This is an Accepted Manuscript of an article published by Taylor & Francis in Journal of business history on 28 August 2020, available online:
https://doi.org/10.1080/00076791.2020.1808885

Normative practices, narrative fallacies? International reinsurance and its history

Robin Pearson

Hull University Business School, Hull, UK

Abstract

Reinsurance is often characterised as a business built on personal relationships, goodwill and mutual trust. However, at different times in its history observers have warned that technological and other changes threaten the survival of normative practices in the industry. This article investigates what was involved in the micro-business of reinsurance and how that business changed since its early days. It raises questions about the characterization of normative reinsurance practice and about the role of memory in the assessment of continuity and change.

Keywords

Insurance; Reinsurance; Social capital; Narrative fallacies; Financial history

Introduction

Trust between contracting parties is commonly regarded as playing a greater role in financial services than in commerce involving visible assets, where the product traded can be seen and evaluated. Nowhere is this more the case than in insurance, where, absent deliberate malfeasance by either party, the policyholder has to trust that the insurer will still be around, willing and capable of paying out on the policy at its maturity or in the event of a claim, and the insurer has to trust that the insured will remain willing and able to pay the premiums regularly, sometimes over a long period of time. This is also true of the B2B relationship between companies transacting reinsurance, the insurance of insurers, one of the least visible of modern financial services.[1]

Despite its global scale - generating $270bn premiums in 2014 - reinsurance continues to be characterised as a business built on personal relationships, goodwill and mutual trust.[2] Indeed, it extended into international insurance the principle of

---

[1] On the invisibility of reinsurance see Pearson, "Development of Reinsurance", 557; Bähr and Kopper, *Munich Re*, 7.

[2] Neave, *Speaking of Reinsurance*, 126-7, 141; Straumann, "Invisible Giant," 261. Total reinsurance premiums (life and non-life) in 2014 were $270bn, or nearly

uberrima fides, or 'utmost good faith', which required full disclosure between contracting parties and which had governed relations between insurers and policyholders since the eighteenth century.[3] Between 1860 and the Second World War reinsurance grew into a specialist industry in its own right.[4] This period - labelled by the reinsurance expert Julius Neave the 'golden age' of reinsurance - witnessed the formation of modern reinsurance practice and a global network of treaty partnerships between reinsurance companies and cedent companies.[5] These partnerships, it is claimed, were based on close trust relationships nurtured often over great distances by a relatively small group of much-travelled executives who came to know each other well.[6]

Continuity of these relationships became important to both parties to reinsurance treaties because, with the annual volatility of results that often characterised the kind of high risk business that was reinsured, such contracts would normally only generate profits over the long term.[7] As discussed below, trust was built upon the convergence of interests of reinsurers and cedents, whereby the former, with a stake in the profitability of the business written by the ceding companies, was deemed to 'follow the fortunes' of the latter. The practice of negotiating and sustaining treaties through personal relationships came to be regarded as the norm during the first century of reinsurance. In this context 'normative practice' may be defined as 'a way of doing things' that has both prescriptive and descriptive qualities,

---

six per cent of global insurance premiums. Calculated from Haueter and Jones, *Managing Risk*, appendix, table A.4.

3 Utmost good faith requires full disclosure by both parties to insurance contracts of all circumstances that might be deemed material to the decision to insure. The principle was laid down by the ruling of Lord Mansfield in *Carter v Boehm* (1766) All ER Rep 183. See Watterson, "Carter v Boehm," and the essays in the special issue of *Insurance Law Journal* 27 (2016).

4 Pearson, "Evolution."

5 A direct or primary insurer, that is the company dealing directly with the policyholder, was also known as a cedent when it reinsured, or 'ceded', part of the original risk to a reinsurer.

6 Wilhelm Kisskalt, general manager of Munich Re in the inter-war period, spent as much as six months of every year travelling for the purpose of maintaining his company's business connections. Werner, "Rückversicherung," 24. My thanks to Tobias Straumann for this reference.

7 Neave, *Interviews*, 64, 100. I am grateful to an anonymous referee for directing me to this source.

and represents commonly accepted routines of business that served to regulate the conduct of participants.[8]

Writing from the viewpoint of the 1980s, however, Neave believed that things had changed since the Second World War. He argued that the emphasis on personal relations between executives and the development of reputational capital between companies had diminished for two reasons. First, the great increase in brokered business had undermined those relations. While brokers needed to inspire confidence in their clients, they were tough negotiators with reinsurers. They were not fundamentally interested in ensuring that treaty relations were long term and profitable, but rather in obtaining the best terms they could for conveying the business.[9] Second, with the advent of computers reinsurance had become a faster, more mechanized business, one in which the control exercised by reinsurers over the quality of risks ceded to them had markedly diminished. [10] The machine-processing of mass data to calculate premium rates, and the greater application of standardised actuarial techniques in underwriting, further reduced the need for face-to-face contact between reinsurers and their clients. Neave was one of several observers who believed that reinsurance had moved away from its traditional practices, to the detriment of sound underwriting.[11]

In the following decades others, writing from a variety of perspectives, observed further movements along this trend. 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.[12] One author wrote of a change in

---

[8] Kahneman, *Thinking Fast and Slow*, 71. The term ‘normative practice’ appears most frequently in the modern literature on business ethics and the law of custom. Cf. Postema, “Custom”. It is closely related to the concept of socially embedded behavioural norms that is central to new institutional economics. Cf. Greif, *Institutions*, 36. The idea of convention regulating conduct, of course, can be traced at least as far back as the empiricists of the eighteenth century, cf. Hume, *Treatise*, 489-90.

[9] Neave, *Interviews*, 64, 100.

[10] On the early history of computing in insurance, see Yates, *Structuring the Information Age*.

[11] Neave, *Speaking of Reinsurance*. On the rapid growth of international reinsurance from the 1960s see Werner, “Hurricane Betsy,” 24-6. On the structural crisis of the late 1960s see Gugerli, “Cooperation and Competition,” 184-209.

[12] Stammel, *Waving the Gentlemen’s Business Goodbye*; Thomas, “Utmost Good Faith.” My thanks to an anonymous referee for these references. On the long-standing preference of reinsurers for resolving disputes through arbitration rather than through the courts, see Vec, “Reinsurance Law.”

'conflict culture' between ceding companies and their reinsurers.[13] Another asserted that 'the traditional reinsurance market characterised by personal relationships, emotions and social understanding is dead and will not return.'[14] Various explanations were offered, including the rise of brokered business, the effect of which we noted above, poor results, competitive pressures, the rise of insolvencies in the reinsurance market, the explosion of law suits at the end of the 1980s taken out by Lloyd's names for negligent or fraudulent underwriting by brokers and underwriters, and the consistent legal framework for disputes provided by the precedents arising from court judgements – arbitration awards creating no such legal precedents.

Just over a decade later, commentators were again claiming that traditional reinsurance practices faced an existential threat, this time from the new catastrophe bond market and alternative risk transfer (ART) products. In a study of risk trading in global reinsurance published in 2015, Paula Jarzabkowski and her co-authors claimed that 'epistemic cultures', that is to say 'general understandings' about how to make deals, influenced relations between reinsurers and cedents and between reinsurers themselves, as they shared information about risks, clients, market conditions, technologies and underwriting practices.[15] Central to the success of deals was the ability of reinsurers to draw upon knowledge derived from iterative social activities with their clients, and by developing personal relationships with them, often over years.

Jarzabkowski's study proved controversial because it claimed that ART, and the new risk assessment technologies that this involved, threatened the epistemic cultures upon which normative reinsurance practices were based.[16] The issue examined by this article is not whether such alarms were justified and were good predictions of the future, but whether the narrative of normative practices in the past was either supported by historical evidence or was fallacious? As we demonstrate below with our case studies from the interwar period, that narrative, and the anxiety that normative practices were under threat, were already present among a previous generation of reinsurance practitioners working in the 1930s.

---

[13] Röder. "From Gentleman's Agreement," 182.

[14] Stammel, *Waving the Gentlemen's Business Goodbye*, 177.

[15] Jarzabkowksi et al, *Making a Market*.

[16] "Catastrophe deals threaten reinsurance sector 'collapse'," *Financial Times* (28 April 2015); "Catastrophe bonds pioneer hits back at book," *Financial Times* (3 May 2015). My thanks to Niels Viggo Haueter for these references.

The concept of the narrative fallacy was popularised by Nassim Taleb, who defined it as a form of post-hoc rationalization arising from our predilection for compact and compelling stories in which 'we more easily remember those facts from our past that fit a narrative, while we tend to neglect others that do not appear to play a causal role in that narrative.'[17] Across generations of reinsurers the narrative has centered on the perception that the industry was built upon the normative practice of personal long-term high-trust relations between treaty partners, relations that figured prominently in memories of how business was done in the past.

Focusing on the so-called 'golden age' of reinsurance before the Second World War, our principal question is whether this narrative is borne out by the historical evidence? Our sources are varied: memoirs of reinsurance executives, the insurance press and other contemporary publications, and above all the treaty files and related correspondence of the Swiss Re, whose corporate archive in Zurich is the largest historical repository of reinsurance documents in the world. For our case studies we selected treaties that were operated over periods of two decades or more between the 1890s and the 1930s with ceding companies in Japan, India and the UK in order to provide a broad international perspective. This amounts to only a tiny sample of the huge number of treaties preserved in the Swiss Re archive, but we have no reason to think that our sample is biased or unrepresentative of contemporary reinsurance practice in any way.

Following a section that outlines the macro-development of the industry, we explore what was involved in the micro-business of reinsurance from its nineteenth-century origins to the late 1930s. How and why did the individual exchanges that constituted the process of reinsurance change since the earliest days of the industry? To what extent did the much lamented loss of traditional practices of reinsurance ever exist in its so-called 'golden' era? Was it, indeed, a business built on personal relations and trust across borders? To address this, in sections two and three below we examine the relations between the key actors, namely brokers, specialist reinsurers and ceding companies.

1. The development of reinsurance

[17] Taleb, *Black Swan*, 62-84.

Although its roots were in medieval marine underwriting, the modern history of reinsurance commenced with the first bilateral facultative treaties between British, French, Belgian, Russian and German fire insurance companies in the 1820s and 1830s. [18] These companies agreed to provide a reinsurance 'faculty' and 'cede' to each other a proportion of a list of specific risks that they had insured. The lists were known as 'bordereaux', and novel or large and technically complex risks, such as textile mills and sugar refineries, were prominent among those reinsured.

Facultative treaty reinsurance quickly became a means by which fire insurers could spread their risks across borders, smooth annual fluctuations in results, and increase underwriting capacity. Fire insurance companies began to establish their own reinsurance subsidiaries, while independent, so-called 'professional', reinsurers such as the Swiss Re (1864) were also founded, some of which in turn formed their own captive subsidiaries for retrocessions, the reinsurance of reinsurers.[19] As the market expanded, other organisational forms emerged, including specialist brokers, who mediated reinsurance deals between cedents and their reinsurers.

During the later nineteenth century a shift from facultative to obligatory quota-share reinsurance helped reduce transaction costs, which in turn attracted more companies into the market. In a quota-share treaty the reinsurer agreed to reinsure a defined percentage (the quota) of groups of risk, categorised, for instance, by location or type of property. The underlying principle was that the reinsurer was to 'follow the fortunes' of the ceding company for the duration of the treaty.[20] This kind of contract made long-term cooperation more necessary and could produce a continuity of relations that stretched over many years. Because the reinsurer was dependent on the underwriting ability and honesty of the cedent, such treaties were monitored through on-site visits by travelling managers, correspondence and personal meetings between executives, and annual scrutiny of the treaty's performance. Treaties were usually of fixed duration, but could be subject to regular renewal. Negotiations were often painstaking over issues such as the commission to be paid by the reinsurer to the cedent, the premiums to be paid by the cedent to the reinsurer, expense allowances, profit sharing, and the terms governing claims payments. If end-of-year results were worse than anticipated, the commission rate could be a lever for reinsurers trying to

---

[18] The following, unless otherwise noted, is based on Pearson, "Evolution."

[19] Pearson, "Birth Pains," 44-5.

[20] On 'following the fortunes', see Neave, *Speaking of Reinsurance*, 15.

adjust treaty terms to reflect performance. Nevertheless, it was also important for the reinsurer to understand the business strategy, reputation, internal organisation and culture of the ceding company, both before signing a quota-share treaty and during its duration.[21]

The rise of the quota-share treaty increased market capacity, allowed risks to be more widely distributed, and gave the industry a critical mass.[22] Around 1900 a new form of non-proportional excess loss (or XL) reinsurance began to appear. This spread rapidly after the First World War, particularly in fiercely competitive branches such as automobile reinsurance.[23] In XL reinsurance the absolute - not the proportional - liability of the reinsurer was fixed above an agreed level of cover that the ceding company retained. When accepting an XL risk, a reinsurer usually took into account the past claims experience of the cedent and set an upper limit above which the cedent would resume liability. Nevertheless it was difficult to set premium rates and the business undermined the principle of the reinsurer 'following the fortunes' of the ceding company. The XL contract involved an entirely different distribution of risks between the cedent and reinsurer, whereby liabilities were separated rather than shared. It allowed cedents to monitor only the layer of risk that they retained and to care little about the excess layers that they laid off to reinsurers. XL reinsurance thus shifted reinsurance relations from cooperative to contractual and arguably helped weaken trust between parties.[24] A Swedish actuary writing in 1937 thought it was 'not surprising that these modern forms of reinsurance are mainly effected with casual reinsurance relations of a more speculative nature'.[25]

The First World War disrupted the relations between insurers that had built up over previous decades, especially between German reinsurance companies and their treaty partners in enemy countries. During the war the rising demand for reinsurance

---

21 Kyrtsis, "Treaty Reinsurance," 148-52; Kopper, "Scientific Research," 80.

22 Hollitscher, *Internationale Rückversicherung*, 59-60

23 Kyrtsis, "Treaty Reinsurance," 161.

24 By contrast, proportional reinsurance was regarded as a safer product, because the reinsurer participates with a defined percentage of all claims faced by the cedent. XL reinsurance played a major role in the crisis that befell Lloyd's of London in the 1990s. The riskier character of the XL business was also reflected in suggestions of legal practitioners that while proportional forms of treaty reinsurance could be regulated by company law, XL reinsurance should be regulated under contract law. My thanks to an anonymous referee for this point.

25 Herman Wold, actuary of the Landsbygdens Aterförsäkringsbolag, Stockholm, in *The Review* (26 November 1937), 1220.

could not be satisfied even by the large number of new companies entering the market, so direct insurers began to sell more reinsurance themselves. After the war demand fell and reinsurers were driven to compete more fiercely, to accept higher risk exposure and to take more XL reinsurance at lower rates. External pressures, notably inflation and volatile exchange rates and asset values, diminished the desire for long-term arrangements and pushed reinsurers towards non-proportional and facultative type contracts in which liability was difficult to price.[26] Moreover, attempts to increase business through more short-term facultative contracts raised administrative costs for reinsurers and reduced their profit margins. Erwin Hürlimann of Swiss Re was thinking of these trends when in 1931 he wrote of the 'gamble' that was driving the contemporary reinsurance business.[27]

At the same time, in a buyers' market direct insurers demanded reciprocity - a mutual exchange of risks, of roughly equal dimensions and quality - for the reinsurance that they ceded. This 'reciprocity principle' compelled the professional reinsurance companies to match the liabilities in one contract with those of another.[28] It shifted the balance of bargaining power towards the direct insurers and led to more reinsurers participating in individual treaties, which further pushed up administration costs and squeezed margins.[29] The demand for reciprocity also undermined trust because the risks exchanged tended to be of lesser quality – the practice became known vituperatively as 'exchanging one's dirty washing'.[30] Because of rising costs, the reciprocal system led to the emergence of what was described as a 'keen bargaining spirit' in reinsurance, in which the primary aim was to secure the best deal, rather than find a solid partner with whom to establish long-term contractual relations.[31] One Norwegian manager remarked in 1937 that reinsurance was becoming 'more of a commercial than an insurance transaction', with much greater 'give and take' in the negotiations surrounding it.[32] In short, with the financial and economic

---

26 On the effects of post-war hyperinflation on insurers and reinsurers, see Bähr and Kopper, *Munich Re*, 111-13.

27 Cited by Kyrtsis, "Treaty Reinsurance," 167. Hürlimann was general manager of Swiss Re between 1921 and 1930, and chairman 1942-58.

28 *Post Magazine and Insurance Monitor* 23 (10 June 1939), 1144.

29 *Post Magazine and Insurance Monitor* 23 (4 June 1938), 1163.

30 Haueter and Jones, "Risk and Reinsurance," 13. I am grateful to an anonymous referee for drawing my attention to this reference.

31 *Post Magazine and Insurance Monitor* 23 (10 June 1939, 1146.

32 *The Review* (26 November 1937), 1208, citing Reidar Brekke, general manager of Trondhjems Forsikringsselskab.

uncertainties of the inter-war years, and with the growth of XL transactions and the pressures associated with reciprocity, some observers felt that reinsurance was becoming sharper in its business practices, with less emphasis on face-to-face contact and close, durable relations between treaty partners.

2. Trust and social capital in inter-war reinsurance?

Even at an early date, the number of companies connected via reinsurance could be very large. At the time the town of Sundsvall, Sweden, burnt down in 1888, 57 companies from 13 countries were supplying 90 different channels of reinsurance and retrocession to a network centred on the four Swedish companies that directly insured property in the town.[33] This reveals the complexity that was already a feature of international reinsurance by this time. It also raises questions about the scope of executive networks. Is it probable, with inter-connections on such a scale, that reinsurance managers ever had a complete overview of their liabilities and the inter-locking interests of their companies with those of others? If there were limits to such an overview, to what extent did personal contacts actually drive the growth of reinsurance? How did industry leaders set about negotiating contracts, managing information, and developing relations with cedents, brokers and retrocessionaries? Did reinsurance really develop on the basis of an international, high-trust community of experts?

Certainly there is evidence that the reputation of an individual and his company - social capital - could matter in the world of the managerial elite. The chairman of Swiss Re, Charles Simon, recalled how before the First World War insurance and reinsurance executives met at conferences, where they and their wives took part in activities such as picnics, card games and dinners and got to know each other personally: '…manchen Skat habe ich mit ihnen [the directors of German insurance companies] bis spät in die Nacht hinein gespielt and manche Flaschen geleert…'. When managers moved between firms, they carried these connections with them into their new jobs. Simon remembered how his 'excellent personal relations' with the managers of many major German fire insurance offices, developed while he was working at the Rhin et Moselle Insurance Company of Strassbourg, were of great assistance to him when he joined the Swiss Re: '…mancher Vertrag ist mir so auf den

---

[33] Calculated from Rohland, *Sharing the Risk*, fig. 31. Only nine of the 57 can be identified as professional reinsurers, the rest were direct insurance companies.

Tisch geflogen…'.[34] Such relations could be reinforced by contacts between small groups of managers who were continually travelling between offices and markets. Extensive international travel, the identity badge of the reinsurance executive, was supplemented by frequent correspondence, telegrams and telephone conversations between the 'captains of insurance', as Simon called them, from hotel rooms, railway stations and branch offices around the world. This became easier as the technologies of global communication improved, speeds increased and distances shrank.[35]

In such circumstances, business talk was sometimes accompanied by personal greetings and gossip. During the 1930s J. N. Tollenaar, a director of the London brokers Sedgwick Collins, spent several years negotiating then managing a treaty with Swiss Re, by which the latter accepted XL automobile reinsurance from Lloyd's, a business with which the Swiss were not very familiar. This necessitated frequent visits by Tollenaar to Zurich, where he got to know Paul Alther, the manager of Swiss Re's accident department. By 1939 his letters to Alther contained more than formalities: 'Glad to see that you are in Zurich…and I hope that you are keeping well under the severe strain under which you must all be working at the moment...' In a handwritten note Tollenaar added,

> Hope your family are all well. We are living in Ascot at the moment. Two of my daughters are nurses (quite pretty but quite inefficient I should imagine). The eldest one is on war work.[36]

Personal recommendations could prove critical when seeking treaty deals. In 1913 the Swiss Re was exploring the feasibility of commencing reinsurance in Japan. Charles Simon approached Reinhard Schultz of the Süddeutscher Rück of Munich for advice, as that firm already had a reinsurance agreement with Japan's Kyodo Fire Insurance Company. Schultz forwarded a copy of the Kyodo treaty, invited Simon to quiz the Süddeutsche managers who dealt with Japanese business, and provided advice on treaty conditions and banking arrangements. Schultz also recommended an expert intermediary, Wilhelm Guggenheimer, through whom the Swiss could negotiate with its potential partner, the Kobe Marine, Transport and Fire Insurance

---

[34] Charles Simon, *Bilder und Figuren*, 8. Simon was general manager of Swiss Re from 1900 to 1919, and chairman from 1919 till his death in 1942.

[35] On the impact of the telegraph on insurance business, see Pearson, "Growth, Crisis and Change," 490.

[36] Swiss Re Corporate Archive (hereafter SRCA), 10.143 196.02, Tollenaar to Alther (11 October 1939). Alther was general manager of Swiss Re, 1931-50.

Company, the second largest non-life insurer in Japan.[37] One factor behind Schultz's eagerness to help was an expectation, made explicit to Simon, that the Süddeutsche might gain business from the Kobe treaty, which commenced late in 1913, though it is not clear whether such expectations were ever met.

Another example of the way personal introductions could develop into longer-term relationships can be seen in the negotiations between the Swiss Re and its first treaty partner in India, the New India Assurance Company of Bombay. In 1922 Frederick Pook, sub-manager of the Mercantile & General Insurance Company of London, sent to the Swiss Re 'some memos of interviews concerning foreign companies', including the New India, 'from which you will see that there is a possibility of this company offering you business in order to avoid breaking an agreement which the Ceding Office have with Messrs Sedgwick, Collins & Co of London'.[38] Pook added that he expected to see R.J. Duff, the manager of the New India Company, in London before he returned to Bombay, and we 'will do everything possible to secure a share of this business for you direct'.[39] A few days later, Paul Alther, then Swiss Re's assistant manager, wrote to Duff, repeating an offer of a reinsurance facility made when he had met Duff briefly in Singapore earlier that year.[40] By accident of their respective travel plans, the two men failed to meet, but a year later Duff wrote to Alther asking him to help the New India find 'a fairly small, but good fire treaty from a first class continental company, in a country where experience has not been bad since the war'. The carrot offered was that the Swiss Re might obtain a slice of the business.[41] Subsequently Alther offered Duff a quota share in one of the treaties on the Swiss Re's books 'on, of course, a reciprocal basis', in

---

37 SRCA, 10.135 486.02, Schultz to Simon (30 October 1913). Rank order of Japanese non-life companies in 1914 given in Yoneyama, "Great Kanto Earthquake," table 5.

38 SRCA, 10.119 090.01, Pook to Swiss Re (25 August 1922). The agreement referred to was a clause in the contract between Sedgwick Collins and the New India Company, by which the latter agreed not to reinsure in England other than through the agency of Sedgwick Collins. This did not apply, however, to non-UK risks reinsured outside the UK by the New India with European companies.

39 The New India Assurance Company was founded in 1919 by the London brokers Sedgwick Collins & Co and the Tata group, India's largest business conglomerate. On the New India Company and Swiss Re's other connections to India, see Balachandran, "India," 448, 453-8.

40 Alther was also in India in 1922, but he only appears to have visited the offices of British and foreign insurance companies. Balachandran, "India," 455.

41 SRCA, 10.119 090.01, Duff to Alther (22 June 1923).

return for the Swiss receiving a share of the New India Company's surpluses for accident and burglary insurance.[42] Nothing, however, came of these exchanges and it was over two years before negotiations recommenced.

In January 1927 Duff was in the Swiss Alps, perhaps on holiday. Writing to Alther from Chesières, Duff remarked that 'if you are in Zurich, there are one or two suggestions I would like to talk over with you, and as I have to go to Rotterdam and Antwerp, I could spend a day in Zurich en route'.[43] Travel plans subsequently changed, but eventually a short meeting between the two men was held at the Swiss Re's head office. Two main topics were discussed: first, the reciprocal participation of the Swiss Re in the New India's existing reinsurance treaty for Indian risks; second, the New India's desire to extend its fire insurance business in Europe by finding a European company, preferably Swiss or French, from which it could accept reinsurances in return for acting as an agent for that company in India.[44] The regulations of the Fire Offices Committee in London, which had dictated much of international fire insurance practice since the 1870s, did not allow members to have more than two agencies operating in any one district, so this ruled out the principal Swiss offices already doing business in India.

Alther consulted his superior, Hürlimann, 'who is in constant personal contact with the managers of practically all the big French companies'. Hürlimann, however, thought there was no French company that fitted New India's needs. Alther then approached Franz Schäfer, general director of the Magdeburg Fire Insurance Company, to see if he might be interested.[45] Although the Indian business was profitable and attractive, Schäfer expressed reservations. Schäfer had recently turned down a proposal from Sedgwick Collins to act as the UK agency for the Magdeburg in England, and thus he was concerned that Sedgwick Collins, who represented the New India in the UK, might advise Duff against doing business with the Germans. Schäfer also worried about clashing with British insurers in India and upsetting his company's pending application for full membership of the Fire Offices Committee. Last, but not least, he doubted whether the management of the New India was

---

42 SRCA, 10.119 090.01, Alther to Duff (7 November 1923), Swiss Re to the New India Assurance Company (30 October 1924).

43 SRCA, 10.119 090.01, Duff to Alther (1 January 1927).

44 SRCA, 10.119 090.01, Notes on interview between Duff and Alther (14 January 1927).

45 SRCA, 10.119 090.01, Alther to Schäfer (19 January 1927).

'conservative' enough. The New India's recent losses in the US pointed to a lack of experience and a certain recklessness (*Draufgängertum*).[46] In his reply, Alther admitted that he knew Duff only 'superficially', having met him briefly twice. Nevertheless, Alther believed that it would not be difficult to obtain reliable information about Duff and his company in England. On his next trip to London, Hürlimann checked this out with J. J. Atkinson, the general manager of the Royal, one of the world's largest insurance companies.[47]

Despite hectic rounds of activity, negotiating over terms, collecting information about market conditions, checking company results and the reputations of managers, nothing transpired until in 1929 the Swiss Re obtained an agreement to participate in a small life reinsurance treaty with the New India Company. Alther, however, had to wait until 1934 before his company finally received a share of the lucrative fire reinsurance treaty on Indian business, for which the Swiss Re reciprocated by giving the New India shares of two treaties on Dutch and Italian risks.[48] Suspicions about the management of the New India had been eventually allayed by a combination of confidential enquiries together with balance sheet evidence of consistently good results on Indian risks insured by the New India, data that reinforced the received wisdom in London about the quality of Indian business.

3. 'Commercialism' in inter-war reinsurance?

The exchanges between the Swiss Re and the New India Company indicate that sometimes a long negotiation was required to obtain an agreement satisfactory for all sides, and that relations between companies and brokers could complicate matters and easily undermine any mutual trust that the main parties might have. Treaty reinsurance, therefore, involved much more than executives gaining confidence in each other's honesty and expertise. A treaty was a complex nexus of incentives and disincentives, the result of keen bargaining, with some clauses and forms of payment favouring the reinsurer, others favouring the direct insurer. Issues included the level

[46] SRCA, 10.119 090.01, Schäfer to Alther (22 January 1927).
[47] SRCA, 10.119 090.01, Alther to Schäfer (26 January 1927).
[48] SRCA, 10.119 090.01, Alther to Duff (27 November 1929), Alther to Duff (5 June 1934), Duff to Swiss Re (29 June 1934). It is not clear whether any arrangement with the Magdeburg went ahead, but Swiss Re's business with the New India, both in India and overseas, continued to expand through the 1940s and 1950s. Balachandran, "India," 457-9.

of commission paid by the reinsurer to the cedent; the percentage of net reinsurance profits paid back to the direct insurer by the reinsurer, giving the former a stake in the profitability of a treaty; and the methods used to work out the level of the unearned premiums to be paid back by the reinsurer to the direct insurer on policies that were terminated before they expired. Other contestable points included retention limits, the distribution and quality of the risks reinsured, the promptness of settling claims, alterations to treaty conditions, the duration of treaties and the term of notice required to cancel them.[49] Given this complexity, it is hardly surprising that the asymmetric information problems at the heart of reinsurance, and the fundamental difficulty of aligning the interests of cedents, reinsurers, retrocessionaries and brokers, were not always satisfactorily resolved.

The transfer of bordereaux was regarded by reinsurers as the best means of securing an overview of the quality of the underwriting done by the direct insurer. They had been part of normative practice since the earliest days of reinsurance, but with rising competition after the First World War direct insurers tried to dispense with them in order to reduce costs. Some reinsurers stoutly resisted this. The Swiss Re continued to insist on the regular remittance of bordereaux from its cedents as a 'principle'. The practise survived to the eve of the computer age, but not far beyond. In the 1970s Julius Neave lamented the decline in the quality of information exchanged between reinsurer and cedent: 'Bordereaux are now almost relics of the past and the only reporting under a treaty normally received by the reinsurer is the quarterly statement of account'.[50]

Apathy about bordereaux already characterised some areas of reinsurance before the Second World War. In 1927, for instance, Paul Alther was horrified to learn from Duff, the New India manager, that,

> Owing to our not receiving bordereaux from a good many of the Companies which cede us Treaties, we have no method of ascertaining exactly where our liability is, or whether it may be unduly heavy in certain areas owing to the accumulation of interests under the various Treaties.

Duff himself admitted to concern about his company's liability from large fires in congested areas due to this lack of information.[51]

---

49 Cruciger, *Was muss der Werbemann*.

50 Neave, *Speaking of Reinsurance*, 4, 26

51 SRCA, 10.119 090.01, Duff to Alther (14 April 1927).

Asymmetric information could quickly give rise to misunderstandings. By the late nineteenth century a clause providing for arbitration was standard in almost every reinsurance treaty. In 1937 a Norwegian insurance manager, Reidar Brekke, analysed 141 disputed reinsurance cases from Denmark and Norway occurring between 1914 and 1933. Brekke found that the great majority, 123, concerned bookkeeping and administrative issues. That such pedestrian issues required arbitration suggests a fundamental lack of confidence between contracting partners.[52] Where there was little personal contact, or where contact was initiated through intermediaries, disagreements could quickly arise. These could be compounded by cultural differences where treaties were international in scope. This is illustrated by the treaty signed between the Swiss Re and the Kobe Marine Insurance Company in 1914. As noted above, this was negotiated by Wilhelm Guggenheimer, acting as intermediary for the Swiss. Guggenheimer held several meetings with the Kobe Marine president, but the managers of both companies never met in person. The war made international travel difficult and all exchanges were conducted by letter and telegram until December 1918, when a Swiss Re director, R. Hegner, made a courtesy call at the Kobe Marine office during a visit to Japan. This was followed in January 1920 by a visit to the Swiss Re offices by M. Kuroda, a Kobe Marine director. Yet neither of these meetings appear to have been critical to the treaty. Following his visit, Kuroda wrote to thank Alther for his hospitality, attaching his business card to the letter, with his private address in London scribbled in pencil on the back of the card:

> I beg to thank you very much for your kindness to me this morning. I have been very much interested by seeing of your well organised business transactions as well as fine building so well adopted [sic] the most modern improvements in every way.

Kuroda excused himself for leaving early for Lucerne. He explained that, having studied train times, he had discovered that he could see more places in Switzerland than he had expected. He apologised for leaving 'without having the honour to be introduced to your directors and manager on account of the sudden change of my departure...', and hoped that he might see Alther again in London before he returned to Japan.[53] The above visits, therefore, hardly cemented personal relations between the two companies. In fact Kobe Marine's general manager, Saburo Miki, who had been

---

52 *The Review* (26 November 1937), 1205-6.

53 SRCA, 10.135 486.02, Kuroda to Alther (10 January 1920).

the principle correspondent since the treaty commenced, did not visit Zurich until October 1921, and even then he was missed by Swiss Re's general manager Hürlimann, who was in France at the time.

The Kobe Marine case shows how treaty reinsurance could operate over several years in the absence of face-to-face contact between senior executives of the companies concerned, despite the prevailing narrative about the importance of such contact. This was not because the relationship ran smoothly. At the outset, the Swiss Re became alarmed at a unilateral reduction made by the Japanese in the duration of the treaty from five years to two. This was quickly reversed, but for several years the Swiss continued to be irritated by the frequent attempts by the Kobe Marine to make what the former regarded as unwarranted or undesirable alterations to the treaty.[54] Nevertheless the treaty was renewed in 1918 and business with the Kobe Marine continued through to the Second World War, by which time Swiss Re's connections in Japan had become much more extensive.

Cultural barriers also existed within European reinsurance that could disrupt normative practice. Brokers in particular might be caught between the practices of European reinsurers and those of UK cedents. For reinsurance brokers trying to maintain goodwill with the large British companies who were their principle clients, the prompt payment of reinsurance claims was crucial. The correspondence of Heckscher & Pearson, the largest international reinsurance broker before the First World War, reveals a range of threats and inducements used to persuade French, German, Austrian, Hungarian and Russian companies to pay their reinsurance liabilities to British fire insurers promptly. The latter expected latitude and 'fairness' rather than what they deemed to be the Europeans' legalistic approach to settling claims.[55]

These differences are also evident in the treaty signed in 1889 between the Fire Insurance Association of London and the Hanseatische Feuer Versicherungs-Gesellschaft of Hamburg. The treaty stated that 'it is hereby … understood that the Hanseatic shall in every case to which this treaty applies, and in proportion to its reinsurance, follow the fortunes of the Association, as if, so to speak,

---

54 SRCA, 10.135 486.02, Swiss Re to Kobe Marine (22 December 1919).

55 London Metropolitan Archive, Heckscher & Pearson, General Foreign Letter Book, fols. 84, 100, letters to the Prussian Fire Insurance Company (4 December, 20 December 1877).

the two companies formed only one…'[56] Another clause insisted that all disputes were to be settled

> in an equitable rather than in a strictly legal interpretation of the commissions of this treaty, and in such cases the parties agree to submit to the decision of three arbitrators. The arbitrators will not have to undergo any judicial formalities, and can abstain from following the strict rules of the Law.[57]

The importance of 'fairness and equitable treatment' was also repeatedly pressed on the Swiss Re by the Lancashire Insurance Company during the latter's huge overseas expansion between the 1860s and the 1890s.[58] The connection was probably the Swiss Re's longest standing one with an English office. The initial treaty of 1865 lasted just 12 months, but further treaties were signed in 1871 and 1875.[59] In 1889 two new treaties were agreed for British and Canadian risks respectively.

Throughout this long relationship there is little evidence that the managers of both companies ever knew each other well. During negotiations to revise the Canada treaty in the early 1890s it became clear that the Swiss retained a residual suspicion of the Lancashire. Distrust, and in one case a formal dispute that went to arbitration, arose around the question of how to determine when the liability of the reinsurer commenced.[60] The Swiss protested when the Lancashire proposed to release its Canadian agents from their obligation under the treaty to reinsure only with the Swiss Re.[61] The latter were also puzzled about why the Lancashire ceded to them surplus lines on complex industrial property, while insuring different parts of the same risk at different rates. This sub-division and variable rating of industrial risks was an established British underwriting practice that stretched back to the industrial revolution, but it confounded and worried the Swiss in equal measure.[62] The problem

---

56 SRCA, 10.101. 628.01, Treaty between the Fire Insurance Association of London and the Hanseatische Feuer Versicherungsgesellschaft of Hamburg (10 September 1889), article 13.

57 SRCA, 10.101. 628.01, Treaty between the Fire Insurance Association of London and the Hanseatische Feuer Versicherungsgesellschaft of Hamburg (10 September 1889), article 14.

58 From 1868 the Lancashire company's fire insurance premiums rose tenfold to reach £922,487 by 1892. Calculated from Liverpool Record Office (hereafter LRO), Lancashire Insurance Company, Minutes of Annual General Meetings.

59 SRCA, 10.120 568.04; 10.120 568.11; 10.120 568.12.

60 SRCA, 10.120 568.04**,** George Stuart to Swiss Re (17 December 1889).

61 SRCA, 10.120 568.04**,** Digby Johnson to Swiss Re (15 July 1893).

62 Pearson, *Insuring the Industrial Revolution*, 300-22.

was exacerbated because the Swiss Re had no first-hand information about the liabilities it was accepting on risks insured by the Lancashire's agents in Canada.[63]

Further concerns arose when the Lancashire proposed extending the Canada treaty to cover large and hazardous industrial risks that the Lancashire had acquired through its acquisition of companies in the US. The proposal was wisely resisted.[64] When the Swiss Re consulted Theodor Letton, the US branch manager of the Prussian National Insurance Company, one of its closest treaty partners, he warned them off the risks in the bluntest terms. This business had brought the Lancashire only losses and was widely regarded in American insurance circles as a 'blunder'. There were doubts about the capability and honesty of the Lancashire's managers both at home and in the US.[65] The Swiss Re took heed of Letton's warning. The Canada treaty was continued, though the end proved to be not far off. The Lancashire was eventually sold to the Royal Insurance Company in 1901.[66]

Letton's information bolstered the stance taken by the Swiss Re. In these and earlier negotiations both parties argued upon the strength of their respective underwriting results. Poor results led to increasing resistance by the Swiss Re over the terms by which the large US risks would be reinsured. Good results strengthened the hand of the Lancashire when suggesting changes to the treaty. Throughout the history of the Lancashire-Swiss Re relationship there was a coolness and distance between the parties in their discussions, which were conducted in a purely business-like manner. There was no evidence of personal networking effects in this corner of reinsurance.

4. Conclusion

The evidence presented above indicates that there has been a consistent narrative of what constituted normative practice in reinsurance throughout its history, namely that the industry developed successfully on the basis of personal connections and high-trust relations between senior executives of reinsurance companies and their

---

63 SRCA, 10.120 568.04, H. Osborne Essex to Swiss Re (26 June 1890).

64 SRCA, 10.120 568.04, Digby Johnson to Swiss Re (15 July, 25 July, 2 August 1893).

65 SRCA, 10.120 568.04, Theodore W. Letton to W. Wasels (11 November 1892).

66 LRO, Lancashire Insurance Company, Minutes of Annual General Meetings. The Lancashire's fire insurance premiums fell by 23 per cent between 1892 and 1900.

clients, and utmost good faith in the contracts that they signed. Our analysis has also shown that there have been several periods - 1930s, 1970s, 1990s, 2010s - when contemporaries have warned of the imminent demise of these normative practices due to product or process innovations, increasing competition, the rise of litigiousness, or structural changes in the market.

However, our case studies also suggest that there was probably never a sustained period when personal relations were paramount, when reinsurers enjoyed adequate information about the risks they were accepting, and when bargaining over contracts was not tough or based on 'commercial' principles. Reinsurance treaties could function without a close social understanding developing between the managers of partner companies. This was evident in Swiss Re's deal with the Kobe Marine, whose general manager did not visit Zurich until eight years after the treaty had commenced. It was also evident in the Swiss Re's negotiations with the New India Company, which lasted for years without Swiss Re's Alther ever becoming well acquainted with Duff, his counterpart in Bombay. Indeed, one of the Swiss Re's most durable treaty partnerships, that with the Lancashire company, was not founded on any intimate acquaintances between managers, and was marked at various intervals by coolness and a degree of suspicion.

From the birth of their company in 1864 the directors of the Swiss Re emphasised commercial prudence in judging risk portfolios as the deciding factor in accepting contracts: 'die Grundsätze grösster Vorsicht im Eingehen unserer Verbindungen und das Festhalten, lieber keines als schlechtes Aliment zu nehmen'.[67] However, the instinct to question proposals and double check information received from ceding companies as likely manifested a level of distrust rather than trust. Moreover, when reinsurers did not know their cedents and could not find persons who could vouch for them, they often turned to recognised ciphers of reputation, most notably membership of the world's leading tariff association, the Fire Offices Committee (FOC) in London.[68] In 1927, for instance, when Paul Alther of Swiss Re was advocating the Magdeburg Fire Insurance Company as a potential partner for the

---

[67] '…the principles [are] to exercise the greatest caution in dealings with our connections, and to stand by the position [that it is] better to accept no risks than bad risks.' SRCA, Swiss Re, Annual Report (1864), 4.

[68] Westall, "David and Goliath."

New India company, he pointed to its membership of the FOC as evidence of the solidity of the German company.[69]

The evidence presented above, therefore, suggests that international reinsurance developed, not always because of the potency of personal connections, but often in spite of high levels of distrust and the sharper, more business-like exchanges that some felt were already a feature of the industry between the world wars, if not before. From the late nineteenth century the growing size, complexity and competitiveness of reinsurance put pressure on close and durable relations between insurers and reinsurers. These pressures became more intense with the rise of XL reinsurance, the demand for reciprocity, and the new uncertainties of the economic and political environment after the First World War. The factors undermining what was regarded as normative practice appear to have been reinforced in the 1970s by the advent of computerization and the statistical modelling of risk, in the 1990s by the rise of brokered business and the shift towards litigation in settling disputes, and in the 2000s by the growth of alternative risk transfer products and new risk assessment technologies.

So what should one make of the claims made periodically through the history of reinsurance about the threats to normative practice? If reinsurance had always been 'commercial', was the prevailing narrative about it as a business built upon trust and personal connections simply fallacious? Perceptions of social relations and behavioural norms can change over time, even though actors may feel that they remain traditional and static. It may be that observers of reinsurance were affected by the tendency to remember what came easiest to recall, what Kahneman has called the 'availability heuristic'.[70] Those writing in the 1930s, reflecting on the industry before World War One, and those writing at the end of the twentieth century looking back to earlier decades, were not trying to mislead by arguing for the importance of personal relations in reinsurance, and by pointing to the developments that threatened this. However, they posited normative practices as the polar and mutually exclusive opposite of tougher and more commercial practices that would replace and destroy

---

[69] SRCA, 10.119 090.01, Alther to Duff (19 January 1927). As it subsequently transpired, however, the Magdeburg's application for full FOC membership was still pending at the time.

[70] Kahneman, *Thinking Fast and Slow*, 129-30, 138-9. See also Taleb, *Black Swan*, 63, 70-3; Syed, *Black Box Thinking*, 146-7.

traditional ways, when in fact the evidence suggests that both approaches to reinsurance had coexisted for most of its history.

What reinsurers meant by normative practice was never standardised, which is hardly surprising given the wide range of business environments that they operated in around the globe.[71] As we have seen in our case studies, cultural differences between reinsurance treaty partners from different nations could shape divergent understandings of social relations, trust and good faith. The evidence, however, also indicates that the narrative of normative practice was not mythical, that interaction between individual managers was important in cementing deals that then developed into longer term relations, and that constant travelling, visits and informal socialising remained characteristics throughout the history of reinsurance. Yet the evidence also suggests that trust was a sufficient but not a necessary condition for the business to grow. As our case studies show, at the level of negotiating contracts interaction between treaty partners was often conducted on a technical and impersonal basis. It may be that social relationships were most relevant among the highest ranks of management – presidents, vice-presidents and senior executives - and that these could not be delegated to the tier of operational managers, those directly involved in tough bargaining over the details of treaties. If there was a distinction between different levels of management in this way, this can only be established through further research.[72]

For most of its history reinsurance was both a 'social' and a 'commercial' business. Those who wrote about normative practices from the former perspective, and regarded the latter as an existential threat to those practices, thus constructed a narrative that partially misremembered the past. This finding may have wider implications for our understanding of business history. Although requiring careful assessment by the scholar, narratives may have exercised a positive effect on the development of financial services, facilitating the production and marketing of

---

[71] In his preface to a 1939 dissertation on social relations in business by a Swiss Re employee, Charles Simon asserted that friendship was 'a precious support for trust and good faith in business'. The dissertation author, however, failed to explain why such relations, 'des rapports plus intimes', were important in reinsurance. Rogivue, *L'Amitié D'Affaires*, 48. I am grateful to an anonymous referee for this reference.

[72] My thanks to Niels-Viggo Haueter for this suggestion. He points to the extensive correspondence between the Kobe Marine and the Swiss Re later in the twentieth century, and the long friendship between Kobe's owner family Okazaki and Swiss Re's top management, as evidence of this.

invisible trust-based products where a personal relationship between contracting parties and accepted norms of corporate and individual behaviour were perceived as keys to business success. Without legacy stories of solidity and reputation, of trust-based relationships, indeed of corporate culture, the longevity and durability of some financial institutions can less readily be explained. Our investigation, however, points to the importance of evaluating such narratives derived from contemporary recollections when analysing historical trends. If this type of evaluation is pursued, it has the potential to generate knowledge about how the past is viewed in the present, and how people may reinterpret the past in ways that are consonant with their beliefs and their understanding of the present.

Acknowledgments

An earlier version of this paper was presented at the XVIII World Economic History Congress, Boston 2018, and has benefitted from the comments of participants, as well as from the valuable suggestions of the editor of this journal and two anonymous referees. The author is also most grateful to Swiss Re and their outstanding corporate history team for the support of this research. The views expressed in this article are the author's and not those of Swiss Re.

Disclosure statement

No potential conflict of interest was reported by the author.

Notes on contributor

Robin Pearson is Professor of Economic History at the University of Hull, UK. He has published widely on international economic and business history, with a focus on insurance. Books include *Insuring the Industrial Revolution: Fire Insurance and the British Economy, 1700-1850* (2004), which won the Wadsworth Prize for Business History; and *Shareholder Democracies? Corporate Governance in Britain and Ireland before 1850* (2012), co-authored with Mark Freeman and James Taylor, which was awarded the Ralph Gomory Prize for Business History. Current projects include "Global Cultures of Risk: Insurance in Non-Western Contexts 1870-1980", with Martin Lengwiler (Basel), funded by the Swiss National Science Foundation.

References

Bähr, Johannes, and Christopher Kopper. *Munich Re: The Company History 1880-1980*. Munich: C.H.Beck, 2016.

Balachandran, G. "India: From a Colonial Outpost to a Leading Market." In *World Insurance: The Evolution of a Global Risk Network*, edited by Peter Borscheid and Niels Viggo Haueter, 444-71. Oxford: Oxford University Press, 2012.

Cruciger, Gustav. *Was muss der Werbemann im Aussendienst und jeder Versicherungsbeamte von der Rückversicherung wissen?* Vol.1. Munich: Versicherungserfolgsbibliothek, 2nd edition, 1929.

Greif, Avner. *Institutions and the Path to the Modern Economy*. (Cambridge: Cambridge University Press, 2006).

Gugerli, David. "Cooperation and Competition: Organization and Risks in the Reinsurance Business 1860-2010." In *The Value of Risk: Swiss Re and the History of Reinsurance*, edited by Harold James, 145-233. Oxford: Oxford University Press, 2013.

Haueter, Niels Viggo and Jones, Geoffrey. "Risk and Reinsurance." In *Managing Risk in Reinsurance: From City Fires to Global Warming*, edited by N.V. Haueter and G. Jones, 1-46. Oxford: Oxford University Press, 2017.

Hollitscher, Carl Heinrich von. *Internationale Rückversicherung*. Berlin: Veröffentlichungen des Deutschen Vereins für Versicherungswissenschaft, no. 48. 1931.

Hollitscher & Gottlieb. *Űber 100 Jahre Rückversicherungsvermittlung.* Vienna: privately printed, 1968. (DELETE?)

Hume, David. *A Treatise of Human Nature* (Oxford: Oxford University Press, 1978).

Jarzabkowski, Paula, Rebecca Bednarek and Paul Spee. *Making a Market for Acts of God: The Practice of Risk Trading in the Global Reinsurance Industry*. Oxford: Oxford University Press, 2015.

Kahneman, Daniel. *Thinking Fast and Slow*. London: Penguin, 2011.

Kopper, Christopher. "From Actuaries to Scientific Research: The Evolution of Risk Assessments at the Munich Re." In *Highlights on Reinsurance History*, edited by André Straus and Leonardo Caruana de las Cagigas, 79-92. Brussels: Peter Lang, 2017.

Kyrtsis, Alexander-Andreas. "The Rise and Decline of Treaty Reinsurance: Changing Roles of Reinsurers as Financial Service Providers." In *Managing Risk in*

Reinsurance: From City Fires to Global Warming, edited by N.V. Haueter and G. Jones, 144-81. Oxford: Oxford University Press, 2017.

Neave, Julius. *Speaking of Reinsurance*. Brentford: Kluwer Publishing, 1980.

Neave, Julius. *Interviews*. National Life Stories, C409/34, British Library National Sound Archive, 1989/1990, https://sounds.bl.uk/related-content/TRANSCRIPTS.

Pearson, Robin. "The Development of Reinsurance Markets in Europe during the Nineteenth Century." *Journal of European Economic History* 24, no.3 (1995): 557-72.

Pearson, Robin. "The Birth Pains of a Global Reinsurer: Swiss Re of Zürich, 1864-79." *Financial History Review* 8, no. 1 (2001): 27-47.

Pearson, Robin. "Growth, Crisis and Change in the Insurance Industry: A Retrospect." *Accounting, Business and Financial History* 12, no.3 (2002): 487-504.

Pearson, Robin. *Insuring the Industrial Revolution: Fire Insurance in Great Britain 1700-1850*. Aldershot: Ashgate, 2004.

Pearson, Robin. "The Evolution of the Industry Structure." In *Managing Risk in Reinsurance: From City Fires to Global Warming*, edited by N.V. Haueter and G. Jones, 70-91. Oxford: Oxford University Press, 2017.

Postema, Gerald J. "Custom, Normative Practice, and the Law." *Duke Law Journal* 62, no. 3 (2012): 707-38.

Röder, Tilmann J. "From Gentleman'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*, edited by N.V. Haueter and G. Jones, 182-205. Oxford: Oxford University Press, 2017.

Rogivue, Edmond. *L'Amitié D'Affaires: Essai de sociologie et économique sur la corrélation des affinités et des intérêts dans les échanges*. Lausanne: Librairie de Droit F. Roth, 1939.

Rohland, Eleonora. *Sharing the Risk: Fire, Climate and Disaster. Swiss Re, 1864-1906*. Lancaster: Crucible Books, 2011.

Schumpeter, Joseph A. *Capitalism, Socialism and Democracy*. London: Routledge, 1994. (DELETE?)

Simon, Charles. *Bilder und Figuren aus Vergangenen Zeiten, in Vorträge und Veröffentlichungen (1926-1937).* Unpublished typescript, SRCA, 10.101 517.02.

Stammel, Christine. *Waving the Gentlemen's Business Goodbye: From Global Deals to Global Disputes in the London Reinsurance Market*. Frankfurt: Peter Lang, 1998.

Straumann, Tobias. "The Invisible Giant: The Story of Swiss Re 1863-2013." In *The Value of Risk: Swiss Re and the History of Reinsurance*, edited by Harold James, 237-352 . Oxford: Oxford University Press, 2013.

Syed, Matthew. *Black Box Thinking: Marginal Gains and the Secret of High Performance*. London: John Murray, 2015.

Taleb, Nassim Nicholas. *The Black Swan: The Impact of the Highly Improbable*. London: Penguin, 2007.

Thomas, Steven W. "Utmost Good Faith in Reinsurance: A Tradition in need of Adjustment." *Duke Law Journal* 41, no. 6 (1992): 1548-97.

Vec, Miloš. "Reinsurance Law as an Autonomous Regulatory Regime? Resistance to Codification and Avoidance of State Jurisdiction in the Twentieth Century." In *Managing Risk in Reinsurance: From City Fires to Global Warming*, edited by N.V. Haueter and G. Jones, 206-29. Oxford: Oxford University Press, 2017.

Watterson, Stephen. "*Carter v Boehm* (1766)." In *Landmark Cases in the Law of Contract*, edited by Charles Mitchell and Paul Mitchell, 59-118. Oxford and Portland: Hart Publishing, 2008.

Westall, Oliver. "David and Goliath: The Fire Offices' Committee and Non-Tariff Competition, 1898-1907." In *The Historian and the Business of Insurance*, edited by O. M. Westall, 130-54. Manchester: Manchester University Press, 1984.

Werner, Stephan. "Rückversicherung in der Weltwirtschaftskrise: Performanceanalyse Professioneller Rückversicherungsunternehmen in der Schaden- und Unfallversicherung, 1924-1935." Unpublished Magisterarbeit, Ludwig-Maximilians Universität München, 2009.

Werner, Welf. "Hurricane Betsy and the Malfunctioning of the London Reinsurance Market: An Analysis of the Transatlantic Reinsurance Trade, 1949-1989." *Financial History Review* 14, no.1 (2007): 7-28.

Yates, Joanne. *Structuring the Information Age: Life Insurance and Technology in the Twentieth Century*. Baltimore, Md.: Johns Hopkins University Press, 2005.

Yoneyama, Takau. "The Great Kanto Earthquake and the Response of Insurance Companies: A Historical Lesson on the Impact of a Major Disaster." *Hitotsubashi Journal of Commerce and Management* 43, no.1 (2009): 27-45.

Notes