their own sets of rules for the various kinds of commercial transactions. Why a need should exist for hundreds of different contract laws capable of regulating a sale of goods is far from obvious. At all times, attempts have been made to cut back the proliferous branches of law and to tackle the incongruities between different legal regimes. Examples include the national codifications in Europe in the 18th and 19th centuries as well as endeavors for uniform laws within the United States as well as at the international level. Regional international or supranational organizations may also pursue the harmonization or unification of private laws to facilitate cross-border economic activity. The European Union has adopted so many measures in contract law, company law, and other fields that “European Private Law” has become a well-established term.² By contrast, international organizations in Asia such as the Association of Southeast Asian Nations (ASEAN) have been far less active in promulgating harmonized or unified law.³

¹ The contribution builds on an earlier article in German: A. Engert, ‘Regelungen als Netzgüter, Eine Theorie der Rechtsvereinheitlichung im Vertragsrecht’ (2013) *Archiv für die civilistische Praxis* 213, 321. David Haubner has provided a very helpful translation of the original article into English, parts of which have entered the present text.

² See only the “Draft Common Frame of Reference,” a broad comparative and consolidating study in the form of a general codification of private law commissioned by the EU Commission, C. von Bar, E. Clive, and H. Schulte-Nölke, *Principles, Definitions and Model Rules of European Private Law: Draft Common Frame of Reference (DCFR)* (Berlin: De Gruyter, 2009).

³ See, e.g., J. Wong, ‘On Legal Harmonisation Within ASEAN’ (2013) *Juris Illuminae* 5, available at <http://www.singaporelawreview.com/juris-illuminae-entries/2015/on-legal-harmonisation-within-asean> (last visited 1 April 2018). On the initiative to create “Principles of Asian Contract Law” similar to corresponding work in Europe (such as the one mentioned in n. 2), see S. Han, ‘Principles of Asian Contract Law: An Endeavor of Regional Harmonization of Contract Law in East Asia’ (2013) *Villanova Law Review* 58, 589. For the rather modest progress in e-commerce law, see United Nations Conference on Trade and Development, *Review of e-commerce legislation harmonization in the Association of South East Asian Nations* (New York and Geneva, 2013).

This contribution offers a conceptual framework for thinking about the variety of private laws, the potential need for unification, and ways to achieve it. The economics of network effects explain why standardization is often beneficial and how it can be accomplished—or missed. Network effects occur when the value of a good for the individual user grows with the number of other users. Popular examples are means of communication, such as telephone networks but also languages. The law likewise serves human interaction. Aptly, it has been called the “language of cooperation,”⁴ and as such, it exhibits network effects. The rationale for law unification then is to benefit from stronger network effects through standardization: Parties “speak the same tongue” when it comes to law.

The economics of network effects highlight that standardization need not be the responsibility of lawmakers. With free choice of law, markets themselves produce their own degrees and patterns of standardization. The paper makes several predictions about the scope of market standardization in two particularly important areas, contract law and company law; it also adduces some empirical evidence. One policy implication is that international standardization does not depend on crafting uniform law. The laws of national jurisdictions can also be suitable as market standards for cross-border transactions. This adds a new perspective to the continuing debate about regulatory competition between jurisdictions: The winners of the race are decided as much by network effects as by differences in the substantive quality of their laws. Better law standardization can be a desirable outcome of jurisdictional competition. This is especially relevant in Asia where the prospect of government-led law harmonization or unification appears rather dim. It deserves careful consideration whether striving for international uniform law promises a significant improvement over jurisdictional competition that justifies the cost.

⁴ L. Fuller, ‘Human Interaction and the Law’ (1969) *American Journal of Jurisprudence* 14, 1, 2; B. Druzin, ‘Buying Commercial Law: Choice of Law, Choice of Forum, and Network Externalities’ (2009) *Tulane Journal of International and Comparative Law* 18, 1, 18–19 (citing Fuller in connection with network effects of laws). See also S. Sanga, ‘Choice of Law: An Empirical Analysis’ (2014) 11 *Journal of Empirical Legal Studies* 894, 923 (comparing laws to languages in terms of network effects).

The article proceeds in three steps: Section 1.2 introduces the economic theory of network effects. Section 1.3 analyzes the character of laws as networks and uses it to assess the scope of voluntary market standardization under free choice of law in contract and company law. Section 1.4 takes a normative perspective leading to a comparative evaluation of jurisdictional competition and international uniform law as policy approaches. A short outlook in Section 1.5 concludes.

1.2 Network effects: The economics of standardization

The economics of network effects originated in the analysis of markets in information technologies.⁵ But these technologies are only one conspicuous example. The ambit of the theory reaches much further.⁶

⁵ Seminally, yet without using the term “network effects,” J. Rohlfs, ‘A Theory of Interdependent Demand for a Communications Service’ (1974) *Bell Journal of Economics* 5, 16; the more recent debate started with M. L. Katz and C. Shapiro, ‘Network Externalities, Competition, and Compatibility’ (1985) *American Economic Review* 75, 424; M. L. Katz and C. Shapiro, ‘Technology Adoption in the Presence of Network Externalities’ (1986) *Journal of Political Economy* 94, 822; J. Farrell and G. Saloner, ‘Standardization, Compatibility, and Innovation’ (1985) *RAND Journal of Economics* 16, 70; J. Farrell and G. Saloner, ‘Installed Base and Compatibility: Innovation, Product Preannouncements and Predation’ (1986) *American Economic Review* 76, 940; an early precursor is H. Leibenstein, ‘Bandwagon, Snob, and Veblen Effects in the Theory of Consumers’ Demand’ (1950) *Quarterly Journal of Economics* 64, 183. For useful overviews see J. Farrell and P. Klemperer, ‘Coordination and Lock-in: Competition with Switching Costs and Network Effects’, in: M. Armstrong and R. Porter (eds.), *Handbook of Industrial Organization*, vol. 3 (Amsterdam: Elsevier, 2007), p. 1967; D. Birke, ‘The Economics of Networks: A Survey of the Empirical Literature’ (2009) *Journal of Economic Surveys* 23, 762. For the competition law literature on network effects, see the survey article by M. A. Lemley and D. McGowan, ‘Legal Implications of Network Economic Effects’ (1998) *California Law Review* 86, 479; D. Spulber, ‘Consumer Coordination in the Small and in the Large: Implications for Antitrust in Markets with Network Effects’ (2008) *Journal of Competition Law and Economics* 4, 207; D. Spulber and C. Yoo, ‘Antitrust, the Internet, and the Economics of Networks’, in: R. D. Blair and D. D. Sokol (eds.), *Oxford Handbook of International Antitrust Economics* (Oxford: Oxford University Press, 2014), p. 380.

⁶ Consider the interpretation of globalization as an increase in network effects D. S. Grewal, *Network Power: The Social Dynamics of Globalization* (New Haven: Yale University Press, 2008). Application of the theory to social norms see M. Adams, ‘Norms, standards, rights’ (1996) *European Journal of Political Economy* 12, 363; A. Aviram, ‘Regulation by Networks’ (2003) *Brigham Young University Law Review* 1179, 1194–1203; A. Engert, ‘Norms, Rationality, and Communication: A Reputation Theory of Social Norms’ (2006) *Archiv für Rechts- und Sozialphilosophie* 335, 341–343.

1.2.1 Network effects as advantages of standardization

In the traditional economic view, the value of a good depends on its inherent quality.⁷ Personal preferences and the good's properties determine which car, dessert, or piece of music we value most. Network goods exhibit an additional characteristic—network effects. Such an effect arises when the value of a good for the individual user increases with the number of other users of the same good or an equivalent, compatible one.⁸ Physical communication networks illustrate the idea: A single telephone is useless. It becomes valuable in connection with other telephones, and its value grows as more users are added to the network. To connect oneself to the telephone network generates a network effect for other users by increasing the value of the network for them. However, network effects do not depend on physical connections. Economically, the “network” can consist in any benefits from the use of compatible network goods by others.

The literature commonly differentiates between direct and indirect network effects. Direct network effects result from the ability to enter into direct exchange with other users of the same network.⁹ By contrast, indirect network effects arise through third parties who are not themselves users of the network good, especially when a larger user base attracts more suppliers of complementary goods. Human languages provide an example.¹⁰ The benefit from learning a language correlates with the number of people who can communicate in the language. There are—from a global perspective—stronger *direct network effects* of the English language than, say, the Romanian language (but the reverse is true in Romania). The usefulness of a language also increases with the amount of literature, media and technologies that

⁷ See G. Debreu, *Theory Of Value: An Axiomatic Analysis of Economic Equilibrium* (New Haven: Cowles, 1959), 29–30 (describing a “commodity” in the case of a physical good as being defined by physical characteristics and availability in space and time).

⁸ According to “Metcalfe’s law,” the value of a network results from possible links and therefore rises quadratically with the number of users, see C. Shapiro and H. R. Varian, *Information Rules: A Strategic Guide to the Network Economy* (Cambridge: Harvard University Press, 1999), p. 184. The real growth rate likely is much lower as most users connect only with a limited number of others.

⁹ See only Farrell and Klemperer, ‘Coordination and Lock-in’, p. 1974.

¹⁰ For network effects of human languages see J. Church and I. King, ‘Bilingualism and Network Externalities’ (1993) *Canadian Journal of Economics* 26, 337; Grewal, ‘Network Power’, pp. 71 et seq.

make use of it. The more a language is used in literature, politics, science, and the economy, the richer and better its means of expression. Whether a language offers such benefits also depends on the number of people speaking and understanding it. This constitutes an *indirect network effect*.

1.2.2 Network effects as a cause of market failure

In choosing between network goods, users have to consider two aspects: the inherent quality, which can differ like in any other type of good (e.g., the speech quality of telephone networks), and the network effects. Network effects cause a drive towards standardization: users prefer as few networks as possible with as many members as possible. Ignoring for a moment the quality aspect, the strongest network effects—and hence the greatest use—would be achieved with a single network as all-encompassing standard. A rational choice can then be made for a network good of lesser intrinsic quality if in exchange it offers greater network effects. For example, while an instant messenger service (such as ICQ, WhatsApp, or WeChat) may provide more advanced features, it could still be less attractive than a qualitywise inferior competitor that offers a larger user base.

Network effects imply that the decision of a user to join a network impacts not only herself but also others. In economic parlance, there is an “external effect” that could lead to market failure.¹¹ Specifically, users can fail to coordinate on the best network good and become stuck in an inferior network configuration. Given that users are interested both in network effects and quality, one can classify market failure in three categories: An inferior good may succeed in becoming the market standard because existing network effects outweigh the quality differences (“mis-standardization”). Network effects can prevent desirable segmentation of the market according to differing quality preferences (“over-standardization”). Finally, a market can fail to

¹¹ An “external effect” only entails an “externality” if it is not internalized through pricing or otherwise. For example, while joining a network produces network effects for other members, one also benefits from their membership. If these benefits are equivalent to the additional network effects, no externality occurs. As a result, there would be no risk of market failure. For possible internalization of network effects, see Farrell and Klemperer, ‘Coordination and Lock-in’, pp. 2020–2021; S. J. Liebowitz and S. E. Margolis, ‘Network Externality: An Uncommon Tragedy’ (1994) *Journal of Economic Perspectives* 8, 133, 140–144.

achieve the optimal amount of network effects because too many competing networks coexist (“under-standardization”).

As far as mis-standardization is concerned, suppose that one of two network goods is qualitywise superior, while both are capable of equivalent network effects. Still, there is the danger of a pernicious self-fulfilling prophecy: If users expect others to go for the inferior good or to have already done so, they will tend to do the same.¹² The same pattern can thwart useful differentiation. Network segmentation is preferable if quality demand varies and the advantages of a better tailored good outweigh the benefits of uniting in a single network. Nonetheless, the market can end up in over-standardization—not using sufficiently many different networks—if users with differing requirements fail to coordinate on a common alternative network good. Finally, a market can miss the optimal amount of network effects. If users expect sufficiently strong network effects to be maintained with one good (say, their original choice), while others flock to a new network, the market may splinter into more networks than would be desirable from the perspective of all users combined, resulting in under-standardization.¹³

An impediment to coordination on the most valuable network configuration are “switching costs:” Acquisition and use of a network good often demands investments, such as the price paid for buying the network good. The investments are often specific to the particular network and irrecoverable if the network is no longer used. If such specialization is needed, any change to another network requires a second investment. The need for a new investment constitutes switching costs: Having made the investment, it causes opportunity costs to no longer make (exclusive) use of it. This applies for example to learning a language: Specialization occurs because learning a language requires time and effort. Because these resources

¹² For coordination on an inferior network see Farrell and Saloner, ‘Standardization, Compatibility, and Innovation’, 70 (distinguishing “excess inertia” in an inferior standard from “excess momentum” towards an inferior standard); see generally Farrell and Klemperer, ‘Coordination and Lock-in’, pp. 2024–2026.

¹³ On the danger of network fragmentation *Katz/Shapiro*, Am. Econ. Rev. 75 (1985), 424, 434 et seq. (focusing on the provider’s decision to foster network effects by increased product compatibility). See also generally Farrell and Klemperer, ‘Coordination and Lock-in’, p. 2022–2024.

cannot be recovered, it is cost-saving to restrict oneself to the languages one already knows.

Switching costs explain why the past of the market also shapes its future. If a network already has an “installed base” of specialized users, new entrants will tend to expect strong network effects in that network, which can drive further growth. An already established frontrunner of competing network goods can dominate the market. This is known as path dependence¹⁴ or a “lock in” of the market in an established standard.¹⁵ Information technologies have been claimed to be subject to a “10X” rule: A competing product has to be ten times better to assert itself against an established standard.¹⁶

1.3 Law as a standard

The law serves to form, coordinate, stabilize, and enforce behavioral expectations. To achieve this, all parties involved must share the same set of legal rules. In this basic sense, the law resembles other modes of exchange, as is aptly captured by the characterization of the law as the “language of interaction.”¹⁷ Therefore, it is no bold claim that legal terms show network effects just like other means of communication.¹⁸ In the following, the economics of network effects are adopted for laws (Section 1.3.1). The resulting framework is then applied to contract law (Section 1.3.2) and company law (Section 1.3.3) to better understand how laws can

¹⁴ For a representative overview about form of path dependence see P. A. David, ‘Path dependence: a foundational concept for historical social science’, in: P. Zumbansen and G.-P. Calliess (eds.), *Law, Economics and Evolutionary Theory* (Cheltenham: Edward Elgar, 2011), p. 88. A classic example is the keyboard layout “QWERTY,” which is said to have originally been introduced to reduce writing speed at mechanical typewriters, P. A. David, ‘Clio and the Economics of QWERTY’ (1985) *American Economic Review* 75, 332.

¹⁵ Path dependence need not be inefficient, cf. Farrell and Saloner, ‘Installed Base and Compatibility (“excess inertia” und “excess momentum”).’

¹⁶ Shapiro and Varian, *Information Rules*, p. 196 (ascribing the rule to Andrew Grove, CEO of Intel till 1998).

¹⁷ See note 4 above.

¹⁸ To the point Druzin, ‘Buying Commercial Law’, 18 et seq.; B. J. Broughman and D. M. Ibrahim, ‘Delaware’s Familiarity’ (2015) *San Diego Law Review* 52, 273, 277–279. Similarly A. Ogus, ‘The economic basis of legal culture: Networks and monopolisation’ (2002) *Oxford Journal of Legal Studies* 22, 419, 423.

be standardized in the marketplace, without the intentional design of a policymaker and governments.

1.3.1 Network effects of laws

1.3.1.1 Direct network effects: specific investment in laws

Direct network effects arise if parties benefit from using the same or a compatible good as facilitator of exchange. At first blush, one could find this benefit in the plain necessity that any right of an obligee has to match the corresponding duty of the obligor. As a consequence, the parties to a particular transaction have to agree on an identical set of legal rules. Yet merely selecting a single set of rules—such as a contract or company law—to govern an exchange does not affect other transactions or market participants. A “network” beyond the individual transaction only arises if actors commit to a law for more than a single transaction. There is an immediate analogy with a telephone network: The direct network effects from other members depend not on currently held telephone conversations but on the number of connections. Just like telephone users join the network by acquiring a telephone and connecting it, a law starts becoming a network good when market actors make specific investments in using it for transactions. These are primarily learning investments but also the costs of adapting a firm and its business processes to particular legal requirements. Such investments reduce the cost of transacting under the law; they are “specific” in the sense that they cannot be used with another law. And once made, they also cannot be recovered. Law-specific investments create a commitment to the respective law insofar as the actor would forego a transaction cost saving if she agreed to have a different law apply to the exchange.

Direct network effects result from the impact of one actor’s commitment on other market participants: If *A* has specialized in law *X*, her contract partner *B*, all else equal, will also want to choose law *X* because *A*’s lower transaction costs translate into a larger surplus that can be shared between the parties. Anticipating an exchange with *A*, it is also more attractive for *B* to specialize in law *X* herself rather than in an alternative law *Y*. Hence, *A*’s adoption increases the appeal of law *X* to *B* as well as to anybody else who expects to be dealing with *A* at some point in time. This is a direct network effect.

Hence, someone becomes a “user” of a given law only if she has specialized in applying the law on a repeated basis. A party who blindly agrees to applying a law in a transaction counts not as a user in this regard. Insofar as she is indifferent, she incurs no higher transaction costs from letting different laws apply to her dealings. As a consequence, she constrains neither specific investments by others nor their choice of law. Direct network effects tend to be mutual: *A* prefers to specialize in law *X* because (and if) her potential contract partner *B* also specializes in *X*, and vice versa for *B*.¹⁹

To provide a sense of the nature and weight of a user’s commitment, two types of specialization investments in laws can be distinguished.

Investment in legal information. To comply with behavioral expectations, one has to become acquainted with the legal rules governing the transaction. Much like learning a language, one has to learn a law. Depending on its complexity, the required learning effort may be substantial. As an indication, lawyers sometimes spend years of training to obtain command of the laws of a single jurisdiction. Of course, the parties need not (and probably should not) strive to become legal experts. They can delegate the legal aspects of a transaction to legal advisers. In this regard, lawyers may be regarded as the main users of laws as network goods, which they utilize to design and guide the transactions of their employers or clients. For the moment, it is safe to ignore the distinction between lawyers and clients and to blur them into a single hypothetical user.²⁰

Often, the parties or their lawyer need not devote extra time and resources to acquiring legal expertise. Experience with a law comes naturally with the recurring use of it, for example through arguments over contract implementation. Yet learning by doing is also not for free. It involves an opportunity cost because any given transaction creates experience with only one particular law. The opportunity cost of

¹⁹ Using the same set of standard terms—including a uniform choice-of-law clause—in all of a firm’s dealing can entail major cost savings from legal “standardization.” Yet such standardization takes place only within a firm’s organization, not between traders and, therefore, does not reflect network effects.

²⁰ See, e.g., Sanga, ‘Choice of Law’, 923 (arguing that lawyers are the actual “users” of laws as regards their network effects).

recurrent use makes itself felt when one is asked to give up the advantage of the familiar law by submitting to an unknown law.

Investment in compliance. Specializing in compliance with a given law can be another investment besides acquiring knowledge. It often is of a more tangible character than the effort of familiarizing oneself with the respective law. An example from contract law is the drafting of a party's general terms and conditions. Contract forms have to be adjusted to the law applicable if one wishes to avoid unpleasant surprises such as the invalidity of important provisions. In addition, the routines for executing transactions and for monitoring performance have to conform to the applicable law. As a reflection of these specific investments, operating costs grow if one's contractual relationships are governed by different laws. For instance, if a manufacturer purchases supplies under different sales laws, its business processes have to heed the relevant notice requirements for defects of the goods. Disputes fought under different contract laws cause higher management expenses, among others for retaining specialized legal counsel.

Compliance with company law requires even greater and more irreversible commitment: An essential tenet of company law is that an organization can be subject to only a single set of company law rules attaching to its "legal form." If a firm chooses to incorporate as, say, a Singaporean private company limited by shares it cannot at the same time apply the company law of a Spanish sociedad de responsabilidad limitada. The choice of one particular legal form constitutes a singularly specific investment into compliance with a particular company law. The investment consists not so much of the fees and expenses for incorporation, registration or drawing up the necessary documents but rather of the foregone opportunity of organizing in a different company form.

1.3.1.2 Indirect network effects

Indirect network effects arise when the frequent use of a network entails more and better complements. The immediate users of a network are joined by the suppliers of complementary goods and services as a new class of network members. The latter improve and extend the usefulness and applicability of the network. They are tied to

the actual users because investments for them become more lucrative the larger the network; they both enjoy and produce network effects.²¹

With regard to laws, legal services come to mind.²² The more common a law is, the more qualified advisers and litigators are available as it becomes worthwhile to build up and preserve specialized knowledge, including through developing boilerplate provisions, forms, and databases. Frequent use of a law produces further advantages: The more often a legal rule is applied, the more often litigation occurs. This increases the quality of adjudication. If the interpretation of a body of law typically rests on special courts, their reputation grows with the practical importance of the law. This makes it easier to find able and specialized judges.²³

Laws themselves also gain from frequent use.²⁴ Courts have more opportunities to clarify ambiguities and promote future legal certainty.²⁵ Greater use of a national law in a given field can entice the competent legislator to revise and improve it.²⁶ The law also receives more attention from practitioners and scholars, who devote their research to widely used laws rather than obscure ones. In addition, business circles

²¹ Something between a direct and an indirect network effects occurs if a right or claim created under a particular law is traded on a secondary market, see M. Klausner, 'Corporations, Corporate Law, and Networks of Contracts' (1995) *Virginia Law Review* 81, 757, 785–786 ("marketing network externalities"); R. B. Ahdieh, 'Between Mandate and Market: Contract Transition in the Shadow of the International Order' (2004) *Emory Law Journal* 53, 691, 714–716 (for bonds). The subsequent acquirer can be regarded as an immediate user of the law (direct network effects) or as provider of a complementary service (indirect network effects).

²² Klausner, 'Corporations', 782–784; M. Kahan and M. Klausner, 'Standardization and innovation in corporate contracting (or "the economics of boilerplate")' (1997) *Virginia Law Review* 83, 713, 719 et seqq. (albeit distinguishing "learning externalities" from "network externalities").

²³ An often cited example is the Court of Chancery of the State of Delaware with regard to company law, M. Kahan and E. Kamar, 'The Myth of State Competition in Corporate Law' (2002) *Stanford Law Review* 679, 708 et seqq.

²⁴ See C. J. Goetz and R. E. Scott, 'The Limits of Expanded Choice: An Analysis of the Interactions Between Express and Implied Contract Terms' 1985) *California Law Review* 73, 261, 286–288; S. Grundmann and W. Kerber, 'European System of Contract Laws – A Map for Combining the Advantages of Centralised and Decentralised Rule-Making', in: S. Grundmann and J. Stuyck (eds.), *An Academic Greenpaper on European Contract Law* (The Hague: Kluwer, 2002), pp. 295, 300 ("dynamic economies of scale").

²⁵ Klausner, 'Corporations', 775–779. The amount of precedents is often cited as decisive advantage of Delaware's company law, R. Romano, 'Law as a Product: Some Pieces of the Incorporation Puzzle' (1985) *Journal of Law, Economics, and Organization* 1, 225, 277–278.

²⁶ See H. Hansmann, 'Corporation and Contract' (2006) *American Law and Economics Review* 8, 1, 9–10; J. Dammann, 'Homogeneity Effects in Corporate Law' (2014) *Arizona State Law Journal* 46, 1103, 1113–1116 (emphasizing the importance of company law changes for adapting the constitution of companies to changing circumstances).

and lawyers develop a shared sense of what the law demands.²⁷ An example is fiduciary requirements of company directors in a critical situation, such as in a corporate acquisition or financial distress. This is particularly important for transactions that are rarely adjudicated in courts. In lieu of case law, the consent of the parties has to fulfil the precedents' function to coordinate behavioral expectations. Overall, indirect network effects create a stock of "legal capital" associated with a particular law,²⁸ and accumulating with the number of transactions and resolved disputes. In parallel to the specific investments by individual users, one can consider this a collective investment of all network members in the law.

1.3.2 Market standardization in contract law

In developing a theory of law standardization without the guidance of a central planner or coordinator, this section begins with the law governing contracts. Freedom of contract enables the parties to tailor the contract to their needs. The applicable law guides the formation of the contract, its interpretation and implied terms; it also defines the limits of party choice by imposing mandatory rules or a judicial review of contract terms. Parties use contract laws to connect in much the same way as they use languages or phone lines. Direct and indirect network effects are bound to matter provided that more than one party to the contract cares for the applicable law. This excludes most business-to-consumer contracts from the following analysis as consumers tend to pay little regard to choice of governing law.

1.3.2.1 Theory—of local communities and bridge standards

To fix ideas, it helps to start with a simple framework about parties' choice of law. Suppose that the following variables determine how useful a given contract law is for the parties.

²⁷ Klausner, 'Corporations', 780–782, 786–789 (also pointing to the possibility of discovering unexpected consequences of a legal rule); Goetz and Scott, 'Limits of Expanded Choice', 286 et seq.

²⁸ See W. A. Landes and R. A. Posner, 'Legal Precedent: A Theoretical and Empirical Analysis' (1976) *Journal of Law and Economics* 19, 249, 262–264 (coining the term "legal capital" to describe the growth in the body of precedents).

The law's quality Q . The available contract laws can differ in their substantive quality. A contract law can increase expected surplus from the transaction by creating proper, value-enhancing incentives. More surplus is always desirable for all parties to the transaction as it can be freely divided through the price term. Indirect network effects also bear on Q as frequent usage tends to enhance the legal certainty and sophistication of a contract law.

The law's proximity P to a party. Laws can be more or less accessible to a trader based on long-term characteristics such as geography, language, or culture. It is also often argued that laws respond to varying local needs and preferences,²⁹ though this seems less compelling for contract laws.³⁰ In addition, P captures certain indirect network effects insofar as they differ among users: the (geographical) availability of legal advice and legal resources or the familiarity of local courts. Typically, the law of one's own jurisdiction is most proximate but there are significant differences among foreign laws: For a Hong Kong seller, English law is more proximate—albeit not geographically—than Brazilian law.

The party's specialization S . Any contract party will prefer to deal under a contract law to which her business processes are attuned. Although familiarity or “specialization” to a law comes with repeated use, it is also a matter of individual choice. We think of specialization as a investment with positive but diminishing returns: The more a trader invests in a contract law, the greater her benefit S in each transaction governed by the law. Yet the returns from investment fall: The main features and most severe pitfalls of a particular law are learned quickly. Adding more knowledge and experience improves matters by less.³¹ These assumptions ensure that

²⁹ R. Van den Bergh, ‘Subsidiary as an Economic Demarcation Principle and the Emergence of European Private Law’ (1998) *Maastricht Journal of European and Comparative Law* 5, 129, 132–135; F. Gomez, ‘The Harmonization of Contract Law Through European Rules: A Law and Economics Perspective’ (2008) *European Review of Contract Law* 4, 89, 101–103; Grundmann and Kerber, ‘European System of Contract Laws’, pp. 300–301.

³⁰ Cf. A. Ogus, ‘Competition between National Legal Systems: A Contribution of Economic Analysis to Comparative Law’ (1999) *International and Comparative Law Quarterly* 48, 405, 410–412; Ogus, ‘Economic basis of legal culture’, 420–421 (differentiating between laws promoting “mutually desired outcomes,” where preferences are likely to be homogenous, and “interventionist” laws with heterogenous preferences).

³¹ A little more technically: S is the per-transaction benefit from using the law. It is a continuous, monotonically increasing, concave function of the amount invested by the party in the respective contract law.

individual investment and specialization S in law X increases with the expected number of transactions governed by law X . But if the trader anticipates a few transactions to be governed by law Y , she also specializes somewhat in this law.

When the parties conclude a contract, they seek to maximize their joint gain. One can expect them to pick the contract law resulting in the greatest sum of Q , P , and S —with the proviso that P and S will differ for the parties; fully written out, they maximize $Q + P_1 + P_2 + S_1 + S_2$, where the subscripts denote the party. This can require both sides to compromise by choosing a law that neither of them favors most. For instance, a seller from China and a buyer from Brasil may well pick English law.

Traders specialize anticipating choice of law in future transactions. This leads to a first theoretical prediction. Suppose a grossly simplified world in which laws differ neither in substantive quality Q nor in proximity P to the various market participants. Contract parties are homogenous and paired at random, with equal probability. Also, everyone knows the specializations of all others. In this artificial world, independently of the initial state of affairs, the market likely converges towards a single contract law as the sole standard. Each trader knows the contract law that happens to command the largest aggregate specialization and, therefore, is expected to be chosen most frequently. Each trader then tilts her own investment towards the frontrunner. As a consequence, the prevalent law becomes the one to attract all specialization investment and the only one to be chosen in contracts.³²

Comprehensive standardization on a single contract laws is an unrealistic prediction, but it provides an instructive benchmark. If full standardization fails despite obvious benefits from specialization, at least one of the assumptions must be amiss. Allowing differences in substantive quality Q might change the winner of the contest but not the general outcome. We therefore continue to ignore Q . It is more interesting to

³² This is only an intuitive argument. A rigorous analysis would require more specific assumptions about the timing and depreciation of specialization investments, the discount rate, initial specializations, and the functional form of S . One can imagine a set of assumptions under which more than one contract law survives. For instance, when a minority of traders is strongly specialized in a law that is not prevalent among the majority, an equilibrium could emerge where the minority's preferred law governs all contracts with minority traders, which forces the majority to retain some specialization in that law as well. Nonetheless, it seems safe to predict that in most settings a single standard will emerge when traders are homogenous (apart from initial specialization).

tinker with the composition and pairing of traders. Suppose that contract parties belong to two distinct groups or “countries.” To start from an opposite extreme, let parties deal exclusively with other parties from the same group or country; there is no cross-border trade. Applying the same logic as before, one expects a single standard within each country but not—or only accidentally—across countries. Diverging standards are especially likely if group boundaries reflect underlying differences among traders, which lead to variance in proximity P of laws to traders. Recall that P reflects stable characteristics—such as language—and benefits that derive from long-run usage patterns, including persistent indirect network effects, such as availability of legal advice.

Trader communities in the real world are not fully separated. While more exchange takes place within countries, there is significant international trade. Assuming that the parties specialize primarily in their home laws, the interesting question becomes which law is chosen in cross-border transactions. There are two main options. Perhaps the more natural one is to choose the home law of either of the parties. It has the obvious advantage of exploiting the highest possible S and P of one party, a benefit that increases surplus and can be shared between the parties. The second option is for both parties to go out of their ways by choosing a third law. While each party foregoes her most preferred law, the sum of the two parties’ S and P with respect to the third law can still be larger. For one thing, the distance to the other party’s home law in terms of P could be large but each party can be closer to a third law—as in the example of a sale between China and Brasil with English law as the more proximate alternative because of the English language and the global presence of UK-based law firms. For another thing, traders’ specializations in foreign laws will not be random. If their transactions relate to various countries, a second round of standardization specifically for cross-border trade is apt to arise. Rather than spreading their specialization effort over various foreign laws, focusing on one particular law—or a few laws—as the “bridge standard” for cross-border transactions allows traders collectively to enjoy higher levels of S . The comparison with languages is suggestive: International exchange usually resorts to a common bridge

language or “lingua franca.”³³ Today this is for most purposes English.³⁴ A bridge standard emerges in much the same way as a local standard: Gauging existing specializations S and other factors, notably the proximities P of the candidate laws (or languages), market participants shift their specialization investments towards the laws (or languages) that they anticipate to be used in most transactions.

As observed, the choice of either one of the home laws or a third law depends on the parties’ proximities P to the laws in question. With respect to the second relevant factor, the parties’ specialization S , we can make another specific prediction: A party should be more willing to cede her own law if cross-border contracts constitute a larger share of her total business volume. Although a trader will be more accustomed to her own law, she optimally specializes less in it, compared to others, when her domestic trade volume is lower.³⁵ Because such a trader has a relatively low S in his home law, choosing it for the contract adds less surplus and as a result occurs less frequently, which results in even lower specialization. Conversely, forcing a firm with mostly domestic dealings into a foreign law is more costly for the parties and therefore less likely. Because firms from smaller countries—with smaller domestic markets—tend to do more business internationally, this suggests that the contract laws of larger economies should be more prevalent in the cross-border transactions of their firms.³⁶

³³ “Lingua franca” refers to the use of a certain language for the communication between members of different language communities, C. Meierkord, ‘Linguas Francas as Second Languages’, in: K. Brown (ed.), *Encyclopedia of Language and Linguistics* (Amsterdam: Elsevier, 2nd ed., 2006). Originally, “lingua franca” signified a hybrid language based on Italian and Spanish that was spoken in the Mediterranean from the 15th to 19th century, J. Arends, ‘Lingua Franca’, in: P. Strazny (ed.), *Encyclopedia of Linguistics*, vol. 1 (New York: Fitzroy Dearborn, 2005), p. 625.

³⁴ See D. Crystal, *English as a global language* (Cambridge: Cambridge University Press, 2nd ed., 2003), pp. 59–71.

³⁵ In fact, the prevalence of the trader’s home law in international transactions also matters. If the trader’s home law happens to be the international bridge standard, her optimal S likely would be higher even if she conducted most of her business cross-border.

³⁶ Without much explanation, this is often attributed to greater “bargaining power” of firms from larger economies. See L. Spagnolo, ‘Green Eggs and Ham: The CISG, Path Dependence, and the Behavioural Economics of Lawyers’ Choices of Law in International Sales Contracts’ (2010) *Journal of Private International Law* 6, 417, 426–427.

1.3.2.2 Evidence

Providing conclusive evidence of network effects poses a formidable challenge.³⁷

With network effects, one expects that many users attract more users. Yet if a particular good offers advantages other than network effects, demand should increase as well.³⁸ If contract law X expands its market share, this could reflect a rise of traders' specialization S in law X or simply its superior quality Q .

Various studies show that parties routinely include choice-of-law clauses in their (international) contracts.³⁹ As regards the laws chosen, a first strand of evidence relates to contract laws within the U.S. The largest study to date considers half a million contracts from 1996 to 2012 filed by public corporations with the Securities and Exchange Commission. It finds a large market share of New York law (27.3%), followed by Delaware (12.4%) and California (10.5%). More important is that choice of law reflects more than just geographic proximity but tends to concentrate in two jurisdictions.⁴⁰ Delaware's and less so New York's contract laws are used significantly more often than one would expect based on the location of firm headquarters.⁴¹ Market concentration appears to be increasing over time.⁴² Given that the U.S. are a more integrated economic area than East Asia or the EU, the process could reflect market standardization—a narrowing of traders' specialization S in

³⁷ Birke, 'Economics of Networks', 783–788; Farrell and Klemperer, 'Coordination and Lock-in', pp. 2015–2016.

³⁸ The problem consists of distinguishing the causal effect of aggregate behavior (network effects) from that of other environmental variables or common group characteristics that also impact individual, and hence aggregate, behavior, see W. R. Hartmann, P. Manchanda, H. Nair, M. Bothner, P. Dodds, D. Godes, K. Hosanagar, and C. Tucker, 'Modeling Social Interactions: Identification, Empirical Methods and Policy Implications' (2008) *Marketing Letters* 19, 287, 293–295.

³⁹ See only Sanga, 'Choice of Law', 903 (estimating percentage of contracts with choice-of-law clauses in a large sample of U.S. contracts at 89%); G. Cuniberti, 'The International Market for Contracts: The Most Attractive Contract Laws' (2014) 34 *Northwestern Journal of International Law & Business* 455, 468–469 (reporting explicit choice-of-law provisions in over 80% of a sample of contracts in ICC arbitration cases).

⁴⁰ For the natural tendency to choose local law, see T. Eisenberg and G. P. Miller, 'The Flight to New York: An Empirical Study of Choice of Law and Choice of Forum Clauses in Publicly-Held Companies' Contracts' (2008) 30 *Cardozo Law Review* 1475, 1492–1500.

⁴¹ Sanga, 'Choice of Law', 906, 908 (Delaware exceeds this measure 46-fold, New York threefold).

⁴² Sanga, 'Choice of Law', 908–917 (extrapolating the present trend toward predicted obsolescence of other states' contract laws by 2050).

conjunction with a relatively minor advantage of the parties' home laws in terms of proximity P . However, the evidence is also consistent with Delaware and New York offering intrinsically better contract laws (higher Q).⁴³

At the international stage, data from contracts in arbitration proceedings in Asia and Europe provide evidence for the emergence of bridge standards. English law and—in Europe—Swiss law are preferred choices when parties from different jurisdictions agree on a third law; U.S. contract laws have surprisingly little appeal.⁴⁴ Practitioner surveys likewise point to the prevalence of English law in cross-border transactions.⁴⁵ Again, this need not be evidence of standardization but could reflect a higher Q of English law (with P accounting for the prevalence of the parties' home laws in domestic transactions). Survey responses suggest that both factors are in play.⁴⁶ An empirical analysis of choice of law in European debt securities shows that English law has long been prevalent for debt securities with an international scope

⁴³ For the perceived superior quality of Delaware and New York laws, see only Eisenberg and Miller, 'Flight to New York', 1500.

⁴⁴ Cuniberti, 'International Market for Contracts', 467–475 (calculating percentages of parties choosing a third-country law from aggregate data of the International Chamber of Commerce on over 4,400 cases for 2007–2012, with an average percentage for English law of 11.2%, for Swiss law of 9.9%, for U.S. laws of 3.6%, and for French law of 3.1%); G. Cuniberti, 'The Laws of Asian International Business Transactions' (2016) 25 *Washington International Law Journal* 35, 66–67 (using a similar measure to show the dominance of English contract law in four Asian arbitration centers outside mainland China 2011–2012). See also S. Voigt, 'Are International Merchants Stupid? Their Choice of Laws Shed Doubt on the Legal Origin Hypothesis' (2008) 5 *Journal of Empirical Legal Studies* 1.

⁴⁵ See Institute of European and Comparative Law, *Civil Justice Systems in Europe: Implications for Choice of Forum and Choice of Law*, 2008, p. 16, available at <http://denning.law.ox.ac.uk/iecl/ocjsurvey.shtml> (last visited 24 April 2017) and forthcoming in a volume edited by S. Vogenauer and C. Hodges (reporting 59% of respondent in-house counsels of European firms to name English law as most used "by anyone" in cross-border transactions, followed by 13% for Swiss law); White & Case and Queen Mary University of London, *2010 International Arbitration Survey*, 2010, available at <http://www.arbitrationonline.org/research/2010/index.html>, p. 14 (reporting 40% English law, 17% New York law, 8% Swiss law in a worldwide survey among 136 firms).

⁴⁶ See The English Law Society, *Firm's Cross-Border Work* (2010), Chart 10 (reporting that 73% of respondent practitioners named "legal certainty" as a guiding factor in choice of law, followed by 71% for "familiarity with the legal system" and 60% for "location of parties"). Note that "legal certainty" could also reflect rule-of-law concerns with certain jurisdictions. For a summary of further findings see G. Rühl, 'Regulatory Competition in Contract Law: Empirical Evidence and Normative Implications' (2014) *European Review of Contract Law* 9, 61, 70–72 (emphasizing the importance of quality concerns); S. Vogenauer, 'Regulatory Competition Through Choice of Contract Law and Choice of Forum in Europe: Theory and Evidence' (2013) *European Review of Private Law* 21, 13, 36–60 (concluding that "substantive quality of contract law rules is at most a marginal consideration in making choices of law").

(Eurobonds). More importantly, the study demonstrates that the market share of English law increased even for domestic bonds—from less than 10% to well over 50%—when the respective country introduced the Euro. As the European Monetary Union is unrelated to the quality of contract laws, this change likely reflects the increased demand for a bridge standard in the newly created Eurozone market.⁴⁷ Finally, the study also speaks to the prediction that parties from larger economies more often use their home law. English law is significantly more prevalent in countries with small domestic debt markets.⁴⁸

1.3.3 Market standardization in company law

It has long been debated whether companies are mere creatures of contract or whether “organizational law” is distinct from contract law.⁴⁹ Be this as it may, the founders of a company—like the parties of a contract—can often choose which company law governs their entity.⁵⁰ It is therefore worthwhile to ask whether company law could also experience voluntary, market-based standardization. In fact, the notion of network effects in choice of law has first been developed with a view to company law, specifically the market dominance of Delaware in the U.S.⁵¹

⁴⁷ A. Engert and L. Hornuf, ‘Market Standards in Financial Contracting: The Euro’s Effect on Choice of Law in European Debt Securities’ (2018) *Journal of International Money and Finance*, forthcoming, Figure 4.

⁴⁸ Engert and Hornuf, ‘Market Standards’, Figure 1. See also Cuniberti, ‘Laws of Asian International Transactions’, 55–61 (documenting that firms from the U.S. often succeed in imposing the contract law of a U.S. state).

⁴⁹ A standard reference for the nexus-of-contracts view is M. C. Jensen and W. H. Meckling, ‘Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure’ (1976) *Journal of Financial Economics* 3, 305, 310–311. For one—among very many—views of company law as “more than contract” see H. Hansmann and R. Kraakman, ‘The Essential Role of Organizational Law’ (2000) *Yale Law Journal* 110, 387.

⁵⁰ How much freedom shareholders enjoy depends on conflict-of-laws rules. For the shift towards more choice of law in the EU since 1999 see only J. C. Dammann, ‘Freedom of Choice in European Corporate Law’ (2004) *Yale Journal of International Law* 29, 477; T. Tröger, ‘Choice of Jurisdiction in European Corporate Law – Perspectives of European Corporate Governance’ (2005) *European Business Organization Law Review* 6, 3.

⁵¹ Klausner, ‘Networks’. On the U.S. market for corporate charters, see n. 53.

1.3.3.1 Theory—of uniform choices and different clienteles

The same factors that guide standardization in contract law should also affect choice of company law. In selecting an incorporation state, shareholders likely consider differences in the substantive quality Q of company laws, the proximity P to the jurisdiction, and pre-existing legal knowledge and other specialization S in the candidate laws.⁵² Yet choice of a company law differs in two cardinal ways from stipulating a contract law.

The first point of departure is that for any legal entity only a single company law can be chosen. While the applicable contract law can be varied across contracts, the entity must select one and the same company law for all its relations. The governing company law cannot be negotiated with individual counterparties; shareholders unilaterally select an incorporation state. In making this decision, shareholders have incentives to take the interests of outside parties into account as the firm's profitability depends on the latter's willingness to deal with the company. When outsiders find the company law unfavorable (low Q), alien (low P), or unfamiliar (low S), the firm foregoes valuable opportunities or has to make costly concessions to attract business partners. Their profit interest thus drives shareholders to balance the various demands and to maximize total surplus in terms of Q , P , and S .⁵³ But even when all parties count in the decision, the choice of company law amounts to a highly rigid specialization investment: At any given point in time, the entity can specialize in no more than one law. The investment also involves a strong commitment: The techniques for reincorporating in another jurisdiction vary depending on the company laws involved. Sometimes, both laws permit a genuine transition of the entity from the original jurisdiction to the destination.⁵⁴ Otherwise,

⁵² Cf. Broughman and Ibrahim, 'Delaware's Familiarity', 278–290 (distinguishing “network effects” from “familiarity”).

⁵³ This internalization account—with a focus on Q —is a key argument by proponents of regulatory competition in company law, see only R. K. Winter, 'State Law, Shareholder Protection, and the Theory of the Corporation' (1977) *Journal of Legal Studies* 6, 251, 256–258 (arguing that firms' incorporation decisions reflect investor preferences). For overviews of the debate, see R. Romano, 'The Market for Corporate Law Redux', in F. Parisi (ed.), *Oxford Handbook of Law and Economics* (Oxford: Oxford University Press, forthcoming); R. Romano, *The Genius of American Corporate Law* (Washington: American Enterprise Institute Press, 1993).

⁵⁴ Since 2008, the EU requires its member states to enable cross-border mergers, thereby effectively permitting such a transition. For a comparison with the reincorporation-friendly law

the shareholders must establish a new entity in the target jurisdiction, transfer all assets to the new entity, and liquidate the old company. Both techniques can carry significant legal fees, involve other complexities,⁵⁵ and often trigger a profit realization with a hefty tax burden. Overall, switching costs tend to be substantial.⁵⁶ Combined with the long life span of many firms, one expects path dependence to be much stronger in company law than in contract law.

The second distinctive feature of company law is a direct implication of the first. Because it must commit to a single law, the entity has to contemplate a diverse range of parties with greatly different demands. For market standardization, the type and extent of specialization investments are particularly important. In this regard, one can distinguish three broad categories:

Insiders. Company law directly affects the company's directors, officers, and major shareholders. These active players within the firm need to know the nuts and bolts of the corporate constitution and, therefore, make the largest specialization investment. If a person—for instance, an executive—is active in only one company, she needs to specialize in only one law. By contrast, active investors with several holdings will be eager to limit the number of different company laws in their portfolio.

Outside stakeholders. Many different parties hold a “stake” in the company that depends on the firm's viability and success. Company law arguably influences how well the firm is managed and whether insiders can exploit outsiders. Creditors, outside investors, employees, and other long-term stakeholders have to evaluate the

of U.S. states, see F. M. Mucciarelli, ‘The Function of Corporate Law and the Effects of Reincorporations in the U.S. and the EU’ (2012) *Tulane Journal of International and Comparative Law* 20, 421. The number of cross-border mergers in the EU since then has not exceeded 400 in any given year, see T. Biermeyer and M. Meyer, *Cross-border Corporate Mobility in the EU, Empirical Findings 2017*, available at <https://ssrn.com/abstract=3116042> (last visited 1 April 2018).

⁵⁵ When the new company law is less favorable for certain parties, reincorporation engenders disputes over their interests and vested rights, see G. Kurtulan, ‘Minority Shareholder Protection in Cross-Border Mergers: A Must for or an Impediment to the European Single Market?’ (2017) *European Business Organization Law Review* 18, 101.

⁵⁶ Consider as an indication that a mere 1,281 cross-border mergers have been recorded in the entire EU in 2008–2012, see Beech-Bruun and Lexidale, *Study on the Cross-Border Mergers Directive* (2013), available at http://ec.europa.eu/internal_market/company/docs/mergers/131007_study-cross-border-merger-directive_en.pdf (last visited 19 May 2017), p. 968.

effect of the applicable company law on their position, for instance through bankruptcy risk. Such a general estimate of expected outcomes requires no detailed knowledge of the law. The specialization investment will be lower than that of corporate insiders, although it will depend on the amount at stake. Also, company laws vary in the degree of attention given to certain stakeholders, such as creditors;⁵⁷ if a given company law has little to offer for a particular group, that group's specialization matters less too.

Contract partners. Anyone dealing with the company should be able to identify the company's name and legal form as well as to verify its existence and the powers of its organs.⁵⁸ In these respects, company law complements contract law. While the relevant rules involve legal detail, the specialization investment in company law by a contract partner remains limited. Obviously, this category overlaps with the previous—one usually becomes a stakeholder by contracting with the company.

The broad-brush classification helps to clarify how specializations of various parties affect the firm's choice of company law. Corporate insiders need a high degree of specialization but their positions are often concentrated so that they achieve a high specialization in whatever law the firm picks. This suggests that the decision often turns on the perspective of the less involved, yet more numerous future stakeholders and contract partners. Because the firm can pick only one law, it is likely to choose the highest specialization in the largest and most relevant group of outsiders. As for most firms their home market is more important than any single foreign market, one is led to the (unsurprising) prediction that firms adopt their domestic company law.

⁵⁷ Many continental European jurisdictions conceive of company law as also serving the interests of creditors and perhaps employees. By contrast, common law jurisdictions tend to view the company more as an affair of only the shareholders, see only W. J. Carney, 'The Political Economy of Competition for Corporate Charters' (1997) *The Journal of Legal Studies* 26, 303, 319–327 (providing a quantitative comparison of EU law provisions being adopted by U.S. states).

⁵⁸ This has been the overriding concern behind the first legislative measure of the EU in company law: The First Company Law Directive 68/151/EEC, OJ L65, 14 March 1968, p. 8, aimed at harmonizing the validity of incorporations, the power of representation, and disclosure requirements for companies. The current version is Directive 2009/101/EC, OJ L 258, 1 October 2009, p. 11.

A similar home bias was hypothesized for contract law—but what of a bridge standard for cross-border transactions? At first blush, the restriction to choose only one law seems to preempt this approach. One can, however, imagine a company law to gain so much currency internationally that the benefit of an *intermediate specialization in many markets* eventually trumps the advantage of *high specialization* (and proximity) only in the firm’s *home market*. Such a law could become a bridge standard for firms with high levels of cross-border activity. Large firms should be the first to reach this threshold. Yet new ventures rarely anticipate growing past this tipping point and, accordingly, choose to incorporate in their home jurisdictions. Once a firm obtains sufficient international exposure to benefit potentially from using a bridge standard, it faces the considerable cost burden of midstream reincorporation. This suggests that national company laws continue to breed and retain new businesses. Establishing any single law as a bridge standard in international business is exceedingly difficult under these conditions. The large installed base of local laws combined with significant switching costs—including the inability to use more than one law simultaneously so as to gradually creep into a second law—favor uniformity within jurisdictions and discourage local stakeholders and contract partners to specialize in a second company law. The rigidity of company-law choice weakens the prospect of a bridge standard even for large, more international firms.

Perhaps multinational firms would nonetheless have adopted an international bridge standard if they had had no alternative to using their home law in penetrating foreign markets.⁵⁹ Firms can, however, present themselves in a legal form that foreign stakeholders and contract partners find more familiar and trustworthy—by establishing a subsidiary in the target jurisdiction. The economics of network effects thus might contribute to explaining the prevalence of international groups of companies. Dividing a single firm into multiple entities confers the advantage of speaking the local language of company law. The cost lies in intra-firm frictions caused by separate legal entities, governed by different company laws.⁶⁰ Also, while

⁵⁹ Consider whether a Chinese business customer would be comfortable dealing with a French S.A.S. (*société par actions simplifiée*).

⁶⁰ See F. Chiappetta and U. Tombari, ‘Perspectives on Group Corporate Governance and European Company Law’ (2012) *European Company and Financial Law Review* 9, 261, 265–271

the multinational group shows the familiar face of a local company, the subsidiary often has little economic substance. The local company law facilitates contracting but provides little assurance to stakeholders.

1.3.3.2 Evidence

There is strong evidence of home bias in company law. This very predictable pattern was first established statistically in the U.S. debate over charter competition, calling into question the law's substantive quality as the sole driver of company law choice.⁶¹ At the same time, the U.S. provide an impressive example of market concentration in a single company law, namely—again—the law of Delaware: Of the firms that escape the gravity of their home state, a whopping majority opts for Delaware.⁶² Traditional defenders of charter competition attribute this success to substantive company law and the superior abilities of Delaware courts,⁶³ each of which enter our framework as quality Q . A very recent study seeks to dissect the Q and S effects by showing that a major change in the substance of Delaware law only gradually lifted the market share of Delaware to a new level, interpreting this drift as evidence of network effects.⁶⁴ Also, the distribution of Delaware firms also aligns with the conjecture that large firms pick a bridge standard with greater specialization S by corporate outsiders: In two studies of private firms, only around 2% of firms

(describing a multinational group's centralized management and the frictions caused by national company laws); Informal Company Law Expert Group, *Report on the recognition of the interest of the group* (2016), available at <https://ssrn.com/abstract=2888863> (last visited 29 May 2017), pp. 29–39 (laying out difficulties of cross-border groups that a limited harmonization by the EU could address).

⁶¹ R. Daines, 'The Incorporation Choices of IPO Firms' (2002) *New York University Law Review* 77, 1559, 1571–1574, 1576–1582 (reporting that 56% of firms going public 1978–2000 chose Delaware law and virtually all others their home law, and discussing reasons for the home bias); L. A. Bebchuk and A. Cohen. 'Firms' Decisions Where to Incorporate' (2003) *Journal of Law and Economics* 46, 383, 388–402 (likewise for the stock of U.S. listed firms in 1999); J. Dammann and M. Schündeln, 'The Incorporation Choices of Privately Held Corporations' (2011) *Journal of Law, Economics, and Organization* 27, 79, 84–85 (finding around 93% of privately held corporations with more than 19 employees in a large sample of 2008 to be incorporated in their home state); J. Dammann and M. Schündeln, 'Where Are Limited Liability Companies Formed? An Empirical Analysis' (2012) *Journal of Law and Economics* 55, 741, 745–746 (likewise for LLCs).

⁶² See n. 61. For the development over time, see S. Sanga, *Network Effects in Corporate Governance* (2018), available at <https://ssrn.com/abstract=3086245> (last visited 1 April 2018).

⁶³ See n. 53 above and for the importance of the judiciary M. Kahan and E. Kamar, 'The myth of state competition in corporate law' (2002) *Stanford Law Review* 679, 708–709.

⁶⁴ Sanga, 'Network effects'.

with 20–100 employees chose Delaware as compared to 50% or 59% with 5,000 or more employees.⁶⁵ An alternative explanation is that Delaware’s *Q* advantage grows disproportionately with firm size, for instance because larger firms are more prone to legal disputes. However, a study of venture-capital funded start-ups shows that the likelihood of incorporation in Delaware increases significantly when more financiers are located outside the firm’s home state.⁶⁶ These venture capitalists benefit from using a company law that they and their legal advisors are more familiar with. The specialization effect receives further support from a survey of lawyers representing issuers and underwriters in initial public offerings; the latter admitted to recommend only the corporate law of either Delaware or their home state because they felt unfamiliar with other company laws.⁶⁷ Lastly, Delaware is chosen more frequently if legal advisers maintain a nation-wide practice.⁶⁸

Evidence from outside the U.S. is more scattered. After the European Court of Justice substantially widened choice of company law in the EU in 1999,⁶⁹ empirical work focused on substantive differences as driver of company law choice.⁷⁰ Overall, the home bias of European firms continues to rule supreme. Public firms rarely incorporate outside their home jurisdiction. For private companies, the percentage of out-of-state incorporations remains in the low single digits,⁷¹ with the United Kingdom capturing slightly over half of them.⁷² In spite of many decades of

⁶⁵ Damann and Schündeln, ‘Privately-Held Corporations’, 84; Damann and Schündeln, ‘Limited Liability Companies’, 746.

⁶⁶ B. Broughman, J. M. Fried, and D. Ibrahim, ‘Delaware Law as Lingua Franca: Theory and Evidence’ (2014) *Journal of Law and Economics* 57, 865 (also finding a strong size effect); see also Broughman and Ibrahim, ‘Delaware’s Familiarity’, 290–300.

⁶⁷ W. J. Carney, G. B. Shepherd, and J. S. Bailey, ‘Lawyers, Ignorance, and the Dominance of Delaware Corporate Law’ (2012) *Harvard Business Law Review* 2, 123, 134, 137, 143 (also reporting lawyers’ belief that investors were most familiar with Delaware law).

⁶⁸ Daines, ‘Incorporation Choices’, 1593–1595.

⁶⁹ See n. 50 above.

⁷⁰ See C. Gerner-Beuerle, F. M. Mucciarelli, E.-P. Schuster, and M. M. Siems, *Study on the Law Applicable to Companies* (Brussels: European Commission, 2016), available at <https://bookshop.europa.eu/en/study-on-the-law-applicable-to-companies-pbDS0216330/> (last visited 29 May 2017), 34–37 (providing an overview of empirical research).

⁷¹ Gerner-Beuerle, Mucciarelli, Schuster, and Siems, ‘Law Applicable to Companies’, 40–43 (estimating the number of private companies located outside the incorporation state in the EU at around 420,000 against a total number of over 14 million private companies).

⁷² Gerner-Beuerle, Mucciarelli, Schuster, and Siems, ‘Law Applicable to Companies’, p. 43.

economic and legal convergence, no bridge standard has emerged in European company law. An offhand evaluation of a sample of listed European firms from the Amadeus database offers a glimpse at the alternative strategy of establishing subsidiaries under local law: On average, each firm had subsidiaries incorporated in nine different jurisdictions.⁷³

1.4 Optimal law standardization

Interest in legal convergence is motivated by policy concerns: Should governments and international organizations strive to harmonize or unify private law fields, particularly in contract or company law? If so, by which means? The economic theory of network effects has its special merit in highlighting the chances and pitfalls of standardization through market forces—an option that policymakers easily overlook but that may well be the most promising avenue in Asia. The following analysis starts from defining the task of crafting an optimal configuration of contract laws and company laws (Section 1.4.1), goes on to characterize the efficiency of market standardization (Section 1.4.2) before assessing the merits of jurisdictional competition and uniform lawmaking as policy options (Section 1.4.3).

1.4.1 The quest for the optimal law configuration

The above taxonomy contains three types of standardization failures, depending on the source of the inefficiency.⁷⁴ A “mis-standardization” occurs if the wrong law is selected as standard. A different law would offer greater proximity P or quality Q for a given set of transactions, yet because of existing specialization S (or government *fiat*), market participants are locked in the inferior law. Furthermore, the inefficiency can consist of too little or too much standardisation. “Under-standardization” arises if market participants use several laws although the

⁷³ The sample was drawn by the author from Bureau van Dijk’s Amadeus database in January 2017 and contains 2,381 listed firms that the database marks as “global ultimate owners.” Sample countries are France, Germany, Italy, the Netherlands, Spain, Switzerland, and the United Kingdom. The mean total number of subsidiaries per firm is 48. See also M. Becht, L. Enriques, and V. Korom, ‘Centros and the Cost of Branching’ (2009) *Journal of Corporate Law Studies* 9, 171 (documenting the costs and impediments to establishing branch offices in EU member states, which can explain firms’ preference for local subsidiaries).

⁷⁴ See text following n. 11 above.

specialization benefits S from using fewer laws would outweigh possible shortfalls in P and Q .⁷⁵ Finally, “over-standardization” obtains when more diversity would produce P and Q advantages that exceed the decline in specialization benefits S . One can capture under- and over-standardization under the common denominator of the proper “configuration” of laws: how many laws should be used, and how should their scope of application be delineated? Configuration raises issues specific to network effects, namely which specialization investments are optimal. By contrast, picking the best law(s) for a given configuration merely requires one to compare laws with respect to substantive quality Q and proximity P .

It takes little reflection to realize how daunting a task it would be for policymakers to craft an optimal law configuration. A social planner would have to estimate the specialization benefits S under different possible configurations, and weigh them against the corresponding differences in P and Q . She would have to know the relative volume of trade within and between countries (or other groupings), the returns to specialization investments as well as the relevant P s and Q s to determine whether a single standard for all traders, separate local standards combined with a single bridge standard for cross-border transactions, or the use of local standards even in cross-border transactions would be optimal. To complicate matters further, trade volumes—a key determinant of optimal law configuration—might not be exogenously given but could reflect the transaction costs from using particular laws. This endogeneity of trade motivates policies towards promoting legal convergence.⁷⁶ Indeed, a burgeoning literature studies the trade constraints associated with political borders,⁷⁷ albeit without firm conclusions whether and how much legal—as opposed

⁷⁵ In overcoming under-standardization, one would of course choose the law with the highest average Q and P .

⁷⁶ See, for instance, O. Lando, ‘Optional or Mandatory Europeanisation of Contract Law’ (2000) *European Review of Private Law* 8, 59, 61–63; see also G. Wagner, ‘The Economics of Harmonization: The Case of Contract Law’ (2002) *Common Market Law Review* 39, 995, 1013–1018 (discussing the effects of different contract laws on cross-border trade).

⁷⁷ See, seminally, J. McCallum, ‘National borders matter: Canada-US regional trade patterns’ (1995) *American Economic Review* 85, 615. For a recent critique, F. Borraz, A. Cavallo, R. Rigobon, and L. Zipitria, ‘Distance and political boundaries: Estimating border effects under inequality constraints’ (2016) *International Journal of Finance and Economics* 21, 3.

to cultural, economic, or other—differences contribute to this “border effect.”⁷⁸ A social planner wishing to devise the optimal law configuration would need to know how greater standardization translates into higher equilibrium specialization S , lower transaction costs, and a higher equilibrium level of cross-border trade.

The difficulties do not end there for the daring policymaker. Specialization investments concern only direct network effects. Including indirect network effects in the analysis adds another layer of complexity.⁷⁹ The benefits of specialized legal services, judicial experience, and legal certainty rise with the volume of transactions carried out under a given law. Yet the returns to greater use likely diminish. For widely used laws, the marginal increase of indirect network effects should be small. The number of contracts of a given type concluded and performed under the laws of any larger jurisdiction should suffice to produce authoritative court rulings for the most important controversies. But if law communities with fewer users could be optimal in terms of proximity P and direct network effects from S , a lack of indirect network effects may well tip the balance.

1.4.2 Promise and limitations of market standardization

The difficulties of divining the optimal law configuration are disheartening. Even the most sophisticated and resourceful lawmakers or agencies—at the national, international, or supranational level—must fear to miss the mark, and by a wide margin. This suggests leaving the market a major role in finding the right configuration of contract and company laws. However, one naturally wonders whether the market is better suited to bring about the right balance of unification and variety. The answer is related to the general advantage of markets compared to

⁷⁸ Causal factors are hard to disentangle, see only S. Kalemli-Ozcan, E. Papioannou, and J. L. Peydró, ‘What lies beneath the euro’s effect on financial integration? Currency risk, legal harmonization or trade’ (2010) *Journal of International Economics* 81, 75; A. Turrini und T. Van Ypersele, ‘Traders, courts and the border effect puzzle’ (2010) *Regional Science and Urban Economics* 40, 82; M. Giannetti and Y. Yishay, ‘Do cultural differences between contracting parties matter? Evidence from syndicated bank loans’ (2012) *Management Science* 58, 365 (providing evidence for the effects of cultural differences). From a legal perspective, see G. Rühl, ‘The Problem of International Transactions: Conflict of Laws Revisited’ (2010) *Journal of Private International Law* 6, 59, 61–65.

⁷⁹ Indirect network effects are expounded above in Section 1.3.1.2. For inefficient equilibria due to indirect network effects, see Klausner, ‘Networks’, 789–815.

central planning: The market has the virtue of eliciting and aggregating decentralized information from private parties.⁸⁰ In contrast to a central legislator, market participants know their own needs and introduce their own individual balancing of Q , P , and S into the aggregate outcome.

To be more specific, allowing the market to choose a law configuration amounts to granting free choice of applicable law. Any market outcome reflects the parties' attempt at minimizing transaction costs by choosing the law with the greatest benefits in terms of Q , P , and S . Ignoring for the moment indirect network effects, the only source of inefficiencies then are the parties' specializations: Their existing specialization might drive them to choose a law with less Q and P even when a different specialization would make them prefer another law (with greater Q and P).⁸¹ The inefficiencies from choosing a particular law can never exceed the benefits from existing specialization in the law; if the losses were greater, the parties would rather forego the S from using the inferior law than giving up the higher Q and P from the superior law. An important implication is that inefficient equilibria are more likely to obtain for laws in which traders are more specialized, typically their home laws. For a foreign law, including one that serves as bridge standard, specialization benefits are considerably smaller, and so is the potential for inefficiencies. Overall, there is an inherent limitation how far the market can go wrong. No such natural barriers would exist for a government's attempt to force a law configuration on traders.

Similar reasoning leads to the conjecture that markets more likely fail at overcoming unwanted diversity (under-standardization) than through overshooting towards excessive unification (over-standardization). There are two reasons for this prediction. The first is that when a contract or company law is presently in use, at least some traders have specialized in it. Relinquishing the law would mean to abandon specialization benefits that one can readily enjoy. Although one acquires

⁸⁰ On the ability of markets to use dispersed knowledge see, famously, F. A. Hayek, 'The Use of Knowledge in Society' (1945) *American Economic Review* 35, 519; F. A. Hayek, 'Competition as a Discovery Procedure' (2002) *Quarterly Journal of Austrian Economics* 5, 9.

⁸¹ Note that this only constitutes an inefficiency if the alternative specialization would increase the sum of P , Q , and S across all transactions and all users.

specialization in the new law over time, there is a short-run opportunity cost from not using the law with the greater *S*. Expending these switching costs only pays if sufficiently many other traders move simultaneously. While the coordination problem plagues any change in law configuration, abandoning a law seems more difficult than starting to use a new one. Most national laws have existed for a long time and usually command a sizable user base. Even traders willing to make the switch retain their previous specialization, and thus should be ready to use the previous law if other parties insist on it.

The second reason to expect market failure in the direction of under-standardization is the ability and willingness of jurisdictions to promote their laws. States can force the parties to use their law, and sometimes they choose to do so.⁸² In addition, default rules secure each law those transactions in which the parties have, for whatever reason, failed to exercise their choice of law. Any national law almost inevitably comes to application in a significant number of cases.

The prediction that under-standardization is the more likely type of market failure is in line with the general policy impulse towards unification rather than towards a conservation of endangered laws or the promotion of legal variety. The fate of the UN Sales Law can serve as an example of under-standardization: The convention was signed in 1980 and came into force for the first contracting states in 1988. It applies to cross-border sales contracts between businesses as long as the parties do not specifically elect national law. A multitude of surveys in the last years indicated that many legal advisors—often considerably more than 40%—opt out of UN Sales Law as a matter of principle.⁸³ The explanations brought forward support the view

⁸² This happens, for instance, in contract law in relation to consumer protection, see G. Rühl, ‘Consumer Protection in Choice of Law’ (2011) *Cornell International Law Journal* 44, 569, 586–592 (providing an overview of restrictions to choice of law in contracts with consumers).

⁸³ See the overview provided in U. G. Schroeter, ‘Empirical Evidence on Courts’, Parties’ and Counsels’ Approach to the CISG (with some Remarks on Professional Liability)’, in L. DiMatteo (ed.), *International Sales Law: A Global Challenge* (New York: Cambridge University Press, 2014), p. 649. See also White & Case and Queen Mary University of London, ‘2010 International Arbitration Survey’, p. 15 (reporting that 53% of respondents had never closed contracts under international uniform law).

that switching costs prevent the UN Sales Law from establishing itself as bridge standard.⁸⁴

1.4.3 Policy options

Governments can force standardization, as witnessed by the many examples of national codifications as well as instances of international and supranational rules replacing national laws. At first sight, forced standardization has some appeal: Markets can be stuck in an unfavorable equilibrium when individual investments and collective legal capital lock traders in a less-than-optimal law configuration. Curing market failures is a quintessential task of the government. Another way to phrase this is that selecting from a variety of possible law configurations is a collective decision on behalf of all traders in the market. Law configuration could be seen as a natural part of the government's domain of collective decision-making.

However, such a far-reaching conclusion would overlook the enormous complexity of evaluating the efficiency of competing law configurations. While we can single out the important choice variables, estimating even their orders of magnitude is plain guesswork. As the preceding section has shown, although markets can miss the optimal law configuration, they are bound to the preferences of the immediate parties; at the very least, they provide a reliable assurance against over-standardization.

The following analysis therefore confines itself to evaluating, in general terms, two approaches at promoting desirable market standardization. The first envisions standardization as an additional role for competition between national jurisdictions (Section 1.4.3.1). The second compares it with optional uniform law as a more conventional method of overcoming fragmentation (Section 1.4.3.2).

⁸⁴ See the references in n. 83. But see, for a different interpretation, C. P. Gillette and R. E. Scott, 'The Political Economy of International Sales Law' (2005) *International Review of Law and Economics* 25, 446, 473–478 (pointing to the vagueness of the convention's legal rules and the lack of uniformity due to signatory state reservations).

1.4.3.1 Jurisdictional competition

Choice of law permits the parties to select the law most suitable for their transaction—the one that maximizes the sum of Q , P , and S . The idea of jurisdictional competition views the users of laws as the demand side of a market in which states act as the suppliers of laws as their “products.”⁸⁵ Jurisdictional competition has sparked a voluminous literature in company law and, to a lesser extent, in contract law.⁸⁶ Until now, the discussion has focused on the effects of competition on the substance of the laws being offered. While proponents praise jurisdictional competition for incentivizing lawmakers and courts to offer more efficient legal rules, critics warn of a pernicious “race to the bottom” that compromises the law’s protective role for those with little or no say in the choice-of-law decision.⁸⁷ Network effects open up a new perspective:⁸⁸ The competitive success of laws could hinge as much on the magnitude of network effects as on their substantive quality. It may pique the professional self-esteem of lawyers to admit that legal substance could matter little for the success of a given law. And yet, the substantive differences between mature laws could be quite unimportant for the efficiency of the transaction. Again, the analogy with human languages is instructive: Any two languages can lend themselves equally well to expressing a particular idea. The limiting factor is that speakers and listeners need a language they both know.

Even if jurisdictions do not compete on substance, there is still room for rivalry at the level of network effects: What makes the difference between providers of laws is not the quality of their product but—similarly to social networks on the internet—the

⁸⁵ Consider the title of Romano, ‘Law as a Product’. The general debate about regulatory competition goes back a long time, see seminally C. M. Tiebout, ‘A Pure Theory of Local Expenditure’ (1956) *Journal of Political Economy* 64, 416.

⁸⁶ Regarding company law, see the references in n. 50 (for the EU) and n. 53 (for the U.S.); see also as a starting point for the U.S. debate W. L. Cary, ‘Federalism and Corporate Law: Reflections Upon Delaware’ (1974) *Yale Law Journal* 83, 663. Regarding contract law, see Vogenauer, ‘Regulatory Competition’; G. Rühl, ‘Regulatory Competition in Contract Law’; H. Eidenmüller (ed.), *Regulatory Competition in Contract Law and Dispute Resolution* (Munich: C. H. Beck, 2013); L. E. Ribstein and E. O’Hara, *The Law Market* (Oxford: Oxford University Press, 2009).

⁸⁷ This concern was famously expressed by Justice Brandeis as early as 1933, *Louis K. Liggett Co. v. Lee*, 288 U.S. 517, 557–564 (1933) (Brandeis, J., dissenting).

⁸⁸ Indirect network effects had already been introduced to the debate by Klausner, ‘Networks’.

size and scope of their user base. The examples above demonstrate that national laws can become bridge standards for cross-border transactions or even the standard for purely domestic transactions outside their home market.⁸⁹ For a country, elevating one's law to an international standard can be desirable for various reasons. It helps domestic firms to insist on their home law in cross-border transactions, giving them greater specialization benefits. Exporting a country's national law rises the demand for complementary legal services, often provided by domestic lawyers and law firms.⁹⁰ If, for instance, English contract law has come to dominate the European market for debt securities,⁹¹ this gives English law firms an edge over its competitors from the Continent (at least as long Britain is still a member of the EU). It is also to the advantage of the respective place of jurisdiction and arbitration if one's law is widely used.⁹² On some occasions, states even generate immediate revenue from exporting their law.⁹³

Harnessing jurisdictional competition to establish a national law as an international standard also has efficiency advantages. An existing national law has an installed base. Market participants from the exporting country need not specialize in another law, saving them the cost of switching to a new international standard. This constitutes a benefit, even if it is confined to some traders. In addition to individual

⁸⁹ See Sections 1.3.2.2 and 1.3.3.2 above.

⁹⁰ See TheCityUK, *UK Legal Services 2016, Legal Excellence, Internationally Renowned* (London, 2016) and TheCityUK, *The Impact of Brexit on the UK-based Legal Services Sector* (London, 2016), both available at <https://www.thecityuk.com> (last visited 28 May 2017) (documenting the relevance of legal services for the UK economy); J. Linarelli, 'The Economics of Uniform Law and Uniform Lawmaking' (2003) *Wayne Law Review* 48, 1387, 1430–1434 (describing the significance of "Legal London").

⁹¹ See text before n. 47 above.

⁹² Cf. Cuniberti, 'International Market for Contracts', 475–481 (considering the link between arbitration venue and choice of contract law); Cuniberti, 'Laws of Asian International Business Transactions', 59–61 (finding an association between arbitration forum and contract law); E. Lein, R. McCorquodale, L. McNamara, H. Kupelyants, and L. del Rio, *Factors Influencing International Litigants' Decisions to Bring Commercial Claims to the London Based Courts* (Ministry of Justice, 2015), pp. 10 (reporting that around 80% of disputes before the London Commercial Court involved at least one and 50% only foreign parties); Eisenberg and Miller, 'Flight to New York', 1504–1505 (reporting an overwhelmingly strong correlation); White & Case and Queen Mary University of London, '2010 International Arbitration Survey', p. 9 (documenting 68% of survey respondents viewing choice of law and seat of arbitration as interdependent).

⁹³ In 2016, Delaware obtained 1.27 billion US-Dollars from its franchise tax on capital companies, around one third of its total tax revenues (source: *U.S. Census Bureau*, <https://www.census.gov/govs/statetax>, last visited 27 May 2017).

knowledge and experience, an existing law already commands indirect network effects from precedents, legal literature, and common practice. A new law—such as a uniform international contract law—would have to build such legal capital painstakingly while undergoing a period of legal uncertainty. After the new law had caught up, its use as a bridge standard for cross-border transactions would add one more legal regime to the abundance of existing laws. Recruiting a national law for the role of bridge standard avoids legal fragmentation and the cost of maintaining another set of rules.

As a possible objection, it could be speculated that legislators and courts are less sensitive to the regulatory needs in other states or in cross-border legal transactions. The desire to promote one’s own legal terms, however, counteracts that indifference. Actively competing jurisdictions should be sympathetic to foreign needs. Also, the geographical distance to the respective jurisdiction and its courts could be held against the use of national law as a bridge standard. The parties generally are interested in letting courts decide that are best acquainted with the applicable law.⁹⁴ As a consequence, they could end up litigating in a remote forum. Yet the opportunity to invoke a proficient, if distant, court should be seen as an advantage of using a national law. A newly drafted uniform law would lack any forum of special expertise. Compared to uniform international law, parties suffer no disadvantage from using a national law, but they enjoy the additional option to resort to the knowledgeable courts of the respective state if they are willing to bear the costs.

A final argument in favor of jurisdictional competition is the self-interest of states. Owners of networks have an incentive to market their offerings.⁹⁵ In doing so, they seek to orchestrate users’ expectations towards their national law as the market standard. In the case of contract and company laws, the main driver behind promotion activities is usually the legal services industry that profits directly when its home law is chosen.⁹⁶ This advocacy could help overcome the market’s

⁹⁴ See n. 92 above.

⁹⁵ See Farrell and Klemperer, ‘Coordination and Lock-in’, p. 2021 (discussing the ability of network owners—like the producer of an operating system for computers—to internalize network effects).

⁹⁶ See, e.g., the lobbying activities of “TheCityUK” as documented by the references in n. 90 above.

predisposition towards under-standardization. However, the advantage of a self-interested owner also has a flip-side. The struggle to promote one's law can lead to anti-competitive behavior. The corollary of growing business opportunities for lawyers from a successful jurisdiction is the declining demand for legal services from other jurisdictions. States and lawyers may be tempted to thwart standardization on a competing law. Economically speaking, this is a case of harmful rent seeking.⁹⁷ Legal advisors could fight for the application of their own domestic law and for that make concessions in bargaining at the expense of their clients. Likewise, competition at the state level can degenerate into harmful law protectionism.⁹⁸ For example, the fact that the United Kingdom as never ratified the UN Sales Law might be attributed to the market potential of English law as international standard.⁹⁹

1.4.3.2 Uniform law

Different from jurisdictional competition, uniform law needs less introduction as a policy tool; it is the conventional way of pursuing legal unification. At first glance, however, it comes with many disadvantages compared to national law. First of all, uniform law starts without a user base. All parties and lawyers have to learn a legal "Esperanto". The collective capital tied to a law—legal certainty from precedents, discourse, and established practice—has to be built from scratch. If uniform law does not replace national laws, it adds the ongoing costs of operating and updating a distinct set of rules. The way it is drafted and enacted further burdens uniform law. As it is created through international conventions or supranational legislation, it often reflects a compromise between different legal concepts.¹⁰⁰ It is then up to a lengthy process to give vague and ambiguous rules a practicable and clarified content. The

⁹⁷ Seminally G. Tullock, 'The Welfare Costs of Tariffs, Monopolies, and Theft' (1967) *Western Economic Journal* 5, 224; the term itself was coined by A. O. Krueger, 'The Political Economy of the Rent-Seeking Society' (1974) *American Economic Review* 64, 291.

⁹⁸ On the alliance between lawyers and their home law, see Ogus, 'The economic basis of legal culture', 426–427.

⁹⁹ See Linarelli, 'The Economics of Uniform Law', 1426–1435; S. Moss, 'Why the United Kingdom Has Not Ratified the CISG' (2005) *Journal of Law and Commerce* 25, 483 (pointing to lack of interest but also to concern over London's position as arbitration and adjudication venue).

¹⁰⁰ See Gillette and Scott, 'Political Economy of International Sales Law', 459–462; likewise for restatements und uniform laws in the U.S., A. Schwartz and R. E. Scott, 'The Political Economy of Private Legislatures' (1995) *University of Pennsylvania Law Review* 143, 595, 604–607.

cumbersome process of enacting uniform law also makes amendments exceedingly difficult. Uniform law is more prone to petrification.¹⁰¹

The special virtue of uniform law arises from what was just declared an advantage of national laws. If a national law succeeds as international standard, the benefits are distributed unevenly: Lawyers and traders from the prevailing jurisdiction gain much from their unique proximity *P* to the standard and the opportunity to concentrate their specialization investment in a single law. Other jurisdictions likewise obtain specialization benefits *S*, but less so if they continue to use their own law for domestic transactions. The asymmetry between the standard-setting jurisdiction and all others weigh less heavily for traders because they will, on average, share transaction cost savings. It is, however, of great concern for lawyers whose proximity and specialization in the applicable law directly affects the cost and quality of their service. The prospect of a foreign law becoming the international standard can, therefore, stir resistance in other jurisdictions because their lawyers would find themselves at a competitive disadvantage.

Ironically, the wasteful duplication of specialization investments and legal capital could be the greatest advantage of uniform law in competing against national laws. An indication of this is the observation that lawyers tend to pick a neutral law instead of either parties' domestic law.¹⁰² To the same effect, the laws of small jurisdictions seem particularly successful as bridge standards; Switzerland and Singapore are examples. Intuitively, lawyers may develop a special fondness of uniform law precisely because it is not "owned" by a single state and its lawyers. Its neutrality sets uniform law apart from national laws.¹⁰³

¹⁰¹ Gillette and Scott, 'Political Economy of International Sales Law', 482.

¹⁰² See White & Case and Queen Mary University of London, '2010 International Arbitration Survey', p. 14. Another likely motivation is to avoid a pronounced asymmetry in legal knowledge to prevent attempts at exploiting legal mistakes by the other, less informed party, which could cause or exacerbate costly disputes.

¹⁰³ One reason cited by firms incorporating as a *Societas Europaea* (SE)—the public company form provided by EU law—is that it is not seen as a national entity but as truly European, H. Eidenmüller, A. Engert, and L. Hornuf, 'Incorporating under European Law: The *Societas Europaea* as a Vehicle for Legal Arbitrage' (2009) *European Business Organization Law Review* 10, 1, 27–28.

1.5 Outlook

The economics of network effects provide a framework for analyzing the international standardization of private laws. An advantage of standardization is cost savings from greater specialization of the parties to a transaction—direct network effects. Next to them are indirect network effects, the benefits from refining laws through extensive use and from reducing maintenance costs across all laws and for society at large. In addition to explaining efficiencies from standardization, economic theory contributes to understanding the reach and potential shortcomings of voluntary standardization in markets. In this regard, the main conclusions are both hopeful and sobering. They are hopeful insofar as the market has an ability to detect and realize gains from standardization. At the same time, network effects can cause the market to remain stuck in an inferior equilibrium, especially one with under-standardization and an excess of laws being used. The prospect for optimal standardization is especially dim in company law. The inability to vary the company law of an entity for different stakeholders and contract partners makes it hard to escape the gravity of a firm's home law. Apart from the special case of the U.S., there is little chance of a company law bridge standard for large firms with international exposure. The multinational company group with subsidiaries under various local laws is the only imperfect substitute.

In theory, a very valuable role for governments and legislators could lie in helping the market to overcome fragmentation by removing some unneeded laws. Given that this would mean discarding the creatures of their own (national) law making, they are unlikely to embrace this role. It then only remains to promote a more efficient configuration of the existing laws. The immense complexity cautions against much confidence in engineering an optimal configuration. Markets may fail to achieve the optimum but, at the very least, are unlikely to over-standardize. Conflict-of-laws rules can support market standardization by abolishing restrictions on choice of law to avoid artificial fragmentation. National jurisdictions can then compete through promoting familiarity and widespread adoption of their laws as market standards.