

2022

Contracts Without Courts or Clans: How Business Networks Govern Exchange

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Recommended Citation

Sadie Blanchard, *Contracts Without Courts or Clans: How Business Networks Govern Exchange*, 57 Ga. L. Rev. 233 (2022).

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CONTRACTS WITHOUT COURTS OR CLANS: HOW BUSINESS NETWORKS GOVERN EXCHANGE

*Sadie Blanchard**

Legal scholars have long recognized the close-knit community as an alternative means of supporting trade when contract law and trusted courts cannot. But recent research suggests that another option may be available: heterogeneous business networks. What is interesting is that these networks lack features traditionally seen as essential to community-supported trade. In particular, they lack preexisting social ties that allow reliable information to spread at low cost, make exiting the trade difficult, and enable the coordinated sanctioning of cheaters. As a result, some leading scholars have come to doubt that these networks are capable of sustaining cooperation.

This Article offers compelling evidence that heterogenous business networks can indeed sustain high-stakes trade. Through an original case study of the reinsurance industry, it shows that when the gains from trade are sufficiently robust, parties can build mechanisms to spread the reliable information needed to support trade by starting with transactions that align incentives and require high transparency. Parties can then strengthen their commitments by both investing in the bilateral relationship and building a network that connects each party to the other's contacts. This strategy helpfully allows information about behavior in trading

* Associate Professor, Notre Dame Law School. I wish to thank Lisa Bernstein, Robin Effron, Anna Gelpern, Matthew Jennejohn, Daniel Markovits, Ed Morrison, Mark Ramseyer, participants in the American Law and Economics Association Annual Meeting, the Society of Institutional and Organizational Economics Annual Meeting, the Canadian Law and Economics Association Annual Meeting, the Chicagoland Junior Faculty Workshop, the Junior Business Law Scholars Workshop, and the Young Bankruptcy Scholars Workshop, as well as in workshops at Brigham Young University, Brooklyn Law School, Indiana University Maurer, Notre Dame, Penn State University Park, Seton Hall, Tulane, and the University of Chicago. I am also grateful to the reinsurance professionals who generously agreed to speak with me and, for excellent research assistance, to Zachary Beculheimer, Kevin Constantine, John Dugan Delp, William Eisenhauer, Mairead Fitzgerald-Mumford, Holly Lanchantin, Justin Maroni, Sravya Nallaganchu, and Marquan Robertson. Any errors are mine.

relationships to spread at low cost. Once constructed, the network enables reputation-based bonding of higher-risk transactions and a greater variety of transactional terms than can be supported by incentive alignment alone. In short, this study of the reinsurance trade suggests that cultivated, freestanding business networks can support extralegal private ordering under a broader set of circumstances than legal scholars currently appreciate.

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I. INTRODUCTION

Legal scholars have long recognized that when formal contracting is unavailable to a group of traders, the clan or close-knit community is an alternative institution that can support trade through reputational governance. The classic example in the legal literature—described in the most-cited contract law article of the last quarter century—is the community of Orthodox Jewish diamond merchants in New York.¹

The features of close-knit communities that enable reputation-backed trade, though, are widely viewed as existing only within a narrow set of circumstances.² The close-knit community or clan is able to support risky cooperation, the theory goes, for two reasons: its members have multidimensional relationships that transcend commercial matters and exiting the community is prohibitively costly.³ Reputation works in these communities, it is thought, because they are densely connected, closed networks.⁴ Members trust one another because word of misbehavior will assuredly spread widely, leaving wrongdoers with nowhere to hide and nowhere to go.

Contrast the close-knit community with business networks that are geographically dispersed and heterogenous—networks in which people may come and go with relative ease, and connections are

¹ Lisa Bernstein, *Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry*, 21 J. LEGAL STUD. 115 (1992) [hereinafter Bernstein, *Opting Out*]; see also Ted Sichelman, *Top 25 Most Cited Contract Law Articles Published in the Last 25 Years*, NEW PRIV. L. (Sept. 10, 2015), <https://blogs.harvard.edu/nplblog/2015/09/10/top-25-most-cited-contract-law-articles-published-in-the-last-25-years-ted-sichelman/> (listing Bernstein's article as the most cited contract law article published in the last twenty-five years).

² Some leading scholars have recently challenged this prevailing assumption. See Lisa Bernstein, *Contract Governance in Small-World Networks: The Case of the Maghribi Traders*, 113 NW. U. L. REV. 1009, 1014–15 (2019) [hereinafter Bernstein, *Contract Governance*] (“[T]he legal literature on private ordering should move beyond its focus on small, geographically concentrated, close-knit groups . . . and begin to explore the wide variety of network structures . . . that can be used to support exchange.”); Lisa Bernstein, Alan Morrison & J. Mark Ramseyer, *Private Orderings*, 7 J. LEGAL ANALYSIS 247, 250 (2015) (“[T]he social forces and institutions that make private ordering effective can and do operate in contexts that are not characterized by the conditions that the legal literature commonly associates with their success such as small, geographically concentrated, socially or ethnically homogenous groups.”).

³ See *infra* Section II.B.

⁴ See *infra* Section II.B.

fewer and weaker. Traders can do business outside the network. Word of misbehavior might fail to reach all potential trading partners. More fundamentally, since ties are weak, it might be hard for others to tell who is really at fault when a deal goes badly. Each of these factors would seem to make reputation less effective. As a result, some leading scholars are skeptical of recent research suggesting that geographically dispersed and heterogeneous business networks might support robust, reputation-based governance of complex obligations.⁵ Can such business networks sustain high-stakes cooperation on matters that courts cannot reach? If so, how?

This Article shows that loose-knit business networks can indeed sustain complex, high-stakes cooperation and explains how they can do so. It provides an original case study of a sophisticated, high-stakes trading network that was built for commercial activity. The business network examined here is the reinsurance industry from its inception in the late nineteenth century until around 1980. The experience of reinsurance—insurance for insurance companies⁶—shows that the challenges to network-based reputational governance among a loosely connected group facing noisy signals can be overcome when the expected gains from trade are large enough and stable enough and commitments cannot be backed cost-effectively by law and courts.⁷

Details about the reinsurance trade—which sustained the global insurance industry for over 100 years—were gathered from published writings by, and original interviews with, people who worked in the industry as well as from recent scholarly work by historians and sociologists.⁸ What surfaces is that groups without preexisting ties can initiate and sustain reputation-backed trade by aligning incentives, committing to transparency, making targeted investments in bilateral relationships, and—by bootstrapping from

⁵ See *infra* Section II.B and sources cited therein; see also Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Contracting for Innovation: Vertical Disintegration and Interfirm Collaboration*, 109 COLUM. L. REV. 431, 478 n.123 (2009) [hereinafter Gilson et al., *Contracting for Innovation*] (expressing skepticism that reputational governance might work in the biotech industry). Because of those challenges, legal scholars have explained observed extralegal contracting as resting on either partial buttressing by courts or on long-term relational contracting between two parties. See *infra* Section II.C.

⁶ See *infra* note 57 and accompanying text.

⁷ See *infra* Section IV.C.

⁸ The Author's interview methodology is described in the Appendix.

those mechanisms—building a network that allows useful information about traders’ behavior to spread. In short, when the gains from trade are sufficiently large and legal institutions cannot support exchange, intentionally cultivated business networks can.

The risk spreading that was essential for reinsurance to work required traders to transact with a large number of others at great distances, including on different continents. The trade was established during a time when the legal and communications infrastructures available for long-distance trade were rudimentary. Courts were in practice unsuitable for dispute resolution because of the need for confidentiality and adjudicators with a deep understanding of the trade.⁹ Therefore, reinsurance agreements were for most of their history governed extralegally.¹⁰ Parties eschewed courts and directed industry arbitrators not to interpret contracts literally but instead to view the parties’ relationships as “honorable engagements” or “gentlemen’s agreements.”¹¹ This is remarkable in light of the high stakes, uncertainty, and complexity involved. It is also instructive.

In lieu of law and courts, reinsurance traders designed deals that enabled initial cooperation with minimal trust. They did so by ensuring that both sides would lose or gain together and by being transparent about their conduct relevant to the other party’s gains from the deal. Traders strengthened trust and information channels by making targeted investments in personal relationships that allowed them to learn a great deal about the capabilities and trustworthiness of selected counterparties and, indirectly, about other traders connected to those counterparties. Starting with these tactics, they built a global business network that functioned as an additional mechanism for sustaining extralegal trade. The network provided a number of benefits: riskier but higher-value trade, trade with more counterparties, and a greater variety of deal structures than would have been possible by relying only on bilateral relationships and incentive alignment.¹² Understanding how reinsurance traders built and employed their network to create new opportunities for cooperation is instructive for economic cooperation today. Complex collaborations among firms to create new products

⁹ See *infra* Section III.C.

¹⁰ See *infra* Parts III, IV.

¹¹ See *infra* note 167 and accompanying text.

¹² See *infra* Part V.

are an important and growing source of innovation and productivity in the global economy.¹³ Core duties in these collaborations are not susceptible to formal, judicially backed contracting, and the collaborations have a high failure rate.¹⁴ By building and leveraging business networks, parties can increase the value they are able to create through such collaborations.

There is also a theoretical payoff. Recognizing the ability of groups of traders to build networks for reputational governance from the ground up suggests, for contract theorists, a new way of understanding how economic actors might bond commitments, and, for transactional lawyers, a framework for better understanding and creating value for clients. Extralegal trade backed by cultivated, freestanding business networks might arise any time judicial enforcement of obligations is costly. Court enforcement might be costly because of limited judicial competence in the subject of trade; limited judicial enforcement power, such as from geographic dispersion or systematically under compensatory damages; or parties' interest in confidentiality. That is to say, reputation in cultivated networks holds the potential to enable value-creating collaboration across a broad range of economic activity. A network will be built only when the cost of building it is no greater than the value of gains from trade, the cost of state-backed enforcement, or the cost of other bonding mechanisms such as technologically enabled reputation verification. Network-based governance might also require a minimum level of market stability so that players are not excessively concerned about other traders entering an end-game state that undermines the expected value of future trade. While those conditions might no longer apply to reinsurance,¹⁵ they are present and will continue to be present

¹³ See Matthew Jennejohn, *The Private Order of Innovation Networks*, 68 STAN. L. REV. 281, 285, 298 (2016) [hereinafter Jennejohn, *The Private Order of Innovation Networks*] (discussing the dynamics of complex collaborative networks among firms to create new technology); Kyle J. Mayer & Nicholas S. Argyres, *Learning to Contract: Evidence from the Personal Computer Industry*, 15 ORG. SCI. 394, 395, 405 (2004) (analyzing interfirm collaborative relationships and how firms learn to contract).

¹⁴ See Jennejohn, *The Private Order of Innovation Networks*, *supra* note 13, at 288, 295–96 (outlining informal governance mechanisms in networks and explaining that “[a] number of studies have found that a majority of alliances [i.e. networks] fail”).

¹⁵ See *infra* Part VI.

across the economy, including in cutting-edge technological production.¹⁶

Part II explains how the reinsurance industry differs from groups of traders described in the literature on extralegal private ordering and outlines this study's two key contributions to that literature.¹⁷ First, this Article offers new evidence, from an original case study, that supports the theory that looser-knit groups can support complex trade. Second, it shows that the ties required to sustain reputational governance within such a group do not require preexisting noncommercial social ties such as those arising from a shared distinctive subculture or close family relationships. Rather, this study reveals how a group of traders can overcome the hurdles to initial cooperation that are present when reputational information channels are absent and can purpose-build an information-spreading network for commercial purposes.

Part III introduces the peculiar historical world of reinsurance, in which hundreds of millions of dollars were pledged, contingent on conditions left intentionally vague, in agreements that were not credibly legally enforceable, to counterparties scattered across oceans. It tells the story of the rampant moral hazard that nearly destroyed reinsurance during its early years, the consequent development of a global reinsurance network that sustained the insurance industry worldwide, and the possible decline of that network in the late twentieth century. This Part explains the extralegal forms reinsurance traders used in their transactions—including highly incomplete contracts, vague norms, purely extralegal obligations, and equitable dispute resolution—and why they used them.

Part IV shows how reinsurance traders initiated cooperation without legal backing and proceeded to construct a global network that sustained the global insurance industry. It identifies and theorizes the deal structures, the business relationships, and the purpose-built commercial network that sustained informal exchange without recourse to courts.

Part V discusses the possible decline of network-based governance in reinsurance and what it suggests about the future of network-based private ordering. It discusses possible causes and argues that even if network governance is no longer dominant in

¹⁶ See *infra* Section II.C and sources cited therein.

¹⁷ See *infra* notes 48–51 and accompanying text.

reinsurance, the case of reinsurance has continuing relevance for other economic sectors because the conditions that gave rise to network governance in reinsurance are present throughout the modern-day global economy.

Part VI concludes by outlining the general lessons to be drawn from the reinsurance case. The experience of reinsurance highlights the limits of generalist courts' capability to engage in contextualist adjudication—such as that envisioned in the Uniform Commercial Code—to support complex, high-stakes economic activity. Contract theorists should look for similar network-building as a contractual governance structure across fields of economic activity. Reinsurance also holds lessons for lawyers seeking to design deals that reduce the likelihood and the costs of disputes and contract failure for their clients.

II. CONTRACTING WITHOUT COURTS OR CLANS: TRADE IN A FREESTANDING BUSINESS NETWORK

The scholarship on methods for bonding contractual commitments has focused on three mechanisms: long-term bilateral relationships, courts and other formal enforcement mechanisms, and multilateral reputation.

Bilateral sanctions will in some cases be adequate to prevent suboptimal performance. If two parties expect to deal with one another again, the prospect of future dealings might deter cheating or shirking in the present round of exchange.¹⁸ The discipline of long-term bilateral relationships, however, is limited by the prospect that the relationship will end, which in turn depends on the extent of relationship-specific investment and the availability of alternative counterparties.¹⁹ If either party can exit the relationship

¹⁸ See Benjamin Klein, *Why Hold-Ups Occur: The Self-Enforcing Range of Contractual Relationships*, 34 *ECON. INQUIRY* 444, 449 (1996) (modeling the threat of relationship termination as an extralegal enforcement mechanism); David M. Kreps, Paul Milgrom, John Roberts & Robert Wilson, *Rational Cooperation in the Finitely Repeated Prisoners' Dilemma*, 27 *J. ECON. THEORY* 245, 247–48 (1982) (modeling how knowledge that the relationship will continue for a specified number of future rounds might affect decision whether to maximize immediate payoff).

¹⁹ See Emily Kadens, *Cheating Pays*, 119 *COLUM. L. REV.* 527, 537 (2019) (explaining that if a party does not have meaningful alternative partners, she cannot refuse to deal with a cheating counterparty, or refusing to deal with a cheater is not worth the cost of switching to a new partner unless cheating reaches a threshold); Joel Sobel, *For Better or Forever: Formal*

at low cost, because it has not made substantial relationship-specific investment and other counterparties are available, then bilateral cooperation is susceptible to failure.²⁰

Therefore, exchange that depends heavily on extralegal private ordering tends to involve not only the threat of loss of one relationship, but also the credible threat of the loss of future trade with others because knowledge of the breach will spread.²¹ Alternatively, private ordering operates over a range of the transacting relationship but is backstopped by formal, legal contract, including the availability of recourse to courts in certain circumstances. Empirical descriptions by legal scholars and economists of informal contracting can be grouped into two ideal types: court-backed trade and clan-based trade. Some cases rely on both courts and clans, each for different aspects or phases of trading relationships.

A. COURTS

Parties often plan to rely on legal forms and institutions—written contracts and courts—for the end-game of their relationship, that is, in the event that governance by bilateral or multilateral reputation or norms of reciprocity break down.²² Some groups of traders create private legal systems that operate like courts in that traders commit in advance to delegate authority to a third-party adjudicator to decide disputes according to formal norms and processes.²³ Even when the industry arbitration systems

Versus Informal Enforcement, 24 J. LAB. ECON. 271, 272 (2006) (demonstrating that the power of bilateral private sanctions increases with the cost of starting a new relationship); Klein, *supra* note 18, at 449 (describing the self-enforcing range of contractual relationships as a function of the parties' transaction-specific investments); Rachel E. Kranton, *Reciprocal Exchange: A Freestanding System*, 86 AM. ECON. REV. 830, 831 (1996) (demonstrating that the availability of thicker markets undermines bilateral enforcement).

²⁰ See Kranton, *supra* note 19, at 831 (finding that an availability of alternative sources of goods impacts enforceability of, and gains from, relational trading).

²¹ See *infra* note 31 and accompanying text.

²² See Stewart Macaulay, *Non-Contractual Relations in Business: A Preliminary Study*, 28 AM. SOCIO. REV. 55, 62 (1963) (describing companies that planned their contracts carefully and exhaustively yet ignored their contracts in day-to-day interactions, relying instead on mutual accommodation and negotiation).

²³ See generally Gillian Hadfield & Barry Weingast, *Law Without the State: Legal Attributes and the Coordination of Decentralized Collective Punishment*, 1 J.L. & CTS. 3 (2013) (modeling the role of decentralized enforcement mechanisms in trade systems); Lisa Bernstein, *Private*

lack courts' ability to coercively enforce arbitration awards, they have power that similarly functions to deter noncompliance.²⁴ Noncompliance can be reported in industry newsletters, and traders can be expelled from trade associations and exchanges.²⁵ Trade associations articulate published rules and maintain arbitration systems.²⁶ Arbitrators' opinions are published or communicated by word of mouth.²⁷ On the spectrum of extralegal ordering modes ranging from informal to formal,²⁸ these private legal systems are more court-like in their formality.

B. CLANS OR CLOSE-KNIT COMMUNITIES

Clan-based trade is a more informal type of extralegal ordering. "Clan" is used here as a shorthand for the conventional model of a

Commercial Law in the Cotton Industry: Creating Cooperation through Rules, Norms, and Institutions, 99 MICH. L. REV. 1724, 1731–36 (2001) [hereinafter Bernstein, *Private Commercial Law*] (discussing the cotton industry's private legal system); Lisa Bernstein, *Merchant Law in a Merchant Court: Rethinking the Code's Search for Immanent Business Norms*, 144 U. PA. L. REV. 1765, 1769–70, 1775–79, 1781–82 (1996) [hereinafter Bernstein, *Merchant Law*] (comparing private legal systems created by merchant practices to the system created by the Uniform Commercial Code).

²⁴ See Hadfield & Weingast, *supra* note 23, at 9 (indicating that in the absence of a third-party institution like a court, deterrence of noncompliance must be achieved through decentralized collective punishment).

²⁵ Bernstein, *Merchant Law*, *supra* note 23, at 1772; see also Bernstein, *Private Commercial Law*, *supra* note 23, at 1737–38 ("Expulsions [from the Exchange] are widely publicized."); Bernstein, *Opting Out*, *supra* note 1, at 120 ("The agreement to arbitrate is binding. Unless the club opts not to hear the case, the member may not seek redress of his grievances in court. If he does so, he will be fined or expelled from the club. Furthermore, since the agreement to arbitrate is binding, the court will not hear the case."). Present-day industry arbitration systems often rely on state enforcement. But because of confidentiality requirements and other barriers, judicial enforcement of arbitration awards is sometimes unavailable in practice. Bernstein, *Opting Out*, *supra* note 1, at 124, 129–30.

²⁶ See, e.g., Bernstein, *Opting Out*, *supra* note 1, at 124 (describing the arbitration system maintained by the Diamond Dealers' Club); Bernstein, *Merchant Law*, *supra* note 23, at 1772 (referring to the rules established by the National Grain and Feed Association).

²⁷ See Bernstein, *Private Commercial Law*, *supra* note 23, at 1729–30 ("[Board of Appeals] opinions are circulated to all [American Cotton Shippers Association] and [American Textile Manufacturers Institute] members."); Bernstein, *Merchant Law*, *supra* note 23, at 1818, 1820 n.167 (noting that the National Grain and Feed Association "circulates arbitration opinions to all its members").

²⁸ See BARAK D. RICHMAN, STATELESS COMMERCE: THE DIAMOND NETWORK & THE PERSISTENCE OF RELATIONAL EXCHANGE 10–13 (2017) (presenting extralegal dispute resolution mechanisms ranging from private to public and from formal to informal and including mechanisms such as arbitration and the "Spontaneous Reputation Mechanism").

close-knit community. The clan typically bonds commitments when reliable courts are not available or because courts cannot process the kind of information required to assess the transacting parties' behavior.²⁹ Clan-like trading networks provide value especially when the trade requires qualitative information about not only behaviors but also the context that helps to explain the reasons for behaviors.³⁰

The close-knit community or clan is able to support cooperation, according to clan theory, because its members have multidimensional relationships that transcend commercial matters and because exit is prohibitively costly.³¹ A body of scholarly case studies describes how social interdependence among tight-knit ethnic and religious groups and in small, geographically concentrated communities allows those communities to operate as trading networks that support robust trade with either minimal or no reliance on conventional contract law institutions.³² Group homogeneity and the intermingling of commercial and personal social roles have been understood as important to enabling network-supported cooperation absent formal contract.³³ There are several

²⁹ See John McMillan & Christopher Woodruff, *Private Order Under Dysfunctional Public Order*, 98 MICH. L. REV. 2421, 2425 (2000) (describing the advantages in such situations that community solutions have over courts).

³⁰ See Walter W. Powell, *Neither Market nor Hierarchy: Network Forms of Organization*, 12 RSCH. ORG. BEHAV. 295, 304 (1990) (stating that such networks "are particularly apt for circumstances in which there is a need for efficient, reliable information" and that networks are "especially useful for the exchange of commodities whose value is not easily measured").

³¹ See RUSSELL HARDIN, *TRUST & TRUSTWORTHINESS* 21–23 (2002) (describing communal incentives which motivate actors in "thick communities" and discussing reasons for actions which are "less rational").

³² See Naomi R. Lamoreaux, Daniel M. G. Raff & Peter Temin, *Beyond Markets and Hierarchies: Toward a New Synthesis of American Business History*, 108 AM. HIST. REV. 404, 417 (2003) (describing how commercial actors in early U.S. history were connected on multiple social and economic dimensions); McMillan & Woodruff, *supra* note 29, at 2426 (describing how monopolists can rely on bilateral sanctions while other traders rely on multilateral reputational sanctions); Douglas W. Allen & Dean Lueck, *The "Back Forty" on a Handshake: Specific Assets, Reputation, and the Structure of Farmland Contracts*, 8 J.L. ECON. & ORG. 366, 368–70 (1992) (observing that farmers and landowners have reason to desire repeat-dealing and also that farming communities are small and close-knit and farmers and landowners are generally immobile, thereby producing effective multilateral reputational governance).

³³ See Powell, *supra* note 30, at 300, 302, 326 (noting how homogeneity leads to cooperation and that "[t]he more homogenous the group, the greater the trust, hence the easier it is to sustain network-like arrangements" and that "[w]hen the diversity of participants increases, trust recedes, and so does the willingness to enter into long term collaborations"). The case

theories of the mechanism by which such clans are able to support trade without state-provided law. All accounts require that the group provide channels for information about traders' behavior to spread at low costs.³⁴ Some accounts add a tacit agreement among group members to boycott anyone who cheats another member.³⁵ A third theory emphasizes the role of shared norms of behavior, which coordinate expectations and reduce the likelihood of mistaken interpretations of counterparties' actions.³⁶ Some leading accounts emphasize the presence of a communal ethos within the community

studies exemplifying network-based exchange in Powell's paper reveal a high incidence of geographically concentrated production. *See id.* at 309–10 (detailing the pervasiveness of industrial districts and concentrated “zones” in some industries). The case that long seemed exceptional to clan theory, that of trade in medieval Europe, has recently been shown to have been largely facilitated by government regulation of quality or composed of spot transactions, which do not require the trust needed for sequential performances. *See* Emily Kadens, *The Myth of the Customary Law Merchant*, 90 TEX. L. REV. 1153, 1201 (2012) (detailing how merchants dealt in markets and the mechanisms which governed the transactions of such merchants).

³⁴ *See* JANET TAI LANDA, ECONOMIC SUCCESS OF CHINESE MERCHANTS IN SOUTHEAST ASIA: IDENTITY, ETHNIC COOPERATION AND CONFLICT 80–81 (2016) (describing the pervasiveness of low-cost information networks in trade networks); Bernstein, *Opting Out*, *supra* note 1, at 133, 140 (discussing “reputation bonds” and the role they play in small and large-scale markets); Avner Greif, *Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies*, 102 J. POL. ECON. 912, 916 (1994) [hereinafter Greif, *Cultural Beliefs*] (“[R]epeated interactions and the resulting social networks for information transmission facilitate informal collective economic and social punishments for deviant behavior.”).

³⁵ *See* Avner Greif, *Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders*, 49 J. ECON. HIST. 857, 868 (1989) [hereinafter Greif, *Reputations and Coalitions*] (“[A]ll coalition merchants agree never to employ an agent who cheated while operating for a coalition member.”); Greif, *Cultural Beliefs*, *supra* note 34, at 922–24 (describing the “value of mutual responsibility” and the “use of collective punishment,” which could harm the reputation of individuals who violated community norms); HARDIN, *supra* note 31, at 184 (noting the manner in which small communities may shun members of the community who violate norms in a manner that is so severe “as to make continued life in [the] community difficult or untenable”).

³⁶ *See* LANDA, *supra* note 34, at 47–48 (discussing shared Confucian norms in traditional China and their effect on trade).

of traders.³⁷ Some even argue that the requisite conditions for clan-backed trade exist only in collectivist cultures.³⁸

Even apart from theories viewing collectivist norms as a precondition for extralegal trade, clans have been understood as being distinctive in providing conditions that facilitate the reliable information dissemination required to support informal exchange.³⁹

³⁷ For example, Landa argues that *guanxi*—the Confucian norms of implicit mutual obligations and reciprocity among kin and clan, and the resulting Chinese social institution of mutual aid known as *pang*—was crucial to the informal trade-supporting institutions of the networks of Hokkein Chinese middlemen who traded rubber in Malaysia. *See id.* at 45–49 (providing a history of how Chinese immigrants adapted traditional Confucian values to create mutual aid communities). Duties of loyalty and solidarity were key. *Id.* They were strongest among nuclear family members. *Id.* Among Chinese emigrants living far from their kin networks, these duties of loyalty and solidarity were transferred to others who came from the same village or region. *Id.* at 13, 45–49. Emigrants from the same village or region grouped together for mutual aid because of a common bond. *Id.*

³⁸ Greif argues that collectivist culture is necessary to support clan-backed trade. Greif, *Cultural Beliefs*, *supra* note 34, at 913. He defines a collectivist culture as one in which trading takes place primarily among “members of a specific religious, ethnic, or familial group [and] in which contract enforcement is achieved through ‘informal’ economic and social institutions, and members of collectivist societies feel involved in the lives of other members of their group.” *Id.*; *see also* Avner Greif, *Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders’ Coalition*, 83 AM. ECON. REV. 525, 526 (1993) [hereinafter Greif, *Contract Enforceability*] (hypothesizing that the informal and implicit ties between Maghribi traders enabled their coalition); Greif, *Reputation and Coalitions*, *supra* note 35, 867–68 (exploring the incentives driving agency relations in the Maghribi coalition). In Greif’s classic studies, Maghribi Jewish traders in the Muslim world exemplify collectivist culture, and individualist, European culture cannot support robust informal exchange. Greif, *Cultural Beliefs*, *supra* note 34, at 917, 920–21.

³⁹ The Maghribi traders maintained religious, communal, and familial ties that facilitated relatively low-cost transmission of information. *See* Greif, *Cultural Beliefs*, *supra* note 34, at 922–23 (noting how the Maghribi traders were non-Muslims who adopted the values of Muslim society and that these “associated collectivist culture beliefs . . . encouraged retaining an affiliation with this information network”). In her account of the Maghribi traders, Bernstein emphasizes the way that the network structure of ties among traders reduced information costs. *See* Bernstein, *Contract Governance*, *supra* note 2, at 1019–24 (showing how cultural ties helped ease the flow of information trading). Similarly, Hokkein middlemen in Malaysia cited the relative ease of learning of other Hokkein merchants’ reputations as a key reason they preferred to trade with them. *See* LANDA, *supra* note 34, at 50 (describing “business entrepreneurship and community leadership” among Chinese emigrants in Asia as “inextricably intertwined”). Likewise, diamond merchants were able to post credible reputation bonds at low cost because they were members of a homogeneous, geographically concentrated group. *See* Bernstein, *Opting Out*, *supra* note 1, at 116, 133 (“Brokers are able to gather information about individuals’ reputations for trustworthiness at a lower effective cost than individual buyers and sellers because a broker’s investment is less transaction specific.”). As the homogeneous group regime broke down, the market shifted to a

Such accounts have been read widely as suggesting that non-commercial interpersonal ties such as those arising from family connections, within ethnic or religious subcultures, or among inhabitants of a geographic area in a world of low mobility are critical to sustaining the low-cost, reliable information channels that supported extralegal trade.⁴⁰

But, in reality, clans are only a special case of a general phenomenon. When courts are unavailable or unsuitable to the desired exchange and the potential gains from privately ordered trades are sufficiently large, groups of transactors can devise alternatives to bond commitments, including by creating networks that serve the information dissemination function of clans.⁴¹ The next Sections introduce the freestanding business network. This type of network, with its absence of preexisting noncommercial social ties, illustrates that the information channels necessary to support complex trade can be constructed outside the clan or close-knit community model.⁴²

C. COMBINING LEGAL AND EXTRALEGAL OR FORMAL AND INFORMAL ORDERING

Contract theorists have studied how networks of firms engaged in collaborative projects to innovate govern their contracts through extralegal private ordering.⁴³ Some scholars have begun to describe

technologically based information intermediary system to enforce reputation bonds. *See id.* at 140 (explaining how the diamond industry is in transition from a homogeneous regime to “one that increasingly relies increasingly on information technology”).

⁴⁰ *See* Powell, *supra* note 30, at 300, 326–27 (finding that many examples “suggest that certain social contexts encourage cooperation and solidarity, or a sense of generalized reciprocity”). The case studies exemplifying network-based exchange in Powell’s paper reveal a high incidence of geographically concentrated production. *Id.* at 308–11.

⁴¹ *See* discussion *infra* Sections II.C.–D.

⁴² *See infra* Section II.D.

⁴³ *See, e.g.*, Gillian K. Hadfield & Iva Bozovic, *Scaffolding: Using Formal Contracts to Support Informal Relations in Support of Innovation*, 2016 WIS. L. REV. 981, 986–88, 996–97 (describing how innovation-oriented companies rely on formal contracts to maintain and clarify their relationships); Jennejohn, *The Private Order of Innovation Networks*, *supra* note 13, at 281–82 (discussing collaborative networks among high-technology firms); Lisa Bernstein, *Beyond Relational Contracts: Social Capital and Network Governance in Procurement Contracts*, 7 J. LEGAL ANALYSIS 561, 599–610 (2015) [hereinafter Bernstein, *Beyond Relational Contracts*] (discussing the importance of informal social capital and ties between firms within a network); Ronald J. Gilson, Charles F. Sabel & Robert E. Scott, *Braiding: The Interaction of Formal and Informal Contracting in Theory, Practice, and*

contracts supported by business networks.⁴⁴ But given the difficulty of ascertaining behavior and ascribing fault, and the apparent lack of barriers to exiting the network in favor of other opportunities, skepticism remains about the ability of loose-knit business network to support robust reputation-based governance of complex trading relationships.⁴⁵ Leading explanations of how parties that are not members of clans or close-knit communities govern noncontractible exchange point to combining elements of formal contracting with extralegal private ordering within a bilateral relationship with repeat play.⁴⁶

Doctrine, 110 COLUM. L. REV. 1377, 1379–81 (2010) [hereinafter Gilson et al., *Braiding*] (describing a new blending of formal and informal agreements known as “braiding”); Gilson et al., *Contracting for Innovation*, *supra* note 5, at 458–59, 502 (describing three examples of blending formal and informal agreements for innovation and the ultimate need for additional data).

⁴⁴ See Bernstein, *Beyond Relational Contracts*, *supra* note 43, at 599–610 (analyzing business networks in variety of contexts); David T. Robinson & Toby E. Stuart, *Network Effects in the Governance of Strategic Alliances*, 23 J.L. ECON. & ORG. 242, 243 (2006) (studying a sample population of “3800 alliance transactions between pharmaceutical firms and biotechnology research firms”).

⁴⁵ See Gilson et al., *Contracting for Innovation*, *supra* note 5, at 479 n.123 (“While we recognize the role of reputation as one element of switching costs, we remain skeptical about the extent to which reputation can carry the weight Robinson and Stuart assign to it. Most important, it is extremely difficult for third parties, however well-connected, to observe the conduct of the parties. Suppose a venture fails. Given the very low likelihood of finding a successful drug, the most reasonable inference is that the outcome is the result of bad luck, not poor skills or bad faith. From this perspective, reputation is hard to gain, but it is also hard to lose. Both require repetitive results to separate the signal from the noise.”); Matthew C. Jennejohn, *Contract Adjudication in a Collaborative Economy*, 5 VA. L. & BUS. REV. 173, 178 (2010) (noting that firms engage in collaborative partnerships to innovate in transnational, “heterogeneous markets” in which “the preconditions for informal governance obtain only with difficulty”). The firms studied by Jennejohn are not, however, engaged in solely extralegal exchange. They use international commercial arbitration, which today is the most reliably judicially enforceable method of cross-border dispute resolution owing to the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards. See *id.* (finding contracts between collaborators use arbitration at a higher rate than other contracts); see also Convention on the Recognition and Enforcement of Foreign Arbitral Awards, June 10, 1958, 84 Stat. 692, 330 U.N.T.S. 3. Unless there are barriers to pursuing judicial enforcement of international arbitration awards or the form of arbitration used is atypical as in reinsurance, see *infra* Section III.B.4., in the post-New York Convention age, exchange that provides for international arbitration falls squarely in the category of formal, court-backed contracting.

⁴⁶ Gilson, Sabel, and Scott have made important contributions to understanding how parties might combine formal and informal modes of transacting within a bilateral relationship. See generally Gilson et al., *Braiding*, *supra* note 43 (concluding, in part, that

Parties might use tightly circumscribed, judicially enforceable obligations to create opportunities to cultivate trust. That grounding could enable the parties to bootstrap a contracting relationship that involves greater commitments that are not judicially enforceable.⁴⁷ This is a variety of court-backed relational contracting, because throughout the relationship, judicial enforcement is available to protect the parties from the costliest forms of moral hazard.

Alternatively, even parties having common knowledge that neither party wields a credible threat of suing might rely on highly specified contracts and legal advice to structure and manage their relationship, but also rely on reputation in a small group of loosely affiliated traders to bond their obligations.⁴⁸ Formal legal rules might coordinate expectations about what behaviors constitute performance and breach when insufficient customary norms exist to classify behavior because of the high uncertainty surrounding an innovative endeavor.⁴⁹

formal governance complements rather than eliminates informal mechanisms of contract enforcement); Gilson et al., *Contracting for Innovation*, *supra* note 5, at 475 (positing bilateral “co-design” relationships necessarily rely on informal arrangements beyond their express contractual terms). Jennejohn similarly answers the question of “how can private ordering occur in heterogeneous, dispersed networks” by focusing on mechanisms the parties develop to govern their bilateral relationships. *See generally* Jennejohn, *The Private Order of Innovation Networks*, *supra* note 13 (introducing the idea of multivalent contracting to explain governance mechanisms). The account given here does not deny that Gilson, Sabel, and Scott’s theories might account for how parties support exchange in some cases; rather, it shows that another option—the cultivated network—is available, even outside the context of the close-knit community, when courts are unavailable or unsuitable for buttressing extralegal cooperation.

⁴⁷ *See* Gilson et al., *Braiding*, *supra* note 43, at 1401 (arguing that low-powered sanctions do not crowd out informal mechanisms, while the threat of large damages might). These greater commitments will also be informal in the second sense that they will not be specified in advance but rather will be developed over the course of the parties’ collaboration. *See id.* at 1403 (explaining that ongoing cooperation between parties allows them to establish greater commitments over time).

⁴⁸ *See* Hadfield & Bozovic, *supra* note 43, at 987–88, 996–1001 (detailing interview responses from various businesses indicating those businesses use formal contracts but informal enforcement mechanisms). As to why they did not view litigation as a serious threat or avenue of recourse, the parties cited its cost in time and money, the expected insufficiency of damages and low probability of collecting them, the likelihood a court would decide incorrectly, and reputational harm. *Id.* at 998.

⁴⁹ *See id.* at 988, 1010–11 (describing the critical “guardrail” or “scaffolding” role formal contracts can play in innovation-oriented relationships where the meaning of breach can be ambiguous).

D. FREESTANDING BUSINESS NETWORKS

A few studies by legal scholars have described informal contracts buttressed by neither courts nor clans but rather by what will here be called freestanding business networks. The ties among transactors in freestanding networks differ from the ties among members of ethnic groups or close-knit, geographically concentrated communities in that they are largely business or economic ties and are not embedded in social structures that were preexisting or primarily served other ends. Robinson and Stuart find this kind of network structure supporting informal contracting in strategic alliances between biotechnology firms and pharmaceutical companies.⁵⁰ The relevant network arises out of connections from previous transactions between firms. Bernstein finds a business network performing the same function among midwestern United States original equipment manufacturers and their suppliers.⁵¹ The next Part describes another instance of freestanding business networks: the reinsurance trade. The story of reinsurance begins with the high counterparty risk faced by reinsurance traders and their imperative to nevertheless transact across great distances under conditions that bear little resemblance to the clan or close-knit community as conventionally understood.

III. THE REINSURANCE TRADE

Reinsurance transactions during the period studied were quite informal, resembling in key respects the informality of clan-based trade described in the private ordering literature.⁵² Substantial

⁵⁰ See Robinson & Stuart, *supra* note 44, at 243 (“[B]etter networked firms rely less on explicit control mechanisms such as equity ownership and more on implicit, network-based control, all else equal.”).

⁵¹ See Bernstein, *Beyond Relational Contracts*, *supra* note 43, at 562 (“Large mid-western original equipment manufacturers (OEMS) have devised contractual structures to govern their relationships with suppliers that, while nominally contractual in the traditional sense, are better understood as private order institutions.”).

⁵² Trade can be modeled as varying in formality along two dimensions: (1) how completely parties specify their obligations, and (2) the extent to which they delegate authority to an adjudicator to enforce their agreements. See Macaulay, *supra* note 22, at 56 (1963) (explaining that contracts involve both “rational planning of the transaction and the “existence or use of actual or potential legal sanctions to induce performance of the exchange or to compensate for non-performance”). Exchange involving both low specification of obligations *and* little reliance on a third-party adjudicator is clan-like. Clan-like trade includes Hokkein Chinese

ambiguity surrounded the scope of obligations, and the highly equitable form of arbitration to which parties committed *ex ante* (but rarely used) bears little resemblance to conventional notions of formalistic, textualist adjudication of commercial disputes.⁵³ Additionally, reinsurance traders did not establish formal private legal systems like those described in the private ordering literature.⁵⁴ Yet, though it employed clan-like trading practices, the reinsurance industry was not ethnically homogeneous and far from

middlemen, Maghribi traders, and the Mafia. *See generally* LANDA, *supra* note 34 (explaining the clan-like trade structure of the Hokkien Chinese middlemen); Bernstein, *Contract Governance*, *supra* note 2 (explaining the clan-like trade structure of the Maghribi traders); Greif, *Contract Enforceability*, *supra* note 38 (explaining further the structure of the Maghribi traders); Janet Landa, *A Theory of the Ethnically Homogeneous Middleman Group: An Institutional Alternative to Contract Law*, 10 J. LEGAL STUD. 349 (1981) (explaining the clan-like trade structure of the Italian Mafia). Legal or quasi-legal ordering might combine low specification with state-backed enforcement or high specification, including the use of formal legal categories to coordinate expectations, without state-backed enforcement. *See, e.g.*, Hadfield & Bozovic, *supra* note 43, at 986–88, 996–97 (describing the latter type of transaction). While a classic view would categorize the former as private ordering in the shadow of the law and the latter order without law, see BARAK D. RICHMAN, STATELESS COMMERCE: THE DIAMOND NETWORK AND THE PERSISTENCE OF RELATIONAL EXCHANGE 3–10 (2017), that view focuses primarily on the means of enforcement to determine whether ordering is legal or extralegal. But the account of Hadfield and Bozovic suggests that law can play an important role in private ordering apart from allowing coercive enforcement. They demonstrate the role legal rules can play in coordinating expectations about acceptable and unacceptable conduct, even when legal enforcement is unavailable. *See, e.g.*, Hadfield & Bozovic, *supra* note 43, at 997 (“[Contracts] are frequently consulted by . . . businesses to understand their own [legal] obligations and those of their partners. They are expressly brought out to help settle disputes that arise during the course of the relationship.”).

⁵³ As compared to the manufacturing industry transactions that Macaulay studied, reinsurance agreements are more extralegal, both in form—they are less specified and provide for the peculiar form of arbitration described here—and because the secrecy interest made resort to courts unlikely. This is surprising because reinsurance agreements are of a type that Macaulay expects to give rise to more formal contract. *See* Macaulay, *supra* note 22, at 66–67 (outlining the situations in which formalized contracting will more likely occur). Unlike Macaulay’s manufacturing production agreements, which left little room for disagreement about what was agreed, ample space for disagreement remained in reinsurance agreements. *See id.* at 63–65 (explaining that in manufacturing production agreements, “we are not dealing with questions of taste or judgment where people can differ in good faith”).

⁵⁴ As explained further in Part III below, information about traders’ behavior was spread informally by word of mouth. Arbitrations were confidential, and there was no formal mechanism for reporting, excluding, or otherwise penalizing a party that failed to pay an arbitration award.

being a close-knit community as conventionally understood; rather, the network was transnational and commercial from its inception.⁵⁵

Reinsurance is insurance of insurance policies. It is a contractual arrangement between a reinsurer and a professional insurer, also referred to as the ceding company, cedent, or primary insurer.⁵⁶ In exchange for premium payments, the reinsurer promises to reimburse the cedent—subject to specified conditions—for all or, more commonly, part of losses the insurer pays under a single insurance policy or a category of policies.⁵⁷ This study focuses on treaty reinsurance, which is reinsurance of a defined set of policies, including policies not yet written.⁵⁸ A treaty obliges a primary insurer to cede, and a reinsurer to accept, coverage of either a percentage of, or the excess over, a threshold amount of each loss covered by the cedent within a specified category.⁵⁹ The category may be defined by hazard, location, other descriptors, or some

⁵⁵ See *infra* Section III.A. Sociologists recognize that the importance of geographic concentration for private ordering depends on the existence of other ties, most notably ethnic, and on communications and transport technology. See MARK GRANOVETTER, *SOCIETY AND ECONOMY: FRAMEWORKS AND PRINCIPLES* 34 (2017) (overviewing the interception of sociology and economic practices). While improved communication and transportation infrastructure reduce the barriers to maintaining private order networks, geographic distance has been found to impede high-stakes cooperation even when communication and transport are inexpensive. See *id.* at 31–35 (“[I]ncreasing urbanization . . . weakens the informal control system . . . and expands the domain of law. [E]nforcement of norms is more effective the more cohesive or close-knit the network.”); Barry Wellman, *The Community Question: The Intimate Networks of East Yorkers*, 84 *AM. J. SOCIO.* 1201, 1222 (1979) (“Indeed, the car, the telephone, and the airplane help maintain many kinship ties. Yet space is still a constraint; there are distances for each tie at which the cost of keeping in contact becomes too great for it to remain viable.”). Bernstein shows that network-based informal economic exchange can be conducted over very long distances when there are strong ties between important nodes and those nodes are part of densely connected networks in each location. See *generally* Bernstein, *Contract Governance*, *supra* note 2, at 1009 (“The analysis reveals that a particular type of bridge-and-cluster configuration of ties among traders and trading centers—known as a ‘small-world network’—can have strong reputation-based contract enforcement properties that make it possible support trade over long distances, even in environments of noisy information.”).

⁵⁶ See EDWIN W. KOPF, *NOTES ON THE ORIGIN AND DEVELOPMENT OF REINSURANCE* 23 (1929) (defining reinsurance).

⁵⁷ See *id.* (“In the most widely accepted sense, reinsurance is understood to be that practice where an original insurer, for a definite premium, contracts with another insurer (or insurers) to carry a part or the whole of a risk assumed by the original insurer.”).

⁵⁸ See H. ERNEST FEER, *APPROACH TO REINSURANCE* 26 (1951) [hereinafter FEER, *APPROACH TO REINSURANCE*] (outlining the standard language and benefits of treaty reinsurance policies).

⁵⁹ See *id.* (defining obligatory treaties).

combination of characteristics.⁶⁰ An example is all fire insurance policies written on property in Boston for a one-year term.

The alternative to treaty reinsurance is facultative reinsurance, which is reinsurance of an individual policy, today typically covering a large risk such as a dangerous voyage, a concert, or a high-value, high-risk property.⁶¹ Treaty reinsurance has historically been far more prevalent than facultative reinsurance and remains so today, for reasons that are explained below.⁶² This study focuses on reinsurance treaties between dedicated reinsurers—that is, firms that dealt exclusively or primarily in reinsurance—and primary insurers, because from the late nineteenth century to the late twentieth century dedicated reinsurers dominated the market.⁶³

A. INDUSTRY OVERVIEW

1. The First 130 Years. During the industry's early decades, fraud and moral hazard were rampant. German novelist Thomas Mann's Nobel Prize-winning novel *Buddenbrooks*, published in 1901, relays a tale of reinsurance fraud.⁶⁴ Upon learning of a fire in a town in which his firm has issued fire insurance policies, a character immediately reinsures those policies without disclosing the fire to

⁶⁰ See *id.* (detailing categories covered by the cedent).

⁶¹ See KOPF, *supra* note 56, at 28, 42–43, 86 (explaining the facets of facultative reinsurance).

⁶² See *id.* (explaining the facultative insurance's history); see also H. ERNEST FEER, THE SYSTEM OF TREATY REINSURANCE IN FIRE INSURANCE 21 (1926) [hereinafter FEER, TREATY REINSURANCE IN FIRE INSURANCE] (explaining the difficulties with the price of reinsurance).

⁶³ Companies dedicated exclusively to reinsurance developed largely because primary insurers did not want to share their customer lists, underwriting information, and other commercially sensitive information with competitors. See, e.g., SWISS RE, A HISTORY OF INSURANCE 23 (2017) (describing reinsurance journey to dominance during the nineteenth century); KENNETH R. THOMPSON & KENNETH RALPH, REINSURANCE; A DIGEST ON SOME ASPECTS OF THE PRACTICE OF REINSURANCE AND EXCESS INSURANCE AND A LEGAL TREATISE ON THE SUBJECT 15, 158 (1950) (describing how reinsurance prevented businesses from having to share their customer lists); KOPF, *supra* note 56, at 28, 30 (explaining treaty types and risk); FEER, TREATY REINSURANCE IN FIRE INSURANCE, *supra* note 62, at 19, 21 (detailing reinsurance interactions with customer information and underwriting).

⁶⁴ See generally THOMAS MANN, BUDDENBROOKS (1901) (chronicling the decline of a German merchant family and their involvement with reinsurance fraud). The Nobel Prize in Literature is usually conferred for an author's body of work, but the Academy specified that it awarded Mann the prize "principally for his great novel, *Buddenbrooks*." *Thomas Mann Facts*, NOBEL PRIZE: LITERATURE, <https://www.nobelprize.org/prizes/literature/1929/mann/facts/> (last visited Aug. 18, 2022).

the reinsurer.⁶⁵ Mann was an acquaintance of the chairman of Swiss Re, one of the first and largest reinsurance firms, and had undoubtedly heard the laments of reinsurance men.⁶⁶ Several of the oldest and largest reinsurance firms nearly went bankrupt during these early decades because of the kind of subterfuge depicted in *Buddenbrooks*.⁶⁷ Insurers were reinsuring most of their risk among themselves and passing the poorest risks on to dedicated reinsurers that could not accurately assess the quality of risks in the many far-flung places into which they were venturing.⁶⁸ Nevertheless, reinsurance firms viewed broad geographic risk spreading as imperative to their survival and therefore sought to overcome the transactional perils of doing business in distant markets.⁶⁹

The producer side of the reinsurance market was concentrated throughout the relevant period.⁷⁰ Historically, reinsurance provision, measured by premium value, has been concentrated in Germany and Switzerland.⁷¹ London became an important market in the middle of the twentieth century.⁷² On the other hand, throughout much of the relevant period, there were many primary insurance companies and there was more market entry and exit among primary insurers.⁷³ The network of reinsurance transacting

⁶⁵ See HAROLD JAMES, PETER BORSCHIED, DAVID GUERLI & TOBIAS STRAUMANN, THE VALUE OF RISK: SWISS RE AND THE HISTORY OF REINSURANCE 11 (2013) (“Thomas Mann’s famous novel of bourgeois decline, *Buddenbrooks*, includes . . . a scene in which Tony Buddenbrook’s apparently resepectable son-in-law . . . passes on to reinsurers policies after fires occurred.”).

⁶⁶ See *id.* at 11, 46, 260, 263 (noting Mann’s knowledge about reinsurance fraud and relationship with Charles Simon, chairman of Swiss Re’s board of directors).

⁶⁷ See *id.* at 11, 251 (explaining the risk of reinsurance fraud described in *Buddenbrooks*, and the moral hazard of insurers offloading risks onto reinsurers).

⁶⁸ See *id.* at 251–54 (detailing the problems with reinsurance and describing the writings of the editor of an 1880s insurance journal about the precarious state of the fledgling reinsurance industry).

⁶⁹ See *id.* at 253 (explaining that Swiss Re needed domestic and foreign contracts to absorb irregular major losses).

⁷⁰ See KOPF, *supra* note 56, at 45–46, 48, 51–57, 74 (calculating that there were around 152 reinsurance companies in 1927).

⁷¹ See *id.* at 33 (comparing German to Swiss reinsurance companies).

⁷² See MANAGING RISK IN REINSURANCE: FROM CITY FIRES TO GLOBAL WARMING app. 301 (Niels Viggo Haueter & Geoffrey Jones, eds., 2017) (accounting for specialist reinsurance companies by year of foundation and country).

⁷³ See, e.g., Robin Pearson, *The Birth Pains of a Global Reinsurer: Swiss Re of Zürich, 1854–79* (pt. 1), 8 FIN. HIST. REV. 27, 41–44 (2001) [hereinafter Pearson, *Birth Pains*] (detailing Swiss Re’s and the reinsurance market’s problems, including primary insurers moving “more

parties was, therefore, large, heterogeneous, and geographically dispersed.

The first dedicated reinsurance firms were created in Germany, Austria-Hungary, and Switzerland in the 1850s and 1860s.⁷⁴ By 1873, there were twenty-five dedicated reinsurance firms on the European continent;⁷⁵ by 1900, around thirty-seven dedicated reinsurance firms existed across Germany, Austria-Hungary, and Switzerland; and by 1925, over 150 firms existed worldwide, most of them in Scandinavia and the United States.⁷⁶

Since this early growth, the structure of the reinsurance side of the industry has been remarkably stable.⁷⁷ A few German and Swiss reinsurance firms have held a plurality or majority of global market share for the industry's entire history, save temporary wartime disruptions to the German firms.⁷⁸ The two largest reinsurance firms at the end of the nineteenth century, Munich Re and Swiss Re, retained their market positions at the beginning of the twenty-first century.⁷⁹

While London, and especially Lloyd's of London, is famous for its historical role in the development of insurance, London firms were not major players in reinsurance until after World War I, and they never—during the period studied—played as large a role in this sector of the insurance market as the German and Swiss reinsurance firms.⁸⁰ London increased its market share from near

deeply into reinsurance markets”).

⁷⁴ See JAMES ET AL., *supra* note 65, at 252 (discussing the origins of reinsurance firms).

⁷⁵ See *id.* (comparing the quantity of reinsurance firms in Germany, Austria-Hungary, and Switzerland prior to 1870 and after 1873).

⁷⁶ See *id.* at 154 (detailing different countries' reinsurance company growth).

⁷⁷ See Niels Viggo Haueter & Geoffrey Jones, *Risk and Reinsurance*, in MANAGING RISK IN REINSURANCE: FROM CITY FIRES TO GLOBAL WARMING, *supra* note 72, at 1, 12 (noting the lack of changing reinsurance powers in the industry).

⁷⁸ See *id.* at 12–13, 16 (explaining how Swiss and German reinsurance came to dominate the industry).

⁷⁹ See PAULA JARZABKOWSKI, REBECCA BEDNAREK & PAUL SEE, MAKING A MARKET FOR ACTS OF GOD: THE PRACTICE OF RISK TRADING IN THE GLOBAL REINSURANCE INDUSTRY 12 (2015) (describing Munich Re and Swiss Re's power, and that together the companies held thirty-three percent of premiums ceded in 2012).

⁸⁰ See Robin Pearson, *The Evolution of the Industry Structure*, in MANAGING RISK IN REINSURANCE: FROM CITY FIRES TO GLOBAL WARMING, *supra* note 72, at 70, 77 [hereinafter Pearson, *Industry Structure*] (discussing why England “failed to develop powerful professional reinsurance companies to rival those in Zurich and Munich”); see also JAMES ET AL., *supra* note 65, at 78 (describing the temporary dominance of London reinsurance firms and their subsequent decline after World War I); KOPF, *supra* note 56, at 38–39 (describing

zero during this time to around six percent in 2012.⁸¹ The English insurance industry had ample capital and sufficiently diverse opportunities to spread risk through coinsurance, rendering reinsurance marginal.⁸²

As for the insurance firms with which reinsurance companies did business, by 1900, there were nearly 1,300 insurance companies in twenty-six countries.⁸³ There are indications the number might have fallen over the subsequent decades due to consolidation.⁸⁴ To spread risk, the earliest reinsurance firms underwrote risks across thousands of locations, initially underwriting primarily fire insurance policies.⁸⁵ Reinsurance was therefore an early industry to globalize.⁸⁶ Munich Re was formed with an explicit goal of engaging in transnational business; before 1900, it had branch offices in Paris, Russia, London, and New York.⁸⁷ After a tumultuous start, Swiss Re shifted focus to wider geographic spread of risk; a key part of this strategy was to resist entering into contracts that required it to accept a block of risk tied to particular regions or countries.⁸⁸ In

how “friendly” Lloyd’s underwriters co-wrote large risks); *id.* at 42 (discussing the late development of reinsurance in England); *id.* at 45–75 (compiling statistics on premiums written and number of companies by country in 1927); R.N.M.M. Pearce, *British Re-Insurance Conditions Reviewed*, E. UNDERWRITER, Jan. 27, 1922, at 16 (reporting on a speech made by C.E. Golding given to British insurers before the Insurance Institute of Bristol exhorting them to do business with “this new branch” of the British insurance sector, newly created reinsurers).

⁸¹ See JARZABKOWSKI ET AL., *supra* note 79, at 12 (outlining the emergence of British reinsurance in the 1880s in comparison to its 6.6% global market share in 2012).

⁸² See JAMES ET AL., *supra* note 65, at 155, 172 (discussing the diversification of insured objects over time and the British co-insurance system). By another account, British insurers ceded a great deal of reinsurance to Continental reinsurance firms during this period. See NIELS VIGGO HAUETER, *A HISTORY OF UK INSURANCE* 9, 12 (Swiss Re Corp. Hist. ed., 2017) (citing the gradual decline in British reinsurance practice due to competitor reinsurance companies in Continental Europe).

⁸³ See, e.g., JAMES ET AL., *supra* note 65, at 155 (providing the number of insurance companies operating in the national market from 1800 to 1900).

⁸⁴ See Robin Pearson, *Mergers and Concentration in the UK Insurance Industry*, 72 ENTERPRISES ET HISTOIRE 7, 14 (2013) (listing examples of insurance company mergers between 1900 and 1920).

⁸⁵ See JAMES ET AL., *supra* note 65, at 44–45 (reviewing the impact of the fire insurance industry on underwriting and the development of reinsurance firms).

⁸⁶ See KOPF, *supra* note 56, at 31–32 (discussing the history of one of the first international reinsurance firms founded in 1880 by Carl von Thieme).

⁸⁷ See David M. Holland, *A Brief History of Reinsurance*, 65 REINSURANCE NEWS, Feb. 2009, at 19 (detailing the founding of Munich Re and its early international business).

⁸⁸ See Pearson, *Industry Structure*, *supra* note 80, at 73 (noting that only twelve percent of

the first decade after its 1863 founding, Swiss Re reinsured risks in 20,000 locations, across Europe, North America, and Asia, transacting with around thirty direct insurers.⁸⁹ Reinsurers depended in most cases on the information provided by insurers about risks to be reinsured in distant locations.⁹⁰ By 1900, several Continental reinsurers were selling reinsurance in the United States through branch offices, subsidiaries, and directly from abroad.⁹¹ Reinsurance's transnational character and the dominance of Continental European firms, especially German and Swiss firms, continued through the late twentieth century, with temporary shifts away from German reinsurers to reinsurers based in neutral countries during the two world wars.⁹²

The German firms resumed their prominent positions following the world wars.⁹³ While wartime trade restrictions drove some business to firms in Scandinavia and Switzerland and occasioned the temporary development of greater reinsurance capacity within the United States until 1929, many business relationships continued throughout the period.⁹⁴

While reinsurers sometimes took majority or minority ownership of primary insurers, most transactions were not with related

Swiss Re's income came from Switzerland); *see also* Pearson, *Birth Pains*, *supra* note 73, at 43 (discussing Swiss Re's risk-spreading strategy).

⁸⁹ *See* Pearson, *Industry Structure*, *supra* note 80, at 73 (listing the continents where Swiss Re had agreements with twenty-six partner firms); *see also* Pearson, *Birth Pains*, *supra* note 73, at 43 (explaining that Swiss Re had its business spread across around 20,000 locations); JAMES ET AL., *supra* note 65, at 254 (describing the breadth of Swiss Re's risk).

⁹⁰ *See, e.g.*, JAMES ET AL., *supra* note 65, at 254 (discussing Swiss Re's reliance on insurers to understand the risks that it was reinsuring).

⁹¹ *See id.* at 260 (detailing the development of Continental reinsurance company involvement in the United States); *see also* KOPF, *supra* note 56, at 32, 72 (describing the establishment of German reinsurance business in New York, Wisconsin, and Massachusetts, as well as generally across the United States).

⁹² *See* Holland, *supra* note 87, at 22–23 (discussing the effect of the World War I on German reinsurance companies and the movement of business to companies not affected by trade restrictions).

⁹³ *See id.* at 24 (noting that the postwar period was profitable for the reinsurance industry and listing a timeline of twentieth century reinsurance firm developments).

⁹⁴ *See* Alexandros-Andreas Kyrtis, *The Rise and Decline of Treaty Reinsurance*, in *MANAGING RISK IN REINSURANCE* 144, 162 (Niels Viggo Haueter & Geoffrey Jones, eds. 2017) (explaining the brief period of influential American reinsurance firms before 1929); *see also* Holland, *supra* note 87, at 23 (describing the rise of reinsurance firms in neutral companies during the Second World War but also noting the continued existence of international business relations during the wars).

insurance firms. Reinsurers relied most heavily on vertical integration during and after World War I.⁹⁵ They turned to vertical integration as the war undermined other key mechanisms they used to support trade: trading networks were severely disrupted by wartime restrictions and the rise in protectionist policies, travel restrictions reduced monitoring capacity, and currency and economic volatility raised the risk of opportunism and moral hazard.⁹⁶

During the period of study, the market relied only partially and episodically on brokers, which did not become a fixture until well into the twentieth century.⁹⁷ There are some indications that brokers were important in the late eighteenth and very early nineteenth century in certain markets that continental reinsurers were newly entering.⁹⁸ There is scant evidence available, however, to determine how large a role they played during that time, and they are believed to have declined in importance thereafter.⁹⁹ The historical exceptions were members of Lloyd's of London when they began to participate in the market after 1920.¹⁰⁰ Brokers began to

⁹⁵ See JAMES ET AL., *supra* note 65, at 70–71, 78 (discussing the effects of World War I on reinsurance).

⁹⁶ Forty percent of reinsurance premium income between 1914 and 1938 was from related insurance firms. *Id.* at 79–80, 283. Munich Re relied relatively more on vertical integration than most firms, creating Allianz, a primary insurer that became one of its largest ceding companies. *See id.* at 11 (overviewing the business innovations of Munich Re and the creation of Allianz). Swiss Re did not begin taking equity stakes in primary insurers until the 1920s. *See id.* (“The ownership of direct insurance was not initiated by Swiss Re until the 1920s.”). On the policy and economic climates during and after the two world wars and their impact on the reinsurance trade, see Kyrtsis, *supra* note 94, at 145, 159–61, 168–69 (discussing in detail the shifts in the insurance industry during and after the world wars due to early twentieth century globalization and the “consecutive waves of economic instability after the First World War”).

⁹⁷ See JAMES ET AL., *supra* note 65, at 181–82 (describing the relationship between the reinsurance industry and brokerages).

⁹⁸ See Pearson, *Industry Structure*, *supra* note 80, at 75 (discussing the ability of reinsurance brokers in the late eighteenth and early nineteenth century to settle losses efficiently, set correct treaty limits, and provide clients with equitable risk distributions).

⁹⁹ See Pearson, *The Development of Reinsurance Markets During the Nineteenth Century*, 24 J. EUR. ECON. HIST. 557, 558 (1995) (reasoning that because the reinsurance market at the time was also occupied by non-specializing companies, it is difficult to measure the size, growth, and profitability of reinsurance companies); Pearson, *Industry Structure*, *supra* note 80, at 76 (“Over the following decades . . . reinsurance continued to suffer . . . as all kinds of non-insurance institutions plunged into the market.”).

¹⁰⁰ See JARZABKOWSKI ET AL., *supra* note 79, at 12 (“The Lloyd’s market is unique in being fully brokered, meaning that all business in Lloyd’s must be traded via a Lloyd’s accredited

become players to speak of in segments of the United States reinsurance market after 1950.¹⁰¹ For several decades thereafter, the market was divided into reinsurance firms that did and those that did not use brokers.¹⁰² The largest firms, the Continental firms, generally did not use brokers until around 1980.¹⁰³

2. *The Last Fifty Years.* Although some observers continue to characterize reinsurance as “a business built on personal relationships, goodwill and mutual trust,” others report a decline in long-term relationships and an increase in conflict between insurers and reinsurers.¹⁰⁴ Reinsurance relationships and transactions today undoubtedly look different than they did fifty or so years ago. In a relatively brief period beginning around the 1970s, reinsurance contracts got much longer. It is now not unusual for contracts to be between 100 and 200 pages long. This change in contract form might be expected to be accompanied by other changes in recourse to legal institutions suggesting a breakdown in trust or informality of relationship management, such as increased litigation. While industry commentators observe that litigation is more frequent,¹⁰⁵ preliminary statistics suggest that while, at least in the United States, the incidence of litigation seems to have increased in

broker.”).

¹⁰¹ Interview (Aug. 15, 2019).

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ Robin Pearson, *Normative Practices, Narrative Fallacies? International Reinsurance and its History*, BUS. HIST. 1, 2 (2020) [hereinafter Pearson, *Normative Practices*] (citing several sources and quoting one commentator’s assessment that “the traditional reinsurance market characterized by personal relationships, emotions and social understanding is dead and will not return”).

¹⁰⁵ *See id.* at 2 (“In the 1990s legal scholars pointed to the huge rise in litigation, the demise of arbitration, and the end of the principle of ‘utmost good faith’ in reinsurance contracts.”).

absolute number of cases, it has not increased relative to the size of the market.¹⁰⁶

Industry participants also report a rise in arbitration.¹⁰⁷ The increase in the number of disputes has led to increased formalization of reinsurance arbitration.¹⁰⁸ Reinsurance arbitrators are professionalizing, and a trade association they have formed has codified traditional arbitration procedures into rules, though adoption of those rules in reinsurance contracts has been slow.¹⁰⁹

B. EXTRALEGALITY AND INFORMALITY IN REINSURANCE

Reinsurance transactions were for most of the industry's history—from its inception in the mid-nineteenth century to the second half of the twentieth century—extralegal and informal in several respects: contracts were highly incomplete; they used a form of dispute resolution that was unpredictable; and they included vague norms and implicit obligations of reciprocity.¹¹⁰ Agreements were typically written for a renewable one-year term, but it was common for parties to renew, sometimes with amended terms, for decades.

¹⁰⁶ A preliminary analysis of lawsuits per billion dollars of premiums written is on file with the Author. A case count was conducted by searching for decisions including the word “reinsurance” in all United States courts on Lexis Advance and refining the results using the terms “reinsurer or retrocessionaire or cedent or reinsured” to target cases between primary insurers and reinsurers. The facts or the overview of each case were then reviewed to make sure that they were cases between insurers and reinsurers. The value of reinsurance premiums written was hand-collected from print annual reports of *The National Underwriter*, an industry trade publication and from S&P, *Global Reinsurance Highlights* 72–83 (2018).

¹⁰⁷ See, e.g., Michael J. Brady & Lawrence O. Monin, *Reinsurance Disputes: Death of the Handshake*, 61 DEF. COUNS. J. 529, 529 (1994) (“The number of reinsurance disputes has grown at an exponential rate, and more and more they are being resolved formally by litigation or arbitration.”). Most adjudicated reinsurance disputes are heard in arbitration. See Robert F. Salm, *Reinsurance Contract Wording*, in REINSURANCE 79, 88 (1980) (“[I]f any dispute shall arise between the Company and the Reinsurers . . . such dispute, upon written request of either party, shall be submitted to three arbitrators.”).

¹⁰⁸ See Larry Schiffer, *Reinsurance Arbitration—A Primer*, INT’L RISK MGMT INST.: EXPERT COMMENT. (Dec. 2021), <https://www.irmi.com/articles/expert-commentary/reinsurance-arbitration-a-primer> (correlating the rise in reinsurance arbitrations and the formalization of arbitration procedures).

¹⁰⁹ See *id.* (discussing the formalization of reinsurance arbitration).

¹¹⁰ See e.g., Steven W. Thomas, *Utmost Good Faith in Reinsurance: A Tradition in Need of Adjustment*, 41 DUKE L.J. 1548, 1560–61 (1992) (describing the historically informal nature of reinsurance transactions).

1. *Incomplete Contracts.* Written agreements were brief, often perfunctory, sometimes even scribbled on scrap paper.¹¹¹ Parties often waited long stretches after entering into an agreement before preparing a contract with detailed terms. For example, the first known reinsurance treaty involving an English company was concluded orally in 1824 with a French company and confirmed by an exchange of letters. The parties agreed on the class of risk to be covered, the premium, and the coverage proportion. The contracting parties each pledged their good faith; they did not prepare a formal contract document. The agreement was continuously renewed for at least a century. The minutes of the board meeting at which the French company approved the agreement capture the trust-based nature of the relationship: “The Board consider that the agreement between the two companies is sufficiently established by their correspondence. Besides, the good faith of the London company does not permit of the anticipation of any infringement on its part of the agreement concluded between the two parties.”¹¹² A treaty was eventually prepared forty years later when one of the two companies was acquired.¹¹³

As late as the 1970s, contracts were concluded by a “slip” document of a few pages, which often left open terms marked “to be agreed” or entirely unspecified.¹¹⁴ Companies agreed initially to the essential terms.¹¹⁵ Those included at minimum the premium to be

¹¹¹ See Salm, *supra* note 107, at 79 (“The long and well established tradition that reinsurance transactions are a matter of ‘utmost good faith’ between the parties has had a predictable effect on the preparation of reinsurance contracts The typical reinsurance contract is a relatively short, concise document, noticeably lacking in the legalisms so characteristic of other types of contracts. This underlying assumption of utmost good faith allows the companies to draft a document that assumes both parties are so knowledgeable on the subject matter to be dealt with and possess such a degree of sophistication as to preclude the necessity for long, expository declarations of intent and implementation.”).

¹¹² C. E. GOLDING, *STERLING OFFS., LTD., A HISTORY OF REINSURANCE, WITH SIDELIGHTS ON INSURANCE: OFFERED AS A MEMENTO OF FIFTY YEARS’ SERVICE IN THE REINSURANCE WORLD* 47 (1927) (translating La National board minutes from French).

¹¹³ See *id.* at 47–48 (indicating that no written record of this treaty existed prior to 1864, nearly forty years later); see KOPF, *supra* note 56, at 38 (stating that this 1824 treaty remained in force).

¹¹⁴ See Brady & Monin, *supra* note 107, at 529 (discussing the informal nature of contracts, even well into the twentieth century).

¹¹⁵ See JOHANNES BÄHR & CHRISTOPHER KOPFER, *MUNICH RE: THE COMPANY HISTORY 1880–1980*, at 369 (Patricia Casey Sutcliffe trans. 2016) (describing Munich Re’s traditional assessment and assumption of cedent risk); KOPF, *supra* note 56, at 38 (demonstrating that the parties agreed to the initial terms via an exchange of letters).

paid to the reinsurer and the commission to be allowed to the cedent;¹¹⁶ the class of risk covered; the percentage of each loss to be covered (if the treaty was for proportional reinsurance) or the threshold amount above which any loss would be covered (if excess-of-loss reinsurance); liability limits; the inception and end dates; and the minimum proportion of coverage the cedent must retain on its own account (known as the retention requirement).¹¹⁷ The expressly agreed upon terms might also include reference to exclusions, warranties, or an arbitration agreement. Reference to these other terms, when present, would often be perfunctory. For example, the slip might simply say “arbitration clause” without including the wording of an arbitration agreement.¹¹⁸ Sometimes additional or more elaborated terms would be set out later; other times the parties never expressly agreed on a fully specified contract.¹¹⁹ This practice continued to be widespread enough in the 1990s that the National Association of Insurance Commissioners, a

¹¹⁶ Premiums are typically expressed as a percentage of the premium of each covered primary policy, less a “ceding commission” allowed to the cedent to cover its business acquisition, underwriting, and claims processing expenses. See THOMPSON & RALPH, *supra* note 63, at 60 (explaining the calculation of premiums). For instance, the premium might be forty percent less fifteen percent ceding commission.

¹¹⁷ See *id.* at 62–67 (discussing the typical contents of a reinsurance agreement).

¹¹⁸ See *Cologne Life Reins. Co. v. Zurich Reinsurance Inc.*, 730 N.Y.S.2d 61, 63–64 (N.Y. App. Div. 2001) (describing a facultative placement slip that refers to arbitration but lacks language of an arbitration agreement); *Sumitomo Marine & Fire Ins. Co. v. Cologne Reinsurance Co.*, 552 N.E.2d 139, 140–41 (N.Y. 1990) (describing the process of concluding a facultative policy: a telex disclosed the risk and term; legally binding acceptances were telexed; communications did not include “utmost good faith,” “follow the fortunes,” or policy exclusions, which were included in the formal coverage certificates issued months later); *Am. Eagle Fire Ins. Co. v. Eagle Star Ins. Co.*, 216 F.2d 176, 177 (9th Cir. 1954) (describing a facultative policy in which the binder included warranties). While the trade literature refers to binders and placement slips as containing only “rudimentary details” or “the essential economic terms,” I have not found a more detailed description of the of terms typically included in treaty binders, nor have I found a court decision discussing treaty binder terms. The cases cited above discuss facultative reinsurance binders and are presented here to indicate the kinds of terms that might have been included in treaty binders. See also Interview (Sept. 13, 2019) (“You would try to nail down the main things: scope of coverage, term, pricing. Sometimes exclusions would be important depending on what you’re covering, for example, war or terrorism. Retention is very important, has to be nailed down at beginning, also the commission and if it adjusts, how it adjusts.”).

¹¹⁹ See Salm, *supra* note 107, at 79 (explaining that tradition dictates that reinsurance transactions rely on good faith and do not require explicit legal terms)

body of state regulators, passed a rule requiring reinsurance contracts to be finalized within nine months of their inception.¹²⁰

The binder or slip confirming the agreement would not typically include the utmost good faith or follow the fortunes obligations of an arbitration agreement.¹²¹ Other terms that the parties might have included to address foreseeable circumstances (but typically did not include) can be ascertained from old and recent reinsurance treaties.¹²² They include the reinsurer's right to inspect and audit the cedent's books, the cedent's obligation to send the reinsurer periodic accounts of policies written and losses incurred (called *bordereaux*), definitions of what constitutes a loss occurrence,¹²³ exclusions of certain kinds of risk, termination clauses, and the cedent's warranties regarding maintenance of other reinsurance coverage or the details of the risk to be covered.¹²⁴

¹²⁰ See NAT'L ASS'N OF INS. COMM'RS, ACCOUNTING PRACTICES AND PROCEDURES MANUAL 62–67 (1999) (“[I]f an agreement entered into, renewed or amended on or after January 1, 1994 has not been finalized . . . within nine months after the commencement of the policy period covered by the agreement, then the agreement is presumed to be retroactive.”).

¹²¹ Interview (Aug. 14, 2019). This interview was with someone who started in the industry in the 1980s, and this person explained that even at that late year, it was common for years to go by after a reinsurance treaty was bound before the parties prepared a contract setting out terms. *Id.*

¹²² See Salm, *supra* note 107, at 79 (explaining that most reinsurance contracts do not typically outline all terms especially regarding industry accepted terminology).

¹²³ An example is whether a series of storms that hit within the course of a week constitute one occurrence or several. Recent, more specified contracts set precise limits; for instance, one occurrence of storm damage will be defined as damage occurring within a seventy-two-hour period. As late as 1980, it was typical to leave the meaning of one event intentionally vague. As the first reinsurance textbook explains:

Such an approach eliminates the need for lengthy discussions of how the actual occurrence date is to be determined, a determination which may be impossible to spell out precisely and comprehensively in the contract because of the variable circumstances of each case. To rely simply on the term “arising out of one event” assumes that the parties will be able to reach mutual agreement, according to the customs of the business and depending on the circumstances applicable to each situation [T]he compromise approach is taken: referring to “one event” in the contract, and relying on the good faith of the parties to agree on an equitable solution.

Id. at 102; see also Agreement Between Casualty Reins. Assoc. & Insurance Co. N. Am. (1951), Case 2:05-cv-02811-GEKP, Document 1-1, at 5 (Exhibit A), Filed June. 13, 2005 (on file with author) (defining “accident” as “accident or occurrence, or series of accidents or occurrences arising out of one event” and not defining “one event”).

¹²⁴ See Salm, *supra* note 107, at 80–116 (defining sixteen terms and clauses commonly used in reinsurance contracts).

2. *Vague Norms.* Reinsurance contracts are also characterized by indeterminate norms that leave significant room for disagreement between the parties as to what is required of each.¹²⁵ The two central governing norms of reinsurance contracts are the duty of utmost good faith and the obligation of the reinsurer to follow the fortunes of the insurer.¹²⁶

What these duties entailed precisely is difficult to ascertain. They are commonly described as giving rise to obligations of confidence and trust like those present in a partnership or a similar fiduciary relationship.¹²⁷ As the first reinsurance textbook explains, “The slightest suspicion that either the reinsurer or the client company is not treating the agreement as an honorable engagement puts the entire relationship in jeopardy and may very well lead to cancellation of the contract.”¹²⁸

The most easily grasped component of the obligation of utmost good faith is the cedent’s duty to disclose all material information.¹²⁹ *Caveat emptor* does not apply.¹³⁰ The risk of nondisclosure falls squarely on the cedent’s shoulders, and the reinsurer is entitled to rely on the information provided by the ceding company.¹³¹ The utmost good faith disclosure requirement implies that “a person’s

¹²⁵ See *id.* at 79 (providing an overview of the norms in the reinsurance contract drafting process).

¹²⁶ See Gerard V. Mantese & Mark C. Rossman, *Reinsurance Contracts and the Role of Fiduciary Duty*, 86 MICH. BAR J. 18, 19–20 (2007) (describing the duty of utmost good faith and the follow the fortune provision). Even outside the reinsurance context, utmost good faith in insurance generally is understood as being a substantially different duty from good faith. What utmost good faith requires in reinsurance specifically, given the different character of the parties’ relationship as compared to other insurance contract, is less ascertainable because there is not a body of published case law to elaborate the principle. See Steven W. Thomas, *Utmost Good Faith in Reinsurance: A Tradition in Need of Adjustment*, 41 DUKE L.J. 1548, 1597 (1991) (“[C]haracterizing the reinsurance relationship as one of utmost good faith is no longer an accurate description . . . [because t]he sparseness of caselaw and precedent have placed courts in the unenviable position of developing a coherent jurisprudence.”).

¹²⁷ See Henry T. Kramer, *The Nature of Reinsurance*, in REINSURANCE 13 (1980) (“The quota-share form of reinsurance is frequently indistinguishable from a partnership, but this is the result of terms and conditions carefully chosen to have that effect.”).

¹²⁸ Salm, *supra* note 107, at 100.

¹²⁹ See Kramer, *supra* note 127, at 9 (“A basic duty of the reinsured is to disclose to the reinsurer all known information touching on the risk of loss.”).

¹³⁰ See *id.* (“As used in reinsurance, utmost good faith means that the maxim of *caveat emptor* has no application to either party in the relationship.”).

¹³¹ See *id.* (discussing the reinsurer’s rights against a non-disclosing cedent).

word is good . . . and it will be relied upon. In giving it, the person is necessarily assumed to be authorized to do so and to be sufficiently knowledgeable and skilled to preclude its groundless disavowal later.”¹³² Under reinsurance treaties, disclosure requirements are broad.¹³³ In addition to information about the risk underwritten, treaty reinsurance requires disclosure of other reinsurance purchased for the same risks, underwriting and claims handling practices, and all relevant information about past loss experience.¹³⁴

Other aspects of the utmost good faith requirement are more elusive. Consider the following description:

In its simplest terms, the reinsurer intends to assume risk for the purpose of making a profit, and the ceding insurer intends to be indemnified in respect of loss when it happens. Neither party may mislead or balk the other in the legitimate realization of these goals, notwithstanding the goals are mutually exclusive.¹³⁵

Despite the breezy dismissal of the incompatibility of the parties’ respective goals of making a profit and being indemnified, this seems to be the crux of the problem. But another trader described the relationship similarly:

In my mind there’s a material difference between partners and counterparties. Counterparty even sounds like you have different interests. Good faith falls toward the partnership concept. Reinsurance deals in years past were largely built on the concept of partnership, not counterparty. When attorneys parse it, they could make it sound different, but the concept is working together to a common end so that we can all make money. It seems to me that the idea of being counterparties gives the impression of more, “I’m in it

¹³² *Id.* at 11.

¹³³ *See id.* at 10 (“Disclosure for a treaty becomes a broader duty, in respect to terms of the proposed treaty, its interplay with other reinsurances and the nature of primary policies to be produced, and its probable use in the future, as well as all pertinent information about past loss experience to which the treaty as a whole is likely to be subject.”).

¹³⁴ *See id.* at 10 (overviewing common disclosure requirements).

¹³⁵ *Id.* at 9.

to make money, and if you happen to, fine.” A true partnership relates to the idea of bank balancing.¹³⁶

Consider also this description: “Utmost good faith speaks to fair dealing [I]t frequently animates an agreement to cancel or reform when a reinsurance is shown to be manifestly unfair or unreasonably burdensome to either party, regardless of reason or fault.”¹³⁷ The principle articulated here departs sharply from the contract law doctrines of mistake and impracticability, with their restrictive limits on the possibility of relieving a party of its obligations when that party faces unanticipated hardship. Under the doctrines of mutual mistake and impracticability, for instance, a contract may be rescinded only when one of its basic assumptions has failed to hold and the adversely affected party does not bear the risk of the mistake or the supervening event.¹³⁸ Market conditions or a party’s financial condition are normally not grounds for rescission.¹³⁹ Courts rarely conclude that a contract should be rescinded because its performance has turned out to be burdensome for one party. They usually find that a contract has explicitly or implicitly assigned the risk of the occurrence to the complaining party. In particular, a party that concludes a contract aware that she has limited knowledge is deemed to bear the risk.¹⁴⁰

Given that reinsurance contracts specifically seek to allocate risk—they are entered into to deal with the fact that future states are unknown—they therefore fall squarely within the category of contracts that could not, as a rule, be rescinded when events unfold differently than one party hoped they would. It is thus surprising that parties to reinsurance contracts understood the contractual duty of utmost good faith to include a duty to reallocate risk between themselves *ex post*. This aspect of their obligations is buttressed by the typical arbitration agreement, discussed in greater detail below, under which arbitrators are not to interpret the contract literally but to construe it as an honorable engagement.¹⁴¹ The parties therefore bound themselves in advance to have norms of equity

¹³⁶ Interview (Aug. 15, 2019). The concept of bank balancing is explained below. *See infra* notes 137–139 and accompanying text.

¹³⁷ Kramer, *supra* note 127, at 11.

¹³⁸ RESTATEMENT (SECOND) CONTRACTS § 152 (AM. L. INST. 1981).

¹³⁹ *Id.* § 152 cmt. B, § 261 cmt. B.

¹⁴⁰ *Id.* § 154.

¹⁴¹ *See infra* notes 149–160 and accompanying text.

govern their relationship, creating the possibility of having *ex post* reallocations imposed on them. The open-ended nature of this obligation is captured by the words of an industry expert who wrote in 1980 that agreements to be bound by utmost good faith “are so delicate in character and so susceptible of abuse that unusual precautions must be observed by both parties in their implementation.”¹⁴²

The utmost good faith duty is related to the conception of the reinsurance relationship as an honorable engagement.¹⁴³ One interview subject explained the relationship as follows:

[T]he reinsurer also owes a duty of utmost good faith—to act honorably and not to play fast and loose. There is no definition as to what exactly “honorable engagement” means. That’s the creative part of being a reinsurance attorney: words like that give you a lot of leeway to argue what you want to persuade the arbitration panel, that a result would be equitable even if not compelled by the explicit language of the contract.¹⁴⁴

The reinsurer’s obligation to follow the fortunes of the cedent—which was considered an implied term even when not expressly included in a contract—also has obscure boundaries.¹⁴⁵ Reinsurance treaties obligated the reinsurer to cover the underlying policies on the terms of those policies, unless aspects of coverage are explicitly excluded from the reinsurance.¹⁴⁶ But the duty to follow the

¹⁴² Kramer, *supra* note 127, at 9.

¹⁴³ See *id.* at 11 (“By its nature, a contract of reinsurance cannot anticipate every contingency which can arise. If it could, the utmost good faith maxim and others of the same invocatory nature (‘following the fortunes,’ and the reinsurance contract as an ‘honorable engagement’) would have no traditional place in reinsurance.”).

¹⁴⁴ Interview (Aug. 22, 2019).

¹⁴⁵ See Brady & Monin, *supra* note 107, at 535 (noting that follow the fortune is a “concept often implied in reinsurance arrangements even when not specifically included”). Compare Interview (July 30, 2019) (“No one knows what ‘follow the fortunes’ means. It has been variously interpreted.”), with Interview (Aug. 22, 2019) (“The concept is: if the insurance company conducts a reasonably diligent investigation and the settlement is reasonable, the reinsurer has to pay its share of the claim The basic concept is well understood. I disagree vehemently that it lends informality or ambiguity to the process. It’s an implied term in all reinsurance contracts.”).

¹⁴⁶ See FEER, APPROACH TO REINSURANCE, *supra* note 58, at 33 (outlining reinsurers’

fortunes, according to some accounts, expanded the reinsurer's coverage obligation by requiring the reinsurer to cover the good faith claims decisions of the cedent, including payments made as gestures of good will and compromise payments.¹⁴⁷ Under this view, as long as there was a reasonable basis for deciding to pay a claim, then the reinsurer was obliged to cover the loss even if it was indisputably not within the scope of the treaty.¹⁴⁸ There were divergent views and recurring conflicts over whether losses that were acknowledged not to be covered by the underlying policy had to be covered under follow the fortunes when paid as a gesture of goodwill or to avoid litigation.¹⁴⁹ Disputes arose about how deferential "follow the fortunes" required the reinsurer to be to the ceding company's claims determinations and its expenses related to claims handling. For example, when a cedent had successfully defended a coverage lawsuit—thus establishing that the claim was outside the scope of the underlying policy—was the reinsurer obliged to cover litigation expenses?¹⁵⁰

The Great San Francisco Earthquake and Fire of 1906 illustrates the complexities inherent in the follow the fortunes principle and the kind of intractable, high-stakes disagreements to which it is susceptible, particularly among a trading group transacting across

liabilities under a reinsurance treaty).

¹⁴⁷ See Kramer, *supra* note 127, at 12 (discussing the concept of follow the fortunes and its implications for reinsurance coverage).

¹⁴⁸ See JEFFREY W. STEMPEL, 1 STEMPEL ON INSURANCE CONTRACTS § 17.04 (2d ed. 2014) (explaining reinsurers' obligations under the follow the fortunes doctrine (citing *North River Ins. Co. v. CIGNA Reinsurance Co.*, 52 F.3d 1194, 1210–12 (3d Cir. 1995))).

¹⁴⁹ Compare Kramer, *supra* note 127, at 12 (stating that follow the fortunes does not undermine explicit limitations or exclusions in the reinsurance treaty), with Interview (Nov. 21, 2019) (explaining that sometimes follow the fortunes is interpreted as requiring coverage of losses that are explicitly excluded), and *infra* note 153 and accompanying text (discussing the 1906 San Francisco fire). See also Tilmann J. Röder, *The History of Contract Practice and Conflict Resolution in Reinsurance*, in *MANAGING RISK IN REINSURANCE: FROM CITY FIRES TO GLOBAL WARMING*, *supra* note 72, at 182, 189 ("This issue of a reinsurer's obligation to indemnify the insurer when the latter had paid a claim as a gesture of goodwill (where the original insured did not have a valid claim) led to conflicts."). An illustrative statement of the principle in a modern treatise shows why it has long been considered confusing: "Follow the fortunes obligates reinsurers to indemnify cedents for ceded losses that arguably fall within the scope of the underlying's policy's coverage, even if not technically covered by the policy." Robert L. Haig, *New York Practice Series* § 91:39 (5th ed. 2020).

¹⁵⁰ See *Affiliated FM Ins. Co. v. Const. Reinsurance Corp.*, 626 N.E.2d 878, 880 (Mass. 1994) (determining whether legal expenses incurred during the defense of a declaratory judgment brought by the insured should be covered).

cultures. The earthquake, one of the deadliest in United States history, caused fires lasting several days; over 3,000 people died, and more than eighty percent of the city was destroyed.¹⁵¹ San Francisco properties were insured against fire by United States and European insurers and primarily reinsured by European reinsurers; earthquake insurance did not exist.

The European custom at the time was that fire caused by earthquakes was excluded from fire insurance coverage. Some of the policies written in San Francisco said so unambiguously, but others were less clear.¹⁵² Nonetheless, the position of the European insurers and reinsurers was that, as evidenced by custom and practice in Europe, fire caused by earthquake was outside the scope of coverage. California public and elite opinion, and the California courts, rejected this position.¹⁵³ A second difficulty was that it was often impossible to distinguish earthquake damage from fire damage. Public opinion was quickly mobilized against the mostly foreign insurers.¹⁵⁴ The local real estate industry organized an effort to deemphasize the earthquake and emphasize the fire.¹⁵⁵

The intense popular, regulatory, and legal pressures exerted on primary insurers—erupting in violent attacks on insurance company employees—led many insurers to decide to pay claims that they and their reinsurers agreed were not covered rather than fight what appeared to be a costly and futile war. Some insurers chose instead to withdraw from the United States market, but many

¹⁵¹ See JAMES ET AL., *supra* note 65, at 267 (discussing the damage caused by the San Francisco earthquake).

¹⁵² See ELEANORA ROHLAND, SHARING THE RISK: FIRE, CLIMATE, AND DISASTER—SWISS RE 1864–1906, at 111 (2011) (explaining that insurers in San Francisco created an unclear legal situation by using various earthquake and fire clauses).

¹⁵³ Juries in lawsuits against primary insurers decided on causation in a way that broke the proximate cause link between the earthquake and the fire, thereby attributing losses to the fire alone and finding against insurers. See *id.* at 120 (discussing the role of the jury in the aftermath of the San Francisco earthquake); see also JAMES ET AL., *supra* note 65, at 12 (“The experience of the San Francisco earthquake was a defining moment in showing that a resilient insurance network could survive enormous claims, legal challenges and a political environment which pushed it to pay on claims for which it did not regard itself liable.”); BÄHR & KOPPER, *supra* note 115, at 70 (discussing the effects of public outrage against insurers following the San Francisco earthquake).

¹⁵⁴ See BÄHR & KOPPER, *supra* note 115, at 70–71 (discussing public outrage following the disaster and how this outrage was turned on foreign insurance companies).

¹⁵⁵ See ROHLAND, *supra* note 152, at 119 (explaining that the Real Estate Board of San Francisco passed resolutions to refer to the disaster as “the great fire” instead of “the great earthquake”).

direct insurers decided to pay all losses except where serious earthquake damage could be proved.¹⁵⁶ Even firms whose policies unambiguously excluded fire caused by earthquake paid claims, including in some firms for damage caused solely by the earthquake.¹⁵⁷ Reinsurers disagreed about whether the follow the fortunes principle obliged them to indemnify primary insurers for such payments.¹⁵⁸ Most eventually did, while those that did not exited the United States market.¹⁵⁹ The first reinsurance textbook, published in 1980, captures the continued ambiguity of the “follow the fortunes” principle at that time, calling it the “feature of the reinsurance relationship [most] subject to ingenuous exaggeration” and, while stating that “the concept of follow fortunes cannot create a reinsurance where none exists,” acknowledges that “[h]ow far outside pure indemnification or payment of an insured loss . . . this absolute reinsurance liability goes has never been fully spelled out”¹⁶⁰

3. *Purely Extralegal Obligations.* In addition to the vague obligations of utmost good faith and follow the fortunes, the parties to reinsurance relationships had expectations of one another that were entirely unwritten and extralegal but considered obligatory. These obligations were embodied in a concept known as the bank. Although contracts were written on an annual basis, either with a right to cancel or a right to renew, it was considered a breach of duty to cancel or decline to renew when one party had paid substantially more into the parties’ transactional bank than it had withdrawn. The bank consisted of the cedent’s premium payments and the reinsurer’s payments of covered losses. Market participants describe the bank as follows:

¹⁵⁶ See BÄHR & KOPPER, *supra* note 115, at 70–71 (explaining that following the earthquake, some insurers agreed to pay all losses in full, others withdrew from the United States market entirely, and the majority agreed to pay a set percentage for certain damages).

¹⁵⁷ See ROHLAND, *supra* note 152, at 110–20 (explaining that despite “clearly formulated clauses employed in the insurers’ policies to exclude damage caused by earthquakes,” many firms agreed to pay claims).

¹⁵⁸ See JAMES ET AL., *supra* note 65, at 167 (discussing the follow the fortunes clause in the context of the San Francisco earthquake).

¹⁵⁹ See BÄHR & KOPPER, *supra* note 115, at 71 (noting which firms made payments and which exited the United States market).

¹⁶⁰ Kramer, *supra* note 127, at 12–13.

It was viewed as a long-term relationship; the ceding company would make it up in the next transaction until everyone made their anticipated profit over the long term If the ceding company ran off and got a different reinsurer, then they would be pariahs because everybody knew one another. If the reinsurer enjoys a huge profit and then pulls the plug, the reinsurer would be a pariah.¹⁶¹

In the old days, the reinsurer and the insurance company would have a concept that a bank is built or didn't have any money in it. If the reinsurer was losing money, the cedent felt an obligation to make the reinsurer whole. If it was making too much, the reinsurer felt an obligation to turn some of it over. They didn't forget they had made a whole lot of money. That changed. Today, people don't think in terms of a bank. In the old days, balancing the bank was a relationship norm and a matter of integrity, which existed in the old days unlike today. Ethics, being dependable, being a person of your word.¹⁶²

A market participant who has been based in Lloyd's of London since the 1970s described the concept of bank colorfully:

Everything was written for twelve months at a time, but the understanding was that once you've shaken hands, you've forged a partnership. It's like living together rather than getting married. You hoped you'd judged your man well. This was the typical understanding between the reinsurer and the ceding company Information spreads like venereal disease. The person you [cheated] tells everyone. People go to coffee; everyone talks. You didn't need a media, Internet, website. Word of mouth was good enough. This would include declining to renew a treaty. You had to demonstrate a powerful reason why you didn't renew the partnership. Legitimate business reasons, like that

¹⁶¹ Interview (Aug. 22, 2019).

¹⁶² Interview (Aug. 15, 2019).

you were overtaken by a new chief executive or chief underwriting officer with a new underwriting philosophy. If you just casually said, “I’ve made a ton of money out of you; I’m going to dump you now,” that was the sort of anarchic behavior being controlled by these principles of continuity.¹⁶³

The bank balancing obligation, then, was not an obligation that would be raised for adjudication in an arbitration.¹⁶⁴ Nonetheless, it was considered binding just as the parties’ explicit obligations were.¹⁶⁵

4. Equitable Private Dispute Resolution. Rarely were parties to a reinsurance treaty unable to resolve a dispute through negotiations.¹⁶⁶ When negotiations failed, disputes were adjudicated by non-lawyer arbitrators drawn from the insurance sector—current or retired executives with experience in reinsurance transactions—who were empowered by the typical arbitration clause in reinsurance treaties to consider the agreement as an “honorable engagement” or “gentlemen’s agreement” rather than a strict legal obligation. Arbitrators were to determine the outcome by inferring on the basis of context, course of dealing, course of performance, and industry practice, what outcome the parties must have intended.¹⁶⁷ For example, a typical clause from the 1970s provided:

¹⁶³ Interview (Aug. 9, 12 & 13, 2019); *see also* Interview (July 30, 2019) (“The relationship was assumed to be self-correcting, based on equilibrium. You’re probably too young to remember in the 1970s these aquariums that didn’t need to be maintained. The concept was payback. If the reinsurer got behind because of claims, it would charge more in the next years and make it up; or if claims were low, it would share commissions Ceding companies got a reputation for hopping around and were charged more for doing that.”).

¹⁶⁴ Interview (Aug. 15, 2019).

¹⁶⁵ While the norm of bank balancing is no longer as strong as it was in the past, it continues to influence behavior. *See* JARZABKOWSKI ET AL., *supra* note 79, at 41 (quoting from an interview with a reinsurer relaying a story about an insurer that declined the reinsurer’s offer to provide reinsurance at a lower premium because the insurer was loyal to its reinsurers that had paid a large claim and wanted to “try to give some payback”).

¹⁶⁶ *See* Brady & Monin, *supra* note 107, at 529 (“Prior to the 1980s, there were few reinsurance disputes, and almost all were resolved informally.”); Interview (Aug. 22, 2019); Interview (Nov. 7, 2019); Interview (Aug. 14 & Aug. 20, 2019).

¹⁶⁷ BÄHR & KOPPER, *supra* note 115, at 4; Interview (Nov. 21, 2019). The earliest reinsurance treaties, concluded in Italy, Germany, and France in the mid-nineteenth century,

The Arbitrators shall interpret this Agreement as an honorable engagement and not as merely a legal obligation. They are relieved of all judicial formalities and may abstain from following strict rules of law. They will make their award with a view to effecting the general purpose of the Agreement in a reasonable manner rather than in accordance with the literal interpretation of the language.¹⁶⁸

Judicial enforcement of arbitration awards was rarely pursued because of confidentiality concerns.¹⁶⁹ As one former reinsurance executive and arbitrator explained:

A lot of the presumption was “we don’t want to air the dirty laundry” . . . Reinsurers didn’t want people to know that they were disputing claims, and primary insurers didn’t want their insureds to know that their reinsurance might not be solid. The reinsurer didn’t want to get the reputation of being a difficult claims payer. Sometimes it would just settle if it was a good client. I’m not aware of any arbitration award that

included arbitration clauses. See KOPF, *supra* note 56, at 29, 36 (stating that provisions for settlement of disputes by arbitration were included in German, French, and Italian contracts).

¹⁶⁸ Thomas D. Crittenden, *Is Arbitration a Viable Alternative to Litigation? What May or Must Be Arbitrated? A Reinsurance Perspective*, 13 F. 223, 226–27 (1977).

¹⁶⁹ See *Sumitomo Marine & Fire Ins. Co. v. Cologne Reinsurance Co.*, 552 N.E.2d 139, 140 (N.Y. 1990) (“This appeal calls upon us to resolve a question of reinsurance law—a field in which differences have often been settled by handshakes and umpires, and pertinent precedents of this court are few in number.”). The private ordering literature sometimes conflates private ordering in the shadow of the law with truly “stateless” commerce. Just because contracting parties do not litigate does not mean that their knowledge of the availability of the law to enforce their contract does not shape the way they interact with one another. See RICHMAN, *supra* note 52, at 5 (citing Mark Galanter’s point that the “principal contribution of courts to dispute resolution is providing a background of norms and procedures against which negotiations . . . take place”). However, the features of treaty reinsurance suggest that much of it fell in the category of what Richman calls “stateless commerce,” at least until the middle of the twentieth century. *Id.* at 3. The contracts were often international contracts during a time when the hurdles to enforcing such contracts were high, and confidentiality concerns kept parties out of court, including for the purpose of enforcing arbitration awards. *Id.*

needed to be enforced. No one would contest an award because of confidentiality concerns.¹⁷⁰

Another account by an industry insider written as late as 1977 states that reinsurers were reticent to take their disputes with clients to arbitration and that arbitrations were still rare.¹⁷¹

Moreover, reinsurance arbitration was less formal than the arbitration in the private legal systems described in the private ordering literature.¹⁷² It did not take place under the auspices of an arbitral organization or a tribunal with predetermined rules and procedures.¹⁷³ Reinsurance arbitration was entirely ad hoc, with

¹⁷⁰ Interview (July 30, 2019). A Westlaw search of all state and federal court decisions and trial court orders before 1980 containing the terms “arbitration” and “reinsurance” yielded fewer than twenty-eight orders and opinions in which a party to a reinsurance treaty between a professional reinsurer and a primary insurer invoked an arbitration agreement. A handful of these were actions to enforce an arbitration award. Most were cases in which one party sought to litigate and the other sought a stay of proceedings or a motion to compel arbitration because of the arbitration agreement. Many were cases in which a defendant primary insurer impleaded a reinsurer.

¹⁷¹ See Crittenden, *supra* note 168, at 234 (noting limited arbitration in reinsurance “as a consequence of the amicable spirit”); see also Brady & Monin, *supra* note 107, at 529 (“Prior to the 1980s, there were few reinsurance disputes, and almost all were resolved informally.”). The interview subjects who started their careers before 1980 seemed to take pride in having never or rarely been involved in arbitration or litigation. See, e.g., Interview (Aug. 14, 2019); Interview (Aug. 20, 2019) (“Since I’ve been in the business I’ve only appeared in front of an arbitrator once. I was brought in as an expert witness. You try never to get there.”); Interview (Aug. 16, 2019) (“I used to be responsible for claims operations and would bend over backwards to avoid a dispute.”); see also Interview (July 30, 2019) (“A lot of the presumption was ‘we don’t want to air the dirty laundry, and we don’t want the relationship to be undermined.’ Reinsurers didn’t want people to know that they were disputing claims, and primary insurers didn’t want their insureds to know that their reinsurance might not be solid. The reinsurer didn’t want to get the reputation of being difficult claims players.”). Compare that attitude to the one expressed by the general counsel of a reinsurance company, who started working in the industry after 1980: “I have no problem with going to arbitration or litigation with somebody; if you need to, you do.” Interview (Aug. 14, 2019).

¹⁷² The grain and feed industry, for instance, has a strong arbitration structure. See Bernstein, *Merchant Law*, *supra* note 23, at 1769–70 (describing arbitrators’ “formalistic approach to adjudication”).

¹⁷³ Other studies of similar industries, by contrast, do show use of private legal systems. See, e.g., *id.* at 1769 (presenting the private legal system among grain and feed traders “to resolve contract disputes among its members”); Bernstein, *Private Commercial Law*, *supra* note 23, at 1726 (analyzing the “numerous sources of private commercial law in the domestic cash markets for the purchase and sale of cotton”). Not until the 1990s did a group of reinsurance executives draft a set of model arbitration procedures, and the industry has been slow to adopt them. See, e.g., Edmond F. Rondepierre, *ARIAS US Will Serve the International*

procedures set by the parties and the arbitrators for each dispute.¹⁷⁴ Arbitration awards were not published,¹⁷⁵ and there was no trade organization wielding the threat of expulsion or shaming of a trader who did not comply with an arbitration award.¹⁷⁶

Despite the vague standards governing these contracts, the amorphous obligations of utmost good faith and follow the fortunes, and the unpredictability one would expect from arbitration conducted under a standard that liberates arbitrators from conventional standards of contract interpretation and legal rules, parties resolved nearly all disputes without turning to a third-party adjudicator.¹⁷⁷

C. WHY EXTRALEGALITY AND INFORMALITY IN REINSURANCE CONTRACTS

Judicial enforcement of reinsurance agreements was practically unavailable for at least two reasons. First, the desire to avoid publicizing details of one's business acted as a barrier to publicizing disputes by pursuing litigation or even judicial enforcement of arbitration awards.¹⁷⁸ Mentions of this secrecy interest pervade

Insurance and Reinsurance Law Community, ARIAS US Q. (ARIAS US, Mount Vernon, N.Y.), Dec. 1994, at 2 (intending to "set[] forth recommended standards and rules of arbitration").

¹⁷⁴ See, e.g., Miloš Vec, *Reinsurance Law as an Autonomous Regulatory Regime?*, in *MANAGING RISK IN REINSURANCE: FROM CITY FIRES TO GLOBAL WARMING*, *supra* note 72, at 206, 225 (describing the "autonomous conflict resolution through arbitration tribunals").

¹⁷⁵ I have found only one published arbitration award, printed in 1913. See William Otis Badger, Jr., *Latest Insurance Decisions Discussed*, *BEST'S INS. NEWS*, at 20–21 (June 16, 1913) (reporting the award and decision). Interview subjects confirmed that they were unaware of publication of arbitration awards. (Aug. 16, 2019). They also said that information about arbitrations did not typically spread through gossip. *Id.*

¹⁷⁶ Other similar industries, by contrast, do have trade organizations leading arbitration enforcement. See, e.g., Bernstein, *Merchant Law*, *supra* note 23, at 1769 (indicating "the National Grain and Feed Association"); Bernstein, *Private Commercial Law*, *supra* note 23, at 1725 (indicating "the Liverpool Cotton Association"); Bernstein, *Opting Out*, *supra* note 1, at 119 (indicating "the New York Diamond Dealers Club").

¹⁷⁷ See, e.g., Brady & Monin, *supra* note 107, at 529 (relating the "accepted code of conduct" which led to "few disputes" arising).

¹⁷⁸ See Crittenden, *supra* note 168, at 226 ("Confidentiality is an important aspect."); Tilmann J. Röder, *From Gentlemen's Agreement to Judicial Instrument: The History of Contract Practice and Conflict Resolution in Reinsurance*, in *MANAGING RISK IN REINSURANCE: FROM CITY FIRES TO GLOBAL WARMING*, *supra* note 72, at 182, 194 (recounting the advantages of "avoid[ing] revealing the details of their business to a court and, thus, to the competition"); cf. Omri Ben-Shahar & Lisa Bernstein, *The Secrecy Interest in Contract*

industry histories, and interview subjects confirmed that confidentiality was an important reason parties did not want to resolve disputes judicially.¹⁷⁹ In addition, reinsurers were concerned about signaling that they were excessively resistant to paying claims.¹⁸⁰

Courts were in practice unsuitable for a second reason: the uncertainty and complexity inherent in reinsurance arrangements. This source of informality in the way transactions were concluded and managed also drove parties to avoid courts.¹⁸¹ Highly specified, explicit contracting was not the optimal method of sustaining trade in reinsurance because it was too costly to imagine and specify rules for allocating losses under all possible scenarios that might arise.¹⁸² It would also have been costly to verify to a non-expert court

Law, 109 *YALE L.J.* 1885, 1888 (2000) (discussing the interest in keeping sensitive business information confidential as a reason that firms do not sue).

¹⁷⁹ See, e.g., Pearson, *Industry Structure*, *supra* note 80, at 71 (characterizing an initial cautious approach “given the legal uncertainties”); Kyrtsis, *supra* note 94, at 151–52 (underscoring the potential for “problems in the contracts among competitors who were unwilling to share the information that any sensible risk assessment would require”); HAUETER, *supra* note 82, at 23 (tying the reinsurance industry’s beginnings to the previous “practice require[ing] competitors to grant each other access to their books”); THOMPSON & RALPH, *supra* note 63, at 158 (bemoaning the early problem of “the reassured [having] to divulge the name of its assureds when it applied to another company for reinsurance”); KOPF, *supra* note 56, at 28 (characterizing early reinsurance as transfers of business which insurers “felt they could not keep to other insurers by means of direct contracts between the other companies and the insured”); FEER, *APPROACH TO REINSURANCE*, *supra* note 58, at 19 (recounting the separate relationships between the reinsurer and “the original assured and the Ceding Company”); Interview (Aug. 2, 2019) (stating that reinsurance contracting parties chose arbitration because it was confidential, they could choose an adjudicator with expertise, and they could control the procedure); Interview (July 30, 2019) (“A lot of the presumption was ‘we don’t want to air the dirty laundry, and we don’t want the relationship to be undermined.’ Reinsurers didn’t want people to know that they were disputing claims, and primary insurers didn’t want their insureds to know that their reinsurance might not be solid. The reinsurers didn’t want to get the reputation of being difficult claims players.”).

¹⁸⁰ Interview (Aug. 1 & 2, 2019).

¹⁸¹ See Macaulay, *supra* note 22, at 56 (discussing that planning “for as many contingencies as can be foreseen” and “the existence or use of . . . legal sanctions to induce performance . . . or to compensate for non-performance” are critical dimensions of measuring formality).

¹⁸² See Robert E. Scott & George Triantis, *Anticipating Litigation in Contract Design*, 114 *YALE L.J.* 814, 838 (2006) (discussing how parties reduce the front-end costs of writing specified contracts by delegating back-end decision making about vague terms to an adjudicator).

whether obligations had been met.¹⁸³ The first reinsurance textbook published explained:

Behind every custom and usage that distinguish reinsurance from insurance, a practical business reason can be found. This background implies an intimate relationship and concurrence of interests between insurer and reinsurer which is, indeed, the most distinguishing characteristic of the business. If reinsurance were done entirely at arm's length, the resulting costs of monitoring, verifying, and otherwise supervising the substantial transactions that characterize reinsurance would effectively destroy its utility as we know it today.¹⁸⁴

Reinsurance contract obligations were costly to verify to generalist courts because those courts lacked the contextual knowledge needed to determine whether the parties upheld their obligations.¹⁸⁵ The obligation of utmost good faith requires that the cedent act with complete honesty, disclose all information material to the risk undertaken both initially and after the reinsurance contract is formed, and be diligent in underwriting and in handling claims covered by the reinsurance contract.¹⁸⁶ The reinsurer commits itself to paying claims as the cedent pays them.¹⁸⁷ It is not,

¹⁸³ See Christopher R. Drahozal & Keith N. Hylton, *The Economics of Litigation and Arbitration: An Application to Franchise Contracts*, 32 J. LEGAL STUD. 549, 558 (2003) (discussing the preference for arbitration when obligations are hard to specify or to verify to non-experts).

¹⁸⁴ Kramer, *supra* note 127, at 9.

¹⁸⁵ See Röder, *supra* note 178, at 193–94 (noting that resolving contracts autonomously allowed parties to “choose an arbitrator acquainted with what was customary in the industry”); Interview (Nov. 20, 2019) (“Parties used arbitration because they saw their relationships as unique and esoteric, and courts wouldn’t understand A lot of what happens in these contracts is there’s a lot of gloss that requires someone familiar with the industry to understand what it means. It’s easy to talk about follow the fortunes or utmost good faith. But what that means in practice can be difficult to understand in a given situation. Courts won’t have any idea how this should work and will apply it too broadly or say ‘this is ridiculous’ and give it no credence.”).

¹⁸⁶ See Salm, *supra* note 107, at 99–100 (discussing how the “good faith” obligation creates an “honorable engagement” between the parties where both must “exercise their responsibilities in a manner reflecting the highest level of integrity”).

¹⁸⁷ See *id.* at 100 (stating that “the reinsurer is obliged to pay as the company pays”).

in the ordinary course, to question the cedent's claims processing and payment decisions, and it is to pay claims paid reasonably and in good faith by the cedent even if the claim is outside the scope of coverage, as if the reinsurer were a party to the underlying primary insurance contract.¹⁸⁸ Assessing whether opportunism by one party or the other has occurred under these standards or what coverage determination is reasonable in novel factual circumstances requires a deep understanding of the business and of common practice.

An example from a reinsurance executive illustrates a novel situation of the kind that arose repeatedly and called for contextual interpretation of facts and reasonable expectations about risk allocation between a cedent and a reinsurer:

You learn something from . . . every catastrophe, and it's usually something that wasn't anticipated. There was a hurricane over Houston . . . it stopped and rained over Houston for days. There was an hours clause in the contract, and this storm went on beyond the hours clause. It wasn't anticipated that a single storm might do this. Another one: a hurricane hit Texas and went up into the United States, then turned around and went back and hit Texas a second time. Was that one occurrence or two? Another example is a winter storm. You have a condition that occurred a couple of years ago in the northeast, where the temperature never went above freezing but you had three to four winter storms in that time. Was it the first snowflake that caused the roof to collapse or the last because there was an accumulation of snow on the roof? These are things that are open to question.¹⁸⁹

To deal with such uncertainties that they did not trust courts to handle competently, traders devised alternative contracting and

¹⁸⁸ See *id.* (noting that a company can "adjust and settle claims to its own best judgment, and the reinsurer is obliged to pay as the company pays"); Kramer, *supra* note 127, at 13 (The reinsurer is "bound by the loss settlements of the ceding insurer, including compromise, *ex gratia* payments, and the like"). Yet this requirement is to apply to unanticipated situations and not ordinarily to undermine explicit exclusions from the reinsurance contract. Kramer, *supra* note 127, at 12. However, in some cases the obligation can override explicit clauses in the reinsurance contract. Interview (Nov. 21, 2019).

¹⁸⁹ Interview (Aug. 14 & 20, 2019).

institutional devices to support trade. Traders allocated transactional risk and aligned incentives, committed to information disclosure, made targeted relationship-specific investments, delegated equitable adjudication power to expert arbitrators from the insurance field, and built a global network to channel information that supported reputation-based governance.

IV. AN ECONOMIC ANALYSIS OF REINSURANCE CONTRACTING

A. THE BASIC ECONOMICS OF THE REINSURANCE MARKET

Optimal insurance firm size and geographic scope are functions of the costs of monitoring agents and policyholders. Constraints include agents' honesty, diligence in underwriting, and claims processing and knowledge of local or sector-specific conditions that historically enabled insurers to assess risk and monitor policyholders for moral hazard and claims fraud.¹⁹⁰ While those factors exert downward pressure on firm size and scope, prudence in risk spreading puts upward pressure on the total value of risks a given firm seeks to underwrite and optimal diversity of risk.¹⁹¹ For solvency, an insurance company must limit its exposure to any single risk as a percentage of the total value of risks it has underwritten.¹⁹² This limits an insurer's ability to take risks above a certain value relative to its size. Compounding the benefits of the capacity to underwrite large risks is the desire of clients to deal with fewer insurers rather than many. This factor drives insurance companies to develop the capacity to write large policies to capture more market share of both large and small policies.¹⁹³ Reinsurance increases the underwriting capacity of a given insurer, which allows

¹⁹⁰ See JAMES ET AL., *supra* note 65, at 6, 24 (overviewing the history of risk organization).

¹⁹¹ See *id.* at 6–7 (explaining risk spreading and the qualities required to establish a stable reinsurance business system).

¹⁹² See FEER, TREATY REINSURANCE IN FIRE INSURANCE, *supra* note 62, at 8 (explaining how the law of averages operates in particular classes if a company does not endeavor to limit its liability on all policies issued on certain classes).

¹⁹³ See, e.g., THOMPSON & RALPH, *supra* note 63, at 159 (describing the capacity of reinsurance companies to efficiently handle millions of dollars in business); Kramer, *supra* note 127, at 29 ("The gross capacity demands of the insurance market are unyielding. As a practical marketing matter, most insurers are obliged to accept sums insured which exceed the net retained limits within which the law of large numbers will work . . ."); FEER, APPROACH TO REINSURANCE, *supra* note 58, at 7 (explaining the effects of large treaties in establishing financial relations between parties).

the insurer to better match its underwriting capacity to its economies of scale in managing customer relationships while remaining at a size that facilitates optimal monitoring of agents and policyholders.¹⁹⁴

Reinsurance can also provide financial stabilization to insurers serving local or sector-specific markets, as was historically the norm.¹⁹⁵ Insurers face the challenge of correlated risk that arises in particular with insurers that serve a limited geographic market.¹⁹⁶ The problem of correlation of geographically concentrated risks became unmanageable for local insurance societies with the rising frequency of large-scale fires during the Industrial Revolution.¹⁹⁷ Reinsurance as an identifiable industry was created in response to this problem.¹⁹⁸ The earliest reinsurance firms underwrote risks across thousands of locations.¹⁹⁹ Reinsurance was, therefore, an early industry to globalize.²⁰⁰

B. REINSURANCE CONTRACTING HAZARDS

The central contracting problems of reinsurance mirror those in insurance generally: asymmetric information, adverse selection, and moral hazard. The reinsured's concern is that the reinsurer will be unwilling or unable to cover its losses when they are incurred.²⁰¹

¹⁹⁴ See Robert A. Baker, *The Purpose of Reinsurance*, in REINSURANCE 34 (1980) ("Reinsurance is useful for marketing reasons because it enables an insurance company to write policies for monetary amounts substantially greater than those it could afford to write in the absence of reinsurance."); see also Kramer, *supra* note 127, at 29 ("Fundamentally, the choice of a reinsurance program is in the context of an underwriting and marketing support function.").

¹⁹⁵ See Baker, *supra* note 194, at 35 (explaining how Reinsurance provides financial stabilization).

¹⁹⁶ See FEER, APPROACH TO REINSURANCE, *supra* note 58, at 8 (discussing how market conditions can "compel a company to issue policies for larger amounts that it can prudently retain," which can raise the challenge of correlated risk).

¹⁹⁷ See JAMES ET AL., *supra* note 65, at 44–45 (discussing the effects of fires in the nineteenth century on the insurance industry).

¹⁹⁸ See *id.* at 44 (noting that the large-scale fire disasters "revealed a number of serious shortcomings in existing underwriting practice and must have made insurers all too aware of the need for a strong reinsurance institution").

¹⁹⁹ See *id.* at 44–45 (describing the global spread of the reinsurance industry).

²⁰⁰ See KOPF, *supra* note 56, at 31–32 (overviewing the globalization of the reinsurance industry).

²⁰¹ FEER, TREATY REINSURANCE IN FIRE INSURANCE, *supra* note 62, at 19 ("A company therefore will select its reinsurers principally for their financial strength and their reputation

The reinsurer's concern is that the primary insurer will reinsure its worst risks or, after ceding a class of risks to a reinsurer, take on unduly high risk because that risk is reinsured and either misrepresent the quality of the risk to the reinsurer or fail to exercise due diligence in underwriting or in paying claims.²⁰² In the most extreme cases, primary insurers might engage in outright fraud, falsifying policies and claims and using them to collect payments from reinsurers.²⁰³ Widespread adverse selection and moral hazard arose early in the development of the reinsurance industry.²⁰⁴ The first specialist reinsurance firms faced difficulties that to modern eyes are unsurprising: primary insurers reinsured their worst risks.²⁰⁵ Information asymmetries were exacerbated in reinsurance because of the monitoring constraints inherent in the necessity of spreading of risk across thousands of locations in dozens of countries.²⁰⁶

. . . . A reinsurer writing too large a premium volume in comparison with his surplus and capital is as undesirable as one who is known for his attempts to deny liability at the slightest provocation.”).

²⁰² See THOMPSON & RALPH, *supra* note 63, at 167 (“The reinsurers . . . often suffer because the ceding companies, for competitive or other reasons, do not collect sufficient premiums, quite apart from the prevailing tendency to reinsure as much as possible of under-rated risks, so that in this latter case the reinsurer has also to make up for the deficiency in the tariff rate. This latter naturally does not constitute reinsurance but rather its abuse, similar to when, for instance, heavily reinsured risks in the event of claims are settled too liberally.”).

²⁰³ See RONALD L. SOBLE & ROBERT E. DALLOS, *THE IMPOSSIBLE DREAM: THE EQUITY FUNDING STORY, THE FRAUD OF THE CENTURY 18–19* (1975) (explaining how a massive fraud was committed against reinsurers in 1973 by one primary insurer that created fake direct policies and ceded them to reinsurers to collect benefits).

²⁰⁴ See SWISS RE, *A HISTORY OF INSURANCE* 11 (2017) (explaining how shareholding for insurance was supposed to become an ideal way to raise operating capital for business expansion purposes); see also JAMES ET AL., *supra* note 65, at 2 (“Insurance is in practice not easy to organize because of several well-known problems. Two issues that were identified already in the earliest days of insurance relate to individual policies: adverse selection (for instance, those who know they have potential medical problems are most likely to seek health insurance, though the insurer may not be aware of the heightened risk); and moral hazard, the tendency of those insured to be less careful (those with reinsurance are less worried if their house burns down, and so take fewer steps to prevent it.”); BAHR & KOPPER, *supra* note 115, at 38–40 (providing a historical explanation of the effects of industrialization on the industry).

²⁰⁵ See HAUETER, *supra* note 82, at 23 (“Many insurers could not resist offloading their worst risks onto reinsurers, or charging reinsurers excessively for the cost of acquiring business.”).

²⁰⁶ See *id.* (noting that international business expansion forced reinsurers to “rely on the word of their clients or brokers” to gather information on risks in each area).

C. CONTRACT GOVERNANCE WITHOUT THE COURT OR THE CLAN

Such imperfect information about the capabilities and trustworthiness of potential partners increases the risk of exchange and, absent mechanisms to resolve information asymmetries, prevents some value-creating transactions from occurring. To address these challenges, participants in the reinsurance trade relied on a set of extralegal governance mechanisms.²⁰⁷ They developed a variety of techniques to initiate bilateral cooperation despite the threats of adverse selection and moral hazard, to extend their cooperation to higher-stakes and more varied transactions, and to lengthen the shadow of the future by creating a business network that facilitated the spread of information about behavior and performance in trading relationships.

1. Incentive Alignment. Three ubiquitous features of reinsurance contracts were adopted early by successful firms in response to widespread adverse selection and moral hazard and then were copied by other firms. First, treaty reinsurance came to dominate reinsurance because it regulates these problems better than facultative reinsurance.²⁰⁸ That is because the ceding company is obligated to keep a share of every policy in the entire portfolio and to cede a share of every policy to the reinsurer.²⁰⁹ In treaty reinsurance, the ceding company does not select on a policy-by-policy basis which risks to cede and which to hold.²¹⁰ The reinsurer pays a percentage of each claim in the category of policies described in the treaty.²¹¹ Under pro rata share treaty reinsurance,

²⁰⁷ See *infra* Section IV.C.3 (discussing reputation-based and network-based governance).

²⁰⁸ See JAMES ET AL., *supra* note 65, at 166–67 (discussing the benefits of moving away from facultative insurance); Pearson, *The Evolution of the Industry Structure*, *supra* note 80, at 83 (identifying the rise of treaty reinsurance).

²⁰⁹ See JAMES ET AL., *supra* note 65, at 166 (“Both parties would commit to cede and cover the agreed risks.”).

²¹⁰ See *id.* (noting treaty insurance, unlike facultative insurance, does not allow the direct insurer to choose if they want the reinsurer to cover the risk on a case-by-case basis or allow the reinsurer to decide whether to accept the risk); *cf.* THOMPSON & RALPH, *supra* note 63, at 150–51 (explaining the statistical calculations for premium amounts that reinsurers must make when direct insurers do not choose which policies, and therefore risks, to cover).

²¹¹ See JAMES ET AL., *supra* note 65, at 166 (“[Q]uota share reinsurance contracts involve the reinsurer in a percentage share of all the direct insurer's risks in a specific branch of insurance . . .”).

historically the most common form, each party bears a proportion of the risk equal to its proportion of the premiums.²¹²

Second, the retention requirement further ameliorated moral hazard. A reinsurer rarely took 100 percent of a risk.²¹³ The reinsured was obligated to keep on its own books a substantial portion of the risk and to warrant that it would do so; it could not reinsure the entire balance with other reinsurers.²¹⁴ The retention was calculated by reference to the financial strength of the ceding company, including reference to its expected premium income, premium reserves, and exposure.²¹⁵ The level was set high enough to show that the primary company had substantial skin in the game but not so high that it risked being unable to pay its share of losses.²¹⁶

Third, the reinsurer paid commissions to the ceding company that increased as the loss experience under the treaty decreased.²¹⁷ These commissions included sums to cover operating expenses together with a form of profit sharing by the reinsurer with the reinsured.²¹⁸ Before they introduced these commissions in the late nineteenth century, reinsurers tended to contract with only a few

²¹² Ronald E. Ferguson, *Reinsurance*, in BASES OF REINSURANCE 52, 52–54 (Robert W. Strain ed.).

²¹³ See *The Early Years—On the Way to the Top of the World (1880–1914)*, Munich Re, <https://www.munichre.com/en/group/company/history/early-years/index.html> (last visited Oct. 13, 2022) (“Munich Re, an industry leader, avoiding taking all the risk all but once during the early years of reinsurance.”).

²¹⁴ See William Hoffman, *Facultative Reinsurance Contract Formation, Documentation, and Integration*, 38 TORT TRIAL & INS. PRAC. L.J. 763, 818–19 (2003) (noting the importance of retention warranties and acknowledging consequences of breaching such warranty). A reinsurer should be informed by the reassured as to the amount of insurance the reassured is retaining for his own account and if the reassured ceases to hold the amount declared by him before the reinsurance is completed, the reinsurance contract may become voidable. See *Trail v. Baring* (1864) 66 Eng. Rep. 797, 798 (U.K.) (“[I]t was the custom and understanding upon such reassurances as the present . . . that the office effecting the reassurance should itself retain a substantial portion of the risk covered by the original assurance . . .”).

²¹⁵ See THOMPSON & RALPH, *supra* note 63, at 150–51 (detailing the complex calculations direct insurers and reinsurers use to decide shares); see also Kramer, *supra* note 127, at 3 (detailing the relationship between an insurer and reinsurer in terms of capacity).

²¹⁶ See THOMPSON & RALPH, *supra* note 63, at 63, 66, 171 (noting the importance of retention amount).

²¹⁷ See Kramer, *supra* note 127, at 29 (discussing why commissions could be reduced).

²¹⁸ See Pearson, *The Evolution of the Industry Structure*, *supra* note 80, at 78 (explaining the profit sharing relationship between cedents, reinsurers, and clients); Kyrtis, *supra* note 94, at 145, 151 (describing the increase in unaffordable administrative costs and reinsurers’ role in dealing with them).

partners and only with companies with established reputations.²¹⁹ Munich Re introduced commissions to support its strategy of spreading risk broadly by transacting with many geographically dispersed insurers.²²⁰ The reinsurer's contribution to operating costs and its commitment to share its profits with the ceding company incentivized the latter to invest in monitoring the risks it underwrote and in scrutinizing claims.²²¹ The commissions, together with retention requirements, were key to implementing this broad risk-spreading strategy.²²² Other reinsurers soon copied this structure.²²³

An additional transactional structure that was more commonly employed during times of greater uncertainty, network sparsity, and reduced monitoring capability might also have been a means of aligning incentives. During the infancy of reinsurance and again after the First World War, it was common for parties to enter reciprocal reinsurance treaties.²²⁴ These deals consisted of two reinsurance treaties of similar value, in which each party was cedent in one treaty and reinsurer in the other.²²⁵ Dedicated

²¹⁹ See Pearson, *The Evolution of the Industry Structure*, *supra* note 80, at 73–74 (describing “small groups of managers” from different reinsurers meeting up internationally); FEER, *APPROACH TO REINSURANCE*, *supra* note 58, at 41 (“A Company will, therefore, select its Reinsurers principally for . . . their reputation . . .”).

²²⁰ See *The Early Years—On the Way to the Top of the World (1880–1914)*, *supra* note 213 (“International risk diversification is part of Munich Re’s corporate strategy from the outset”); Pearson, *The Evolution of the Industry Structure*, *supra* note 80, at 78 (noting Munich Re’s wide distribution of risks and commission system).

²²¹ See *The Early Years—On the Way to the Top of the World (1880–1914)*, *supra* note 213 (“Munich Re also shares part of its profits with partners, thus giving them an incentive to make a careful assessment of the risk.”); Pearson, *The Evolution of the Industry Structure*, *supra* note 80, at 83 (detailing the mutually beneficial relationship insurers and reinsurers developed).

²²² See *The Early Years—On the Way to the Top of the World (1880–1914)*, *supra* note 213 (describing Munich Re’s successful reinsurance strategy).

²²³ See Pearson, *The Evolution of the Industry Structure*, *supra* note 80, at 83 (noting the industry shift to using Munich Re’s new business structure).

²²⁴ See Kyrtis, *supra* note 94, at 158–59 (arguing that in the period during and after the First World War, the ability to trade within reinsurance networks was disrupted first by wartime trade restrictions and then by a variety of protectionist and nationalist economic measures). Additionally, Kyrtis argues that the ability to monitor counterparties was reduced by travel restrictions. *Id.* at 158. Kyrtis further explains that volatile currencies and other unstable economic conditions created opportunities for “speculation and arbitrage[,] . . . undermin[ing] the stable relationships” that had previously characterized reinsurance. *Id.* at 159.

²²⁵ See *id.* (describing reciprocal reinsurance treaties in the post-war period).

reinsurance firms entered these treaties, retroceding risks—that is, reinsuring reinsured risks—to primary insurers.²²⁶ Reciprocal reinsurance served as a kind of mutual hostage taking that gave each party leverage over the other.²²⁷

These mechanisms of incentive alignment reduced the need for trust between the parties and therefore facilitated initial cooperation. This initial cooperation created opportunity for the parties to observe one another, to learn about their respective capabilities and trustworthiness, and thereby to engage in future transactions of higher value and more varied potential combinations of terms as they progressively established trust, as discussed further below.

2. *Investigation of Prospective and Current Counterparties.* Transacting parties chose from two different approaches to pre-contractual investigation. Some transactions were preceded by extensive due diligence of the ceding company. One interview subject explained:

[T]he transaction is not too reliant on representations and warranties because the reinsurer is supposed to do its underwriting of the ceding company. It is underwriting the various functions of the ceding company—underwriting, claims handling, data processing, things like that. That's really a much more functional analysis of the ceding company by the reinsurer. It is possible for the ceding company to misrepresent those aspects of the business. I'll give you an example: . . . We suddenly started getting claims from this company going back to the 1980s. Everyone's going through the records and it appears that the reinsurer paid claims and suddenly stopped paying claims for decades. Now new management comes into the ceding company and wants to clean things up. Why would the reinsurer stop paying claims? The head of our

²²⁶ See Pearson, *The Evolution of the Industry Structure*, *supra* note 80, at 71, 79–80 (highlighting that the First World War's impact on market forces allowed new reinsurers to enter the market and meet the demand for reinsurance).

²²⁷ See *id.* at 79–82 (explaining that a purpose of reciprocal reinsurance contracts was to change the balance of power between the parties); Oliver E. Williamson, *Credible Commitments: Using Hostages to Support Exchange*, 73 AM. ECON. REV. 519 (1983) (setting out a hostage model of exchange).

records department discovered that the ceding company was cooking the books—changing the dates on claims to make them look like they were covered.²²⁸

Because *ex ante* due diligence and intensive ongoing monitoring were expensive, several alternative practices were also employed. Reinsurers sometimes accepted cessions based on representations and warranties and audited a ceding company only if there was reason to suspect a misrepresentation or a change in operating practices.²²⁹ Under this approach, the duty of utmost good faith operated together with an expectation that the reinsurer was permitted to inspect the books of the ceding company at any time. The duty of utmost good faith required the cedent to disclose all information material to the reinsurer's decision to underwrite the risk and to refrain from departing in its underwriting and claims handling processes, after the treaty entered into force, from its

²²⁸ Interview (Aug. 1 & 2, 2019). This person started working in reinsurance in the 1970s. Two other subjects, one of whom started in the business in the 1980s and the other in the 1970s, echoed that the reinsurer would study the underwriting and claims handling operations of a ceding company before writing a treaty. Interview (Aug. 14, 2019); Interview (Aug. 16, 2019); see also C.E. Golding, *Retrocession*, in *J. INS. INST. MANCHESTER* 115 (1927) (“[T]he habits and customs and general methods of ceding companies are of special interest to reinsurance men and the most successful practitioners in the business are those who have studied this phase of the matter to the greatest advantage. In accepting a treaty you are binding yourself for an extended period and for a great variety of risks and you have to consider properly the underwriting reputation of your proposed ceding companies. You want to know whether the executive head of the company is cautious, or otherwise, and whether his insurance instincts are sound. All these somewhat intangible factors have their due weight, besides the actual past experience of the treaty and the terms of the contract.”); THOMPSON & RALPH, *supra* note 63, at 161 (“Before a ceding company negotiates a treaty, it will probably desire to make sure that the reinsurance company is in a sound financial condition. It will consider its subscribed as well as its paid-up capital, and the financial standing of the shareholders of unpaid stock may be investigated. The capital stock of the corporation should also be weighed with the amount of the reserves of the company. The nature of the reserves, as well as their availability to pay immediately heavy losses under the particular treaty, ought to be considered.”).

²²⁹ Interview (Aug. 1 & 2, 2019); see also Kramer, *supra* note 127, at 11 (“In reinsurance a person's word is good, assumed to be given in good faith, and it will be relied upon. In giving it, the person is necessarily assumed to be authorized to do so and to be sufficiently knowledgeable and skilled to preclude its groundless disavowal later. Were this not so, the cost of transacting reinsurance would be significantly increased, and it is doubtful it would survive as we know it today.”).

representations to the reinsurer about those processes.²³⁰ A violation of the duty justified rescission of the contract.²³¹

Disclosure and reporting requirements and records access, combined with the reinsurer's entitlement to rescind the agreement at a whiff of concealment or misrepresentation, provided strong assurance to the reinsurer.²³² The reinsured must grant access to its records upon request.²³³ Though this express or implied term was rarely invoked, the threat of it sufficed.²³⁴ Reinsurers infrequently audited the information represented to them by their current ceding companies, either about risks underwritten or claims paid, unless they had a reason to suspect misfeasance.²³⁵ Reinsurers' representatives, however, continually traveled throughout the world to visit current and prospective counterparties and produce lengthy, detailed travel reports about insurers' business strategies, operations, success, and personnel.²³⁶

Additionally, because reinsurers transacted with large numbers of primary insurers, they could compare different strategies and operational choices to assess different firms' reliability and competence. They could also compare their loss rates across treaties of the same type among different companies, which would alert them to whether they had reason to audit a cedent. A pattern of losses that exceeded premiums would also trigger an audit.²³⁷

²³⁰ See Kramer, *supra* note 127, at 9 ("A basic duty of the reinsured is to disclose to the reinsurer all known information touching on the risk of loss.").

²³¹ See *id.* (explaining that if the cedent fails in the duty to disclose all material information, "the reinsurance contract may be rescinded or cancelled").

²³² See Salm, *supra* note 107, at 100 (observing that the obligations between the reinsurer and reinsured, along with possible cancellation remedies, created an arrangement similar to a fiduciary relationship, "with all that term implies in the way of confidence and trust").

²³³ See *id.* (explaining that, at a minimum, the ceding company must provide accounting data to the insurer).

²³⁴ See *id.* (explaining that the "slightest suspicion" of noncompliance from the reinsured "may very well lead to cancellation of the contract").

²³⁵ See Winfield W. Greene, *The Position of the Reinsurance Company in the Casualty Business*, 14 PROCEEDINGS OF THE CASUALTY ACTUARIAL SOCIETY 36, 45, 48 (1927) (showing the lack of audits and suggesting a remedy by means of quarterly audits).

²³⁶ See Niels Viggo Haueter & Geoffrey Jones, *Risk and Reinsurance*, in MANAGING RISK IN REINSURANCE: FROM CITY FIRES TO GLOBAL WARMING, *supra* note 72, at 1, 19 (discussing the vast variety of information collected internationally that focused on strategies, operations, and staff).

²³⁷ See Interview (July 31, 2019) (explaining that a pattern of losses is a red flag and thereby often triggers audits).

Like the incentive alignment mechanisms discussed above, the ability to investigate and monitor counterparties facilitated initial cooperation and ongoing cooperation with primary insurance firms with which a reinsurer did not share many or strong network connections. A reinsurer was more likely to investigate a firm and its records before concluding a treaty if the reinsurer did not know the ceding company's managers and they did not share mutual connections.²³⁸ Intensive monitoring was also more commonly employed by reinsurers that did not rely on transactional incentive alignment, such as those underwriting excess-of-loss reinsurance.²³⁹

3. Construction and Maintenance of a Small-World Network. Participants in the reinsurance trade built an intercontinental network that served as a powerful mechanism of reputational governance. Though the available evidence does not permit a mapping of social ties, it suggests that the network was structured as a small-world network. A small-world network consists of several densely connected cliques that are more sparsely connected to one another.²⁴⁰ As explained in more detail below, local insurance hubs—and in small countries, national insurance markets—had the properties of dense clique networks.²⁴¹ Social ties within them were widely distributed, and actors within each hub had, in general, more frequent interactions with one another and were more embedded in shared social networks that were not solely commercial than they were with network members outside of the local hub.²⁴² There were fewer ties connecting hubs, and these ties had to be intentionally cultivated in a manner discussed further below.²⁴³

As noted in the previous two Sections, investigating prospective counterparties and closely aligning incentives were most important

²³⁸ See Pearson, *Normative Practices*, *supra* note 104, at 2, 11–12 (discussing “the practice of negotiating and sustaining treaties through personal relationships,” and providing examples of reinsurance companies that diverged from this norm).

²³⁹ See Kyrtsis, *supra* note 94, at 171 (detailing the implication of direct involvement in relationship management).

²⁴⁰ See Joel A.C. Baum, Andrew V. Shipilov & Tim J. Rowley, *Where Do Small Worlds Come From?*, 12 *INDUS. & CORP. CHANGE* 697, 697 (2003) (explaining how interfirm networks function similarly to small world networks).

²⁴¹ See *infra* Section IV.C.5 (discussing the creation of mass information channels).

²⁴² The valuation of a social network tie is a measure of the intensity or frequency of interactions between two nodes. See DAVID KNOKE & SONG YANG, *SOCIAL NETWORK ANALYSIS* 52–53 (2d ed. 2008) (explaining the social ties within local insurance hubs compared to dense cliques).

²⁴³ See *infra* Section IV.C.4 (discussing targeted investment in relationships).

for getting initial cooperation started, especially with prospects unknown to the firm considering transacting and to all members of its network. The possibility of investigating a prospective transactional partner lowered the cost of adding new nodes to the network of firms connected by links between those that have transacted with one another.

But as network connections proliferated, they allowed traders to economize on investigation costs by relying on the network for information.²⁴⁴ A reinsurer was more likely to begin a relationship with a ceding company with minimal investigation if a shared connection vouched for the cedent.²⁴⁵ Additionally, some firms would provide additional reinsurance if another reinsurer whose underwriting it trusted had underwritten a part of the risk.²⁴⁶ Membership in certain insurance trade associations could also serve as a trusted indicator of quality that enabled ceding companies to initiate cooperation with reinsurers with which they did not share network connections.²⁴⁷

Business practices both strengthened the existing network ties among current and past trading partners and created new ties. As traders traveled abroad to gather information about prospective and current transactional partners,²⁴⁸ they developed relationships and trust with their counterparts in insurance firms and other reinsurance firms.²⁴⁹ For example, one Swiss Re executive was seen as instrumental in bringing the company back from the brink of ruin due in part to his social adeptness by “feasting and carousing” with German fire insurance association members and their spouses.²⁵⁰

²⁴⁴ See Pearson, *Normative Practices*, *supra* note 104, at 11–12 (discussing how members of the network worked with one another to obtain information on cedents).

²⁴⁵ See *id.* at 11 (showing that the trend of reinsurers to spend less time investigating a ceding company if a mutual connection vouches for the ceding company).

²⁴⁶ See Richard E. Johnson, *Reinsurance: Theory, New Applications, and the Future*, 44 J. RISK & INS. 55, 65 (1977) (illustrating how fair pricing should cause insurance companies and reinsurance companies to have similar profits and losses but noting that excess of loss and stop loss coverage can unfairly affect these margins via higher premiums).

²⁴⁷ See Pearson, *Normative Practices*, *supra* note 104, at 12 (describing reinsurers’ use of reputable organizations, like the Fire Offices Committee, in their investigation of ceding companies).

²⁴⁸ See *supra* note 236 and accompanying text.

²⁴⁹ See JAMES ET AL., *supra* note 65, at 261 (discussing the importance of personal relationships and trust in the industry).

²⁵⁰ *Id.* at 262.

Because reinsurance traders could establish close personal ties with only a limited number of others and gather firsthand information on only a small proportion of risks underwritten,²⁵¹ they gathered information about the quality of foreign insurance firms largely through their networks.²⁵² Reinsurance and insurance executives stayed in frequent contact with their strong network ties by mail, telegram, and telephone “from hotel rooms, railway stations, and branch offices around the world.”²⁵³ Through these channels, they exchanged information about other reinsurers and insurers, including by passing along secondhand information about companies with which they did not have direct relationships.²⁵⁴

4. Targeted Investment in Relationships. A third contract governance technique was the targeted investment in close personal relationships with other traders. These investments both strengthened the force of commitments between the two traders and built powerful information channels that increased the power of the network to govern contractual behavior.

The structure of the industry strengthened the threat of bilateral sanctions by reinsurers against ceding companies that defected. The loss of relationship with one reinsurer could be costly for an insurer because there were relatively few reinsurers. A ceding company would expect that it would likely at in the future want to have access to a given reinsurer’s underwriting capacity.²⁵⁵

The search costs involved in learning about the capabilities and character of potential counterparties provided incentives to play honestly with a high-quality partner with which one had already established a relationship.²⁵⁶ Bilateral sanctions were reasonably

²⁵¹ See *id.* at 56–57 (“Right up until the 1870s, the number of insurance companies operating overseas—both foreign and national—had remained quite limited. The network of cross-border links was still very loose and not very stable, and the volume of interactions across state borders remained small.”).

²⁵² See *id.* at 78 (providing an example of British reinsurance traders who cooperated with continental European companies to obtain financial information on foreign firms).

²⁵³ Pearson, *Industry Structure*, *supra* note 80, at 74.

²⁵⁴ See ROHLAND, *supra* note 152, at 112–13 (describing reinsurers’ use of these relationships following the 1906 San Francisco earthquake).

²⁵⁵ Interview (Aug. 14 & 20, 2019); see also Kramer, *supra* note 127, at 28–29 (describing how reinsurance affects underwriting capacity).

²⁵⁶ Cf. Clifford Geertz, *The Bazaar Economy: Information and Search in Peasant Marketing*, 68 AM. ECON. REV. 28, 30 (1978) (describing how high search costs resulting from the difficulty of ascertaining the quality of goods in a bazaar economy gives rise to “clientelization,” or long-term trading relationships with a few partners once trust is

effective because search costs were high enough to incentivize playing honestly. Additionally, there was a sufficiently robust market so that a party who had been cheated would be able to find alternative counterparties. Search costs were higher for the reinsurer than for the insurer because there were fewer reinsurers and the reinsurer's opportunities for shirking without detection were more limited than the ceding company's. The ceding company's investment in acquiring knowledge about the reinsurer was focused on learning information relevant to financial stability that could be readily provided or discovered through insurance rating agencies²⁵⁷ and trade publications,²⁵⁸ as well as information about how the reinsurer had dealt with other ceding companies in the past. The ceding company wanted to know that the reinsurer paid covered claims timeously and that it was not disposed to disputing coverage unreasonably.

The reinsurer, on the other hand, needed to transact with a much larger number of ceding companies with diversified risk portfolios and to protect itself against moral hazard in the ceding company's underwriting and claims handling practices. Acquisition of this reputational information was costly enough that one's own good experience with a particular counterparty was worth preserving; however, even a significant investment in learning about a counterparty's reputation would not give rise to lock-in once experience falsified those beliefs about trustworthiness.²⁵⁹

Other factors that tend to strengthen bilateral sanctions, though, were missing. In particular, the investments required for each party to perform were not inherently relationship specific. The ceding company's relevant investments were in the quality of its underwriting and claims processing operations and in acquiring customers. The reinsurer's investments were symmetrical: to

established).

²⁵⁷ See generally *Best's Insurance Reports*, AM BEST, <https://web.ambest.com/information-services/sales-information/analytical-products/best-s-insurance-reports> (last visited Oct. 13, 2022) (providing a prominent credit rating agency's report on insurance markets and companies).

²⁵⁸ See, e.g., *THE EASTERN UNDERWRITER* (2015) (functioning as a prominent twentieth century insurance trade publication).

²⁵⁹ It might be that Party A is more likely to interpret Party B's actions charitably if her initial diligence on Party B turned up a spotless reputation. Thus, Party B would be given more chances to cheat before the relationship is terminated. See *supra* note 19 and accompanying text (explaining trust dynamics in markets).

maintain its stability and thus its ability to pay covered losses, a reinsurer invested in the quality of its underwriting and claims handling operations and in maintaining a high-quality and accurately priced risk portfolio. These investments are not specific to one reinsurance partner.

To strengthen bilateral sanctions as a commitment mechanism,²⁶⁰ some reinsurance traders pursued a strategy of targeted intensive relationship cultivation.²⁶¹ These traders would develop close personal ties with select counterparties. Reinsurance executives travelled extensively to sustain business relationships,²⁶² and firms paid for spouses to accompany employees on travel to develop business.²⁶³ While the firms' agents were conducting business, their wives would:

[G]o on trips together, spend time together, in the evenings you'd have dinner with the spouse and the business associates. You started to know the families. You'd discuss kids, what's going on family wise. You got very, very – my best friends now are people in the business – because we grew up together, our families knew each other. . . . Now at a convention, there's no spouses. If so, they're hidden in the room; most corporations won't pay for your spouse anymore. It's a dramatic change. Relationships are much less central. My closest friends in the business are all over the world. We would meet. Some of my clients I went on vacation with. The families got so close, we ended up going on vacation together.²⁶⁴

²⁶⁰ See McMillan & Woodruff, *supra* note 29, at 2432 (providing evidence that lock-in facilitated by bilateral relationships can develop strong commitment between parties).

²⁶¹ See Pearson, *Normative Practices*, *supra* note 104, at 2–3 (discussing the strategy of relationship building).

²⁶² See *id.* at 2 n.5 (describing how a manager of Munich Re in the early twentieth century traveled six months of each year).

²⁶³ Interview (Aug. 14, 2019 & Aug. 20, 2019).

²⁶⁴ Interview (Aug. 14 & 20, 2019). Historical studies of reinsurance reveal similar habits of relationship building going back to the early twentieth century. See ROHLAND, *supra* note 152, at 43 (describing one businessman's experience of reinsurance directors taking part in social activities along with their wives).

One broker emphasized the importance of relationship development to the way business used to be done:

When it was time to go talk to Lloyd's about a U.S. property account, you'd get on a boat and spend a month. That's a little different than emailing. It wasn't even a transatlantic flight. The situations have changed so dramatically, it's hard to compare the old days to the new days in terms of formation of relationships because relationships are so much easier to form today because of the advancement of communications technology. That probably also contributes to the fact that there's less partnership in the transactions because there are so many alternatives It was more of a family affair, get to know spouses, children's names and birthdays A reinsurer would really understand and get to know the business of their customer before getting involved in trying to write business for the customer. Now the reinsurers get so much information in terms of deals that are available, they couldn't have enough people to get into the depth of understanding. Those sorts of close personal relationships don't develop; they're certainly not as deep or personal. It makes absolute sense to me that the contract which memorializes the transaction needs to get more specific because . . . [there's] less of a relationship that's created and more of a trade.²⁶⁵

The strategy of investment in relationships, as these reinsurance traders explain, is no longer dominant. It was an equilibrium strategy when search costs were higher, and it was more difficult to distinguish high-quality from low-quality insurance portfolios. As explained above, reinsurance was written primarily in treaty form, under which the reinsurer would cover a large pool of policies written by a primary insurer,²⁶⁶ such as all automobile policies written in a geographic area. Therefore, the determinants of quality were the primary insurer's underwriting and claims processing

²⁶⁵ Interview (Aug. 15, 2019).

²⁶⁶ See Kyrtis, *supra* note 94, at 148 (describing the prevalence of treaty reinsurance where primary insurers shared risk with the primary insurer).

operations.²⁶⁷ Before the advent of modern computing, which introduced advanced data analysis and actuarial techniques into reinsurance, the reinsurer relied heavily on qualitative information for ascertaining the skill and integrity of an insurance firm.²⁶⁸

Investing in personal relationships therefore served two key functions, which were also mutually reinforcing, in sustaining bilateral cooperation. First, it allowed for lower-cost dissemination of information relevant to quality and improved the accuracy of interpretation of the other party's actions.²⁶⁹ Second, the investments in close personal and family ties were non-salvageable investments that motivated the production of high quality.²⁷⁰ Reinsurance historically did not lend itself to the kind of large capital investments in production that occur in manufacturing. But personal investment in intimate relationships with counterparties—which were also productive by improving the quality of informal contract governance—served the same function.

These selectively cultivated, thick personal ties yielded the additional payoff of strengthening the effectiveness of the network as an information channel. Strong interpersonal ties allowed for the transmission of more trusted and detailed information, including assessments of the behavior and competencies of other traders obtained through experience as well as market information helpful for assessing counterparties' performance.²⁷¹ While the number of

²⁶⁷ See *id.* at 148 n.14 (explaining that the reinsurer was dependent on the fortunes of the ceding company).

²⁶⁸ See *id.* at 168–69 (discussing the declining importance of incentive-aligning forms of reinsurance transaction with the advent of modern computing and risk and modeling).

²⁶⁹ See, e.g., Gilson et. al., *Braiding*, *supra* note 43, at 1395–98 (explaining how ongoing relations improve informal enforcement by improving each party's ability to classify the other party's behavior as breaching or nonbreaching, opportunistic or not, or reciprocating or not).

²⁷⁰ When quality is hard to determine, a supra-competitive price can incentivize the production of high quality. But in a competitive market, such prices will attract entrants and drive down the price, giving rise to an equilibrium strategy of producing low quality. Therefore, the only sustainable form of competition is to dissipate profits through expenditure on firm-specific capital, such as investments in branding or non-salvageable productive assets. Non-salvageable asset investment is typically conceived of as capital-intensive production. See Benjamin Klein & Keith B. Leffler, *The Role of Market Forces in Assuring Contractual Performance*, 89 J. POL. ECON. 615, 627–28 (1981) (providing an overview of non-salvageable productive assets).

²⁷¹ See, e.g., Pearson, *Normative Practices*, *supra* note 104, at 10–13 (describing how one reinsurance executive considering beginning to do business in Japan learned about the market from an executive of another reinsurance firm who was a personal contact and was in turn connected with that contact's contacts in Japan; describing also the process by which

strong ties any one trader could maintain was limited, the strong ties among subsets of traders across distances suggests that the network might have been a small-world network, which has been shown to economize on information costs and thereby enable reputation-based private ordering beyond the limited confines of dense cliques.²⁷² Moreover, as two parties strengthened the ties between them, they also reduced the costs to each of forming new connections with the other's connections.²⁷³ This in turn increased the density and reach of the network.

As this network expanded and became denser,²⁷⁴ it became an increasingly powerful reputational governance mechanism that supported a greater variety of deals. Reinsurers were willing to engage in higher value treaties, riskier treaties, and treaties with distant insurance firms about which they had limited direct information or the soundness of which they had limited capacity to assess themselves. The rise of excess of loss reinsurance, beginning in the 1920s, is an example of the shift away from strict inventive alignment.²⁷⁵ As explained above, in quota share reinsurance, the reinsurer takes a proportional share of premiums and risk and calibrates the cedent's retention to reduce moral hazard.²⁷⁶ In excess of loss reinsurance, the reinsurer agrees to take on all or most of

an executive of a Swiss reinsurance firm considering doing business with an insurer in India sought advice from several personal contacts about "market conditions, . . . company results, and the reputations of managers"); *id.* at 18 (describing how a Swiss company consulted a close partner in North America before deciding whether to underwrite new business with a different firm in North America and was warned about the prospect's poor performance and "doubts about the capability and honesty of [the prospect's] managers both at home and in the US"); *id.* at 12 (explaining how reinsurers triangulated information from various contacts to check on ceding companies rather than relying solely on bilateral trust).

²⁷² See Bernstein, *Contract Governance*, *supra* note 2, at 1066 ("The ubiquity of small-world networks in commerce and bond trade outside the shadow of the law . . . suggests . . . the analysis must move beyond the conditions the legal literature associates with private ordering—namely, close-knit, geographically concentrated, densely connected cliques.").

²⁷³ See Pearson, *Normative Practices*, *supra* note 104, at 11–12 (describing how the ability of a trusted connection to "vouch for" a prospective new partner substituted for investigation of that prospective partner).

²⁷⁴ Network density is a measure of the portion of the potential connections in a network that are actual connections. KNOKE & YANG, *supra* note 242, at 55–56.

²⁷⁵ See Kyrtsis, *supra* note 94, at 159 (describing the "growing tendency towards ceding excess of loss" in the 1920s).

²⁷⁶ See Pearson, *Normative Practices*, *supra* note 104, at 4 (delineating the formulation behind quota share reinsurance).

any losses over a threshold amount.²⁷⁷ Acknowledging that the risk of moral hazard under these treaties was significantly greater, reinsurers engaged in more network coordination to more effectively monitor cedents under excess of loss treaties.²⁷⁸ The network also reduced transaction costs by reducing the need to conduct intensive investigation of prospective and current counterparties and to closely align incentives.²⁷⁹

5. Creation of Mass Information Channels. Part of what enabled this large, geographically dispersed, heterogeneous market²⁸⁰ to function was the one-sided concentration among reinsurers that facilitated long-distance information exchange about the behavior of ceding companies. That dynamic was strengthened by the fact that reinsurers often partnered on treaty reinsurance, concluding deals with one cedent and several reinsurers.²⁸¹ Reinsurance underwriting departments were small. As explained by one former trader:

[T]he number of substantial reinsurers has always been relatively small, so if the ceding company burns the reinsurer and then goes to marketplace, that is known. It's a small group of people, and word gets around fast, . . . it's hard to walk away and get a good rate from someone else If you're dealing with a hundred or so people, word gets around fast.²⁸²

At Lloyd's of London, with its broker model, word spread day-by-day and even minute-by-minute as market participants working in

²⁷⁷ See Pearson, *The Industry Structure*, *supra* note 80, at 82 (discussing the rise and calculation of excess-loss transactions).

²⁷⁸ See JAMES ET AL., *supra* note 65, at 152, 178 (examining the organization and problems surrounding reinsurance and excess of loss treaties).

²⁷⁹ See *supra* notes 216–229 and accompanying text; Pearson, *Normative Practices*, *supra* note 104, at 2–4 (discussing how reinsurance firms relied on information from their network connections as a substitute for investigation of prospective cedents and the decline of long-term, face-to-face contact as the network expanded).

²⁸⁰ See *supra* notes 57–87 and accompanying text.

²⁸¹ See JAMES ET AL., *supra* note 65, at 163 (discussing partnership among reinsurers).

²⁸² Interview (Aug. 1 & 2, 2019). A second interview subject offered the same estimate: that around 100 people were making underwriting decisions about United States reinsurance in the 1960s, when he started working in the industry. See *also* Interview (July 30, 2019); Interview (July 31, 2019).

close proximity were in nearly constant communication.²⁸³ Similar, if lower velocity, rumor mills were at work among players in insurance hubs within the United States.²⁸⁴ But across borders, there were fewer ties and thus less frequent gossip among primary insurers. Information flow among primary insurers was facilitated by two key conferences—in Monte Carlo and Baden Baden—which convened industry participants from the United States and Europe just before the renewal season, as transactors were preparing to conclude new contracts and to decide whether to renew old ones.²⁸⁵

These gossip channels were supplemented by the trade press, which published detailed information about firms and people in the industry, such as the names of the founders and managers of new insurance firms or of new executives at firms and colorful reports of goings-on in insurance companies, reinsurance deals, and reinsurance men.²⁸⁶ Here, for instance, is an excerpt from one report:

[T]he company became notorious as a payer of excess commissions . . . Later developments have assisted it in getting its commissions down to where they should be. The company did a large business for its surplus, and as much of it was term business the reserves heaped up rapidly. A year and a half ago it reinsured its farm business. Later it reinsured a large amount of its term

²⁸³ Interview (Aug. 9, 12 & 13, 2019).

²⁸⁴ See Interview (Aug. 1 & 2, 2019) (explaining that reinsurers shared information about cedents “[m]ostly at places which served alcohol People would have lunch, go out drinking in the evening, drink together in the bar cars on trains going home in the suburbs. People would get to know each other through trade associations and things like that. There were few enough people involved that it’s hard for somebody to go too far off the path before they become *persona non grata*.”); Interview (Aug. 16, 2019) (“The people who are mistreated talk about people who have mistreated them. It spreads like a virus; it’s not planned.”); Interview (July 30, 2019) (“In New York, it was all done around John Street. In San Francisco, it was all done in a five-block radius. In London, at and around Lloyds. After work, people would go to bars and talk.”).

²⁸⁵ See Interview (Aug. 16, 2019); Interview (July 31, 2019); Interview (July 30, 2019).

²⁸⁶ See, e.g., *Notes from New England*, 4 MKT. WORLD & CHRON. 631 (New York) (1912) (mentioning insurance firm organization changes and appointments); see also JAMES ET AL., *supra* note 65, at 162, 180 (discussing different insurance industry magazines); 81 NAT’L UNDERWRITER: LIFE & HEALTH (1977) (exemplifying a typical publication of the time detailing news in insurance). Other leading trade publications included *Best’s Insurance Reports* and *The Review*.

business, but still later took it back. George L. Wiley, for some years secretary in charge of the company, was not trained in the insurance business. There was some friction in the office, and last Summer the directors decided to get a new manager. They negotiated with Carroll L. DeWitt, who at that time had just resigned as general agent of the Newark Fire, but did not come to terms with him. The prospects of the company did not greatly please him and he placed his figure too high to suit the directors. Then they secured the services of Joel W. Hubble, Illinois State agent of the Liverpool and London and Globe, under a three years' contract at a salary said to be \$6,000 a year. Mr. Hubble was a very experienced field man of recognized ability²⁸⁷

The report continues in this way for some length. It also includes details of prices at which the companies' stockholders sought to sell their stock, the fact that no one would buy the stock, the name of the former manager and of his current insurance firm, and the ceding commission reportedly paid by a reinsurer that partnered with the company.²⁸⁸

Compared to primary insurers, the relative market dominance of reinsurers and the need for their underwriting capacity by primary insurers suggests that there might have been limits to the ability of reputation to constrain them from opportunism. They could, one might imagine, behave opportunistically against low-status or poorly connected insurers, and if they did so infrequently enough perhaps suffer no reputational harm. But the market was non-anonymous, and the established reputations of individual people were important. The men who started the first reinsurance companies had long-established reputations in insurance. The founder of Munich Re was asked to establish the company by insurance executives in Munich.²⁸⁹ Senior executives with established reputations were sent abroad to start foreign offices.²⁹⁰ Network ties among insurers were sustained through trade

²⁸⁷ *Insurance News in the West*, 3 MKT. WORLD & CHRON. 631 (New York) (1912).

²⁸⁸ *Id.* at 679; *see also* Interview (July 31, 2019) (discussing the trade press as a source of information about others' behavior).

²⁸⁹ KOPF, *supra* note 56, at 31.

²⁹⁰ *See id.* at 32–33 (discussing Munich Re's foreign growth).

associations and “insurance institutes” that created channels through which they could spread information about reinsurers’ behavior.²⁹¹ Rather than forming separate reinsurance associations, reinsurers participated in insurer trade organizations, allowing them to access primary insurer information networks.²⁹²

6. *Cultivating Solidarity.* Reinsurance traders were predominantly European, especially in the early years of the industry, when contracting was most informal. This example, therefore, undermines the theory that individualistic European culture cannot support robust reputation-backed trade and that collectivist culture is necessary to support informal exchange.²⁹³ Furthermore, the geographic dispersion of reinsurance traders would seem to make it more difficult to sustain the norms and solidarity that have been documented as sustaining exchange among other groups of traders. For example, Bernstein describes several key social groups that promoted camaraderie among Memphis cotton traders, including wives’ clubs, the Memphis Carnival, secret societies, golf tournaments, and other civic events.²⁹⁴ In a transnational business in the nineteenth and early twentieth century, nothing like this strong social glue would have been possible. In each of the thousands of locations in which ceding companies were based, the decisionmakers in these companies would have been participants in social fields unconnected with the reinsurance companies with which they did business. The social relationships among reinsurance traders were substantially different from relationships in the case of geographically concentrated trading groups within which commercial life is inseparable from personal social life.

Nonetheless, historical accounts and statements published in the trade press reveal concerted efforts to promote a sense of common interest and purpose among insurers and reinsurers to sustain

²⁹¹ See ROHLAND, *supra* note 152, at 112–13 (showing that, within some countries, primary insurance was cartelized for much of the twentieth century; therefore, insurers had strong cooperative and lobbying organizations).

²⁹² See *id.* (detailing the meetings which took place between reinsurance directors); *cf.* Bernstein, *Beyond Relational Contracts*, *supra* note 43, at 608–09 (describing Harley Davidson’s creation of a supplier council to build network ties among its suppliers to allow it to credibly commit not to misbehave toward any one of them).

²⁹³ See *supra* notes 34–39 and accompanying text.

²⁹⁴ Bernstein, *Private Commercial Law*, *supra* note 23, at 1750.

cooperation.²⁹⁵ The leaders of global reinsurance firms viewed building trust with other reinsurers and ceding companies as essential to the sustenance of their industry. In a lecture given at one of the municipal insurance institutes that dotted the industry landscapes, an industry leader exhorted listeners that:

Above all we desire a frank recognition that reinsurance is a necessity; that without it insurance business in its present form could not possibly continue. So we have the two branches, insurance and reinsurance, working in unity and concord, neither rivalling, but each supporting and assisting the other, and presenting to the world at large a vision of solidarity and strength which shall confer honor and dignity on the profession to which we are all proud to belong.²⁹⁶

In keeping with this ethos, payments made as goodwill gestures were not uncommon and were often motivated by a cedent deemed to be a trustworthy and competent counterparty that found itself facing a loss it could not bear that was not caused by poor business practices.²⁹⁷

²⁹⁵ See Pearson, *Birth Pains*, *supra* note 73, at 46–47 (providing examples of national and international cooperation among reinsurers).

²⁹⁶ *British Re-Insurance Conditions Reviewed*, THE EASTERN UNDERWRITER, Jan. 27, 1922, at 16.

²⁹⁷ See Interview (Sept. 13, 2019) (“I did a cat cover in 2001, and the broker was from London and put in a terrorism exclusion. We had signed the deal ahead of 9/11, and they excluded terrorism because in London they had more experience with it at that time. We paid anyway, because we decided that the broker had included it by mistake, and we had priced it as including terrorism. I was aware it was excluded but hadn’t really thought about it. It wasn’t a particularly valuable client. We did it just because we thought it was the right thing, and they continued to buy reinsurance from us, and we raised the price the next year.”); Interview (Sept. 18, 2019) (saying that *ex gratia* payments occurred often); Interview (Aug. 14 & 20, 2019) (“A company had a long relationship with the reinsurers, and during that time everybody thought this was a reasonable partner. There were wildfires. The contract was vague, so the company could have gone bankrupt, so we interpreted the contract to have two losses in the same occurrence. The town that got wiped out in California, we basically cut the geographical region in half and made it two occurrences so it didn’t go through the company’s cat[astrophe] covers. The contract itself was liberal or vague, and we interpreted it one way, and the reinsurers objected. But they eventually paid because otherwise the cedent would have gone bankrupt. They want to have a future with this company and earn their money back. Rates are double going forward. This particular company has been in business over 100

The case of reinsurance suggests that when parties have clear shared long-term interests in forming potential mutual benefits through cooperation, the trust needed to support exchange can be cultivated rather than being highly contingent on initial cultural conditions. This conclusion comports with theoretical and empirical findings on the emergence of cooperation. Acting as if one trusts another person by initiating cooperation might itself produce reciprocal cooperation by other cooperative types, incentivizing trusting behavior analogously to the way the promise of financial return incentivizes speculative investing.²⁹⁸ If the shadow of the future is sufficiently large, it can jumpstart cooperation as parties engage in trial and error and imitation to discover and spread cooperative strategies.²⁹⁹ Participants learn from repeated interaction which others will reciprocate and develop strategies to distinguish and protect the trading group from untrustworthy interlopers.³⁰⁰ Cooperation experiments demonstrate that once established, patterns of cooperation that render benefits spread.³⁰¹ The reinsurance industry, as a real-world example of this

years and all these years has been paying premiums.”).

²⁹⁸ See Margaret Levi, *The Transformation of a Skeptic: What Nonexperimentalists Can Learn from Experimentalists*, in TRUST & RECIPROCITY 373, 377–378 (Elinor Ostrom & James Walker eds., 2003) (observing that one needs a good reason to presume the trustworthiness of another); Kevin A. McCabe & Vernon L. Smith, *Strategic Analysis in Games*, in TRUST & RECIPROCITY 275, *supra* note 298, at 296 (explaining how the concept of reciprocity adds a useful dimension to traditional game-theory principles); James Walker & Elinor Ostrom, *Conclusion*, in TRUST & RECIPROCITY *supra* note 298, at 381, 382 (defining trust as “the willingness to take some risk in relation to other individuals on the expectation that the others will reciprocate”); HARDIN, *supra* note 31, at 20 (discussing how trust facilitates cooperation in games that would otherwise not go forward); Russell Hardin, *Distrust*, 81 B.U. L. REV. 495, 498–99 (2001) (explaining how early cooperation is key to establishing long-term cooperative relationships); ELINOR OSTROM, GOVERNING THE COMMONS 43 (James E. Alt & Douglass C. North eds., 1990) (positing that cooperation stems from signals that show willingness to pursue a mutually productive relationship).

²⁹⁹ See ROBERT AXELROD, THE EVOLUTION OF COOPERATION 4 (1984) (“For cooperation to prove stable, the future must have a sufficiently large shadow. This means that the importance of the next encounter between the same two individuals must be great enough to make defection an unprofitable strategy. It requires that the players have a large enough chance of meeting again and that they do not discount the significance of their next meeting too greatly.”).

³⁰⁰ See *id.* at 5 (describing how individuals in an established population use discriminating strategies to increase cooperation).

³⁰¹ See *id.* (describing the spread of cooperative patterns between institutions that share norms).

phenomenon, suggests that it can function even across distances and within a heterogeneous, loosely knit group.

V. CHANGE IN REINSURANCE AND THE CONTINGENCY OF INSTITUTIONS

The changes that have occurred in reinsurance transactions since the 1970s—longer contracts, shopping annually rather than remaining loyal to the same reinsurers for years, a higher incident of third-party adjudication, and the move toward more formalized arbitration³⁰²—suggest that the industry now structures its transactions more formally than in the past, but it is not clear to what extent traders have shifted to a more formal variety of extralegal private ordering and to what extent they are engaging in conventional judicially backed contracting. The opinions of industry commentators disagree on the point.³⁰³ Theoretically, the increasing length of contracts does not necessarily imply reduced trust or greater reliance on formal legal institutions. It could instead result from parties recording in their agreements what they have learned over time through experience.³⁰⁴ Incorporating such learning into the contract can save time when similar problems recur. Some attribute the demise of long-term relationship-based contracting to the late rise of brokers, which might suggest a turn not to public ordering but to a different, intermediated form of reputation-based governance.³⁰⁵

If, indeed, transactors have adopted formal, judicially backed contracting, three initial hypotheses to explain such a shift are (1) improvement in the availability or suitability of legal institutions to traders, (2) disintegration of the private structures that supported trade, and (3) government regulation requiring more formal contracts.

Improvement in the relative suitability of legal institutions might have been driven by changes in the features of the trade, such

³⁰² See *supra* Section III.A.2.

³⁰³ See Pearson, *Normative Practices*, *supra* note 104, at 2 (describing differing opinions between legal commentators).

³⁰⁴ See Mayer & Argyres, *supra* note 13, at 404 (finding lengthening contracts in personal computer manufacturers and their suppliers over time driven by the firms learning how to work together).

³⁰⁵ See Pearson, *Normative Practices*, *supra* note 104, at 2 (highlighting the effect of brokers on corporate relations).

as improved actuarial techniques for pricing risk (a move along the continuum from uncertainty to risk), reduced reliance on expert judgment, and the possibility of securitizing risk. Each of these developments might have made reinsurance transactions more contractible by making obligations easier to specify by reference to quantitative metrics.³⁰⁶ However, for such improvements in legal or contracting technologies to have caused a movement to formal dispute resolution (at least as a credible threat), reinsurance traders would need to have become less concerned about the confidentiality of their records and transactions because the secrecy interest was a key reason parties avoided courts.³⁰⁷

Several exogenous shocks might have undermined the reinsurance network. First, the upheaval of the insurance industry as a whole by mass toxic tort litigation beginning in the 1960s forced many insurance and reinsurance companies out of business.³⁰⁸ That directly and rapidly undermined network ties and also gave rise to the specter of other companies no longer having a future that might discipline their behavior in the present.³⁰⁹ The period might be thought of as casting the entire industry into an end-game state, undermining the conditions necessary to sustain private ordering.³¹⁰ Additionally, changes to the finance industry increased market pressure on insurance executives to show high quarterly earnings and made it more difficult for them to justify declining to

³⁰⁶ See *id.* (discussing the role of technology in reducing the importance of relationships); Holland, *supra* note 87, at 25 (discussing improved actuarial methods improving pricing accuracy).

³⁰⁷ See *supra* note 179 and accompanying text.

³⁰⁸ See Kenneth S. Abraham, *The Long-Tail Liability Revolution: Creating the New World of Tort and Insurance Law*, 6 U. PA. J.L. & PUB. AFF. 347, 355–56, 387–88 (2021) (describing the insurance crisis that followed the rise of toxic tort litigation).

³⁰⁹ See *id.* (explaining the effects of toxic tort litigation on the insurance industry).

³¹⁰ The first decade after these exogenous shocks began saw two high-profile cases of reinsurance fraud. In 1973, a primary insurer created fake direct policies and ceded them to reinsurers to collect benefits. Holland, *supra* note 87, at 25 (citing SOBLE & DALLOS, *supra* note 203, at 18–19). Also in the 1970s, the reinsurance broker Pritchard and Baird went bankrupt as a result of financial malfeasance that included appropriating \$8 million held in trust for its clients. Alfonso A. Alvarez, *2 Brothers Are Indicted in Theft of \$8 Million in Insurance Fees*, N.Y. TIMES (Mar. 11, 1977), <https://www.nytimes.com/1977/03/11/archives/2-brothers-are-indicted-in-theft-of-8-million-in-insurance-fees.html>. The scandal resulted in the case *Francis v. United Jersey Bank*, a standard of corporations casebooks. See generally Reinier Kraakman & Jay Kesten, *The Story of Francis v. United Jersey Bank: When a Good Story Makes Bad Law*, in CORPORATE LAW STORIES 163 (J. Mark Ramseyer, ed., 2009) (describing the legacy of *Francis v. United Jersey Bank*).

shop each year for the most competitive rates for reinsurance, thus undermining expectations of long-term relationships.³¹¹ These changes also introduced competition from other risk-mitigating financial products such as catastrophe bonds.³¹² Unprecedented high interest rates in the 1970s made it possible for insurers to earn significant profits by investing premium income even if their underwriting results were poor. This undermined the incentives to invest in long-term relationships and reputational information and increased entry and competition, weakening the network.³¹³

Finally, government regulators have by turns encouraged and required more formal reinsurance contracts. In 1994, the National Association of Insurance Commissioners, a body of United States state insurance regulators, amended its accounting practices guidelines to declare that a reinsurance contract had to be finalized and recorded in writing within nine months or it must be accounted for as a retroactive financial transaction.³¹⁴ The consequence of this rule was that if a reinsurance contract was not recorded within the specified time period, the “reinsurance could not be used to reduce a ceding company’s loss reserves,”³¹⁵ which measure an insurer’s liability for future claims. A reduction in loss reserves represents an apparent increase in the insurer’s risk level. The September 11 World Trade Center insurance disputes provoked regulatory action in the United States, the United Kingdom, and Bermuda to require contractual certainty; that is, the execution of highly specified, formal, written documents before reinsurance contracts would be effective.³¹⁶

As institutional change in reinsurance suggests, the ability of business networks to sustain trade, or the desirability to traders of relying on them rather than other bonding mechanisms, is

³¹¹ See Pearson, *Normative Practices*, *supra* note 104, at 12 (describing the increasing external factors putting pressure on durable relations between insurers and reinsurers).

³¹² See *id.* at 2 (describing the effect of the new catastrophe bond market).

³¹³ See Fedor Nierhaus, *A 25 Years (and More) in Reinsurance: Looking Back and Looking Forward*, 23 GENEVA PAPERS ON RISK & INS.: ISSUES & PRAC. 318, 319 (1998) (describing the effect of high interest rates on insurer conduct); cf. Barak D. Richman, *An Autopsy of Cooperation: Diamond Dealers and the Limits of Trust-Based Exchange*, 9 J. LEGAL ANALYSIS 247, 247 (2017) (showing that increased market competition undermined trust-based exchange in the diamond industry).

³¹⁴ NAT’L ASS’N OF INS. COMM’RS, ACCOUNTING PRACTICES AND PROCEDURES MANUAL, SSAP No. 62, ¶ 23 (1999).

³¹⁵ BÄHR & KOPPER, *supra* note 115, at 5.

³¹⁶ *Id.*

contingent. Future work will build on the preliminary observations made above to better understand whether reinsurance traders have in fact moved toward more legal contracting beginning around 1980 or to a more formal type of extralegal ordering.³¹⁷

Parties create and maintain this kind of network when formal or state-backed enforcement of obligations is unavailable or exceedingly costly. That condition might arise because of high verification costs, including from limited judicial competence in the subject of trade; limits to judicial enforcement power, such as from geographic dispersion or legal and other evidentiary constraints that prevent courts from awarding fully compensable damages; or parties' interest in keeping sensitive business information or information about their disputes confidential. The parties must be able to develop effective alternative means of bonding obligations at a cost lower than the gains from trade, lower than the cost of state-backed enforcement, and lower than technologically enabled reputation verification. The account that attributes the breakdown of informal governance in reinsurance to exogenous shocks suggests that some minimum level of stability or maximum degree of volatility might be a precondition to sustaining network-based governance.³¹⁸ Much of the first century of reinsurance was a period of confidence that the demand for reinsurance would continue to grow because of the continued growth in industrialization and economic modernization.³¹⁹ Expected gains from future trade would therefore have been high.

VI. CONCLUSION

The lessons to be learned from reinsurance strike at the heart of one of the most practically relevant questions in contract theory today: how to sustain complex collaborations to create valuable things when courts cannot back the promises that must be made for

³¹⁷ Discussions of the erosion of traditional forms of extralegal ordering begin to appear in the literature in the 1970s. See, e.g., Richard E. Johnson, *Reinsurance: Theory, the New Applications, and the Future*, 44 J. RISK & INS. 55, 57 (1977) (“[M]utual obligations, time and changing ethics have eroded the [historic conception of reinsurance].”).

³¹⁸ See *supra* note 310 and accompanying text.

³¹⁹ See JAMES ET AL., *supra* note 65, at 164–65 (“At the end of the nineteenth century, it was generally accepted that reinsurance was a necessity for the development of industrial, growth-driven economies and that it could set the tone for key issues involved in organizing the insurance industry.”).

these collaborations to work.³²⁰ The reinsurance industry suggests one possible answer: intentionally cultivated trading networks. Where formal, judicially backed contracting is not feasible for the trade or is unavailable, the social network required to support credible commitments need not be as tightly or organically interconnected as conventionally understood. Instead, parties can cultivate the trust needed to support trade by starting with transactions that align incentives and commit to high transparency about behavior. From there, parties can strengthen their commitments by making targeted investments in relationships and by building a network in which each party is connected to multiple other parties, which allows two kinds of information to spread that makes reputation more effective: information about behaviors in each trading relationship and information that improves the capacity to judge a counterparty's performance.

In the reinsurance industry, the conditions that give rise to extralegal, network-based governance were present in a way that makes them easily identifiable.³²¹ However, these conditions pervade economic cooperation. Many transactions involve important exchange dimensions that are beyond the reach of judicial enforcement. For example, litigation is expensive, time-consuming, and reputationally costly; parties have business secrets they are not willing to expose by suing; many generalist courts have limited competence in complex matters relating to commerce and innovation; and damages for breach of contract systematically undercompensate. These constraints place a broad range of desired terms of trade beyond the reach of judicially backed contracting.

The complexity of trade that poses challenges to generalist courts attempting to resolve reinsurance disputes is found commonly in modern commerce, from types of transactions that are sometimes thought of as simple, such as sales of goods governed by Article 2 of the Uniform Commercial Code, to complex interfirm collaborations to produce new technology.³²² The experience of reinsurance

³²⁰ See, e.g., Jennejohn, *The Private Order of Innovation Networks*, *supra* note 13, at 284–90 (discussing the central role of interfirm collaboration in innovation and the recent contract theory literature addressing the difficulties of such collaboration); Gilson et al., *Contracting for Innovation*, *supra* note 5, at 479 n.123 (discussing the vertical disintegration of the supply chain in many industries and the rise of “contracting for innovation,” which braids explicit and implicit contracting).

³²¹ See *supra* note 53 and accompanying text.

³²² Even in sales of goods, the vertical disintegration of production has resulted in supply

demonstrates some limits of employing contextualist interpretation of contracts among sophisticated parties to better reflect business practices.³²³ The key insight is that for contextualist adjudication to be effective and trusted, the adjudicator must be capable of and perceived to be capable of determining and understanding the relevant context. The reinsurance trade has resorted to very contextualist, even equitable adjudication, but traders were and remain emphatic that generalist courts lack competence to decide their disputes.³²⁴

relationships that call for customized inputs produced by collaboration between seller and buyer that bear little resemblance to the trade of finished, standardized goods presupposed by the drafters of Article 2 of the Uniform Commercial Code and the Second Restatement of Contracts. Complexity makes it costly to verify to a court the facts relevant to whether breach occurred and what the proper remedies are. In addition, there are legal limits on remedies—such as the rule against penalty clauses and the difficulty of getting specific performance—that pose barriers to courts' ability to efficiently resolve these disputes. Collaborative framework agreements pose even more challenges for current law because there is no quantifiable expected value of an agreement that requires each side to invest in research and design efforts toward a currently undefined end product. See Alan Schwartz & Robert E. Scott, *Market Damages, Efficient Contracting, and the Economic Waste Fallacy*, 108 COLUM. L. REV. 1610, 1624 (2008) (discussing the application of awarding market damages and noting courts' general tendency to enact mandatory rules that displace standard commercial practice).

³²³ See *supra* note 126 and accompanying text; see also Kadens, *supra* note 33, at 1205–06 (noting the flaws in the story of the law merchant and arguing that contract and statute, rather than custom, gave rise to the most widespread aspects of commercial law); Lisa Bernstein, *The Questionable Empirical Basis of Article 2's Incorporation Strategy: A Preliminary Study*, 66 U. CHI. L. REV. 710, 712–13 (1999) (discussing to what extent industry-wide commercial standards incorporated into commercial agreements actually exist in merchant communities); Randy E. Barnett, *The Sound of Silence: Default Rules and Contractual Consent*, 78 VA. L. REV. 821, 908 n.231 (1992) (discussing a consent theory of contract and showing how the concept of default rules bolsters the theoretical importance of consent).

³²⁴ In the 1990s, while the surge of asbestos and environmental tort litigation in insurance was reverberating in the reinsurance trade, industry participants seriously considered turning from arbitration to litigation. Interview (Nov. 21, 2019). They were concerned that the large amounts at stake were no longer suitable for a form of adjudication that lacked full rights of appeal and did not produce precedent or even published reasoning. *Id.* However, the record of generalist courts in interpreting reinsurance contracts was so poor in the eyes of reinsurance industry participants that parties decided to continue with arbitration in spite of its drawbacks. *Id.* In fact, the use of arbitration in the reinsurance industry expanded into facultative reinsurance contracts during this time. *Id.* Historically, disputes concerning facultative contracts had been litigated, but a decision by the Southern District of New York, which was affirmed by the Second Circuit, was widely viewed as egregiously misinterpreting a facultative contract and drove facultative contract parties to arbitration. *Bellefonte Reins. Co. et al. v. Aetna Cas. & Sur. Co.*, 903 F.2d 910 (2d Cir. 1990) (“We reject Aetna’s contentions

Whatever the reasons that judicial enforcement is unsuitable, a network will be built only when the cost of building it is no greater than the value of gains from trade, the cost of state-backed enforcement, or the cost of other bonding mechanisms such as technologically enabled reputation verification. Network-based governance might also require a minimum level of market stability so that players are not excessively concerned about other traders entering an end-game state that undermines the expected value of future trade.³²⁵

Finally, this study has implications for the lawyer's role. Lawyers can create value for their clients by designing agreements that make disputes less likely and easier to resolve. One way to do so is to appreciate the limits of what courts can do and the possibility of leveraging other governance mechanisms available to the parties, including participation in or even the creation of networks of firms.

that the 'follow the fortunes' doctrine, or the 'in addition thereto' language in each reinsurance certificate, exempts defense costs from the clauses limiting liability We hold that these costs are 'subject to' the express cap on liability set forth in each certificate."), *abrogated by* *Global Reins. Corp. of Am. v. Century Indem. Co.*, 22 F.4th 83 (2d Cir. 2021); *see also* Interview (Nov. 21, 2019).

³²⁵ *See supra* Part IV.

APPENDIX: INTERVIEW METHODOLOGY

I conducted semi-structured interviews with seventeen professionals with long-term experience in the reinsurance industry. In qualitative studies designed to “understand common processes, shared experiences and understandings, or to identify shared cultural knowledge and norms,” six to twelve interviews usually suffice to reach “saturation,” the point at which most relevant themes are identified.³²⁶ The average interview length was one hour thirty-six minutes; interviews ranged from thirty minutes to interviews comprising several conversations lasting more than three hours total. Interviewees were promised anonymity to encourage forthrightness.

I used a supplemented snowball sampling method.³²⁷ The industry shifted substantially toward formality around 1980, so I sought to interview people who began working in reinsurance as long ago as possible and at least before 1980. The first attempt was to contact the editor and all authors of relevant chapters in the first reinsurance textbook, published in 1980.³²⁸ The chapters were authored by leaders in the field who were experts on their respective topics. A search for contact information for that initial list of twenty-four people returned eleven obituaries. No information could be located on most of the remaining people, and calls to phone numbers matching other names were not returned or revealed that the person reached was not the person sought. I reached only one person from this group of twenty-four.

I had more success by contacting the Reinsurance Association of America. The President of that organization put me in contact with prominent industry participants who began working in reinsurance

³²⁶ GREG GUEST, EMILY E. NAMEY & MARILYN L. MITCHELL, *COLLECTING QUALITATIVE DATA: A FIELD MANUAL FOR APPLIED RESEARCH* 48 (2013).

³²⁷ In snowball sampling, earlier interview subjects recommend others for future interviews who have the characteristics of interest for the research. JOHN LOFLAND, DAVID A. SNOW, LEON ANDERSON & LYN H. LOFLAND, *ANALYZING SOCIAL SETTINGS: A GUIDE TO QUALITATIVE OBSERVATION AND ANALYSIS* 43 (2006). I combined snowball sampling with targeted searches for professionals having experience in relevant roles and during the period of interest. The sample is not random or statistically representative. Purposeful sampling is appropriate for selecting people who know about the phenomenon of interest, especially where that phenomenon plays out among a small, specialized social group. See *generally* JOHN W. CRESWELL & VICKI L. PLANO CLARK, *DESIGNING AND CONDUCTING MIXED METHOD RESEARCH* (2011) (providing examples and methodologies for mixed method research).

³²⁸ REINSURANCE (Robert W. Strain ed., 1980).

during the period of interest. Those people put me in touch with others. Targeted searches produced many more obituaries, but I supplemented the snowball sampling by directly contacting people who have written or appeared in trade literature or whom I found through LinkedIn.

Ultimately, I was able to interview ten people who began working in reinsurance before 1980. One of them began in the 1950s, several in the 1960s, and several in the 1970s. The other seven interviewees, who began their careers after 1980, had a markedly different perspective on reinsurance contracting but were able to offer insights into how and why the industry changed and were also valuable sources of contacts with other industry participants.

Interview subjects were all current or former chief executive officers or other senior executives of either reinsurance firms or reinsurance brokers, or they were law firm partners who specialize in reinsurance. Five had worked only for brokerage firms, eight had worked for reinsurance firms, three had always worked at law firms, and one had been an in-house lawyer and a law firm lawyer.

