

Governance and institutional change in marine insurance, 1350-1850

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Abstract

This article explores the development and diffusion of market governance institutions in the marine insurance industry as the practice of insurance spread from its early origins in medieval Italy throughout the Atlantic world. Informal governance mechanisms provided the foundation for the development of insurance law administered by specialist courts. Efforts to tax and regulate the industry frequently met with limited success, both because of interjurisdictional competition and because merchants and brokers could to some extent opt out of the formal system. The divergence in organizational form across countries illustrates the potential for path-dependent institutional change.

1. Introduction

Many market transactions are plagued by agency problems that give rise to a ‘fundamental problem of exchange’ (Greif 2000), and in such cases, markets can function effectively only if suitable market governance institutions enable market participants to overcome incentives for opportunism. Recent research has studied the role of both formal public and private institutions in the organization and governance of markets. Some market governance institutions are deliberately designed by entrepreneurs or lawmakers, while other institutions may begin as ‘spontaneous’ informal local orders or customs that may eventually ‘harden’ into formal rules. ‘Good’ institutions can spread as people copy and adapt useful institutional elements from their neighbors, but many authors have also emphasized that institutional change is a fundamentally historical process in which a variety of paths of institutional development may be possible, and efforts to transplant or copy institutions can have unanticipated consequences.

This article explores how market governance institutions developed in the marine insurance industry as the practice of insurance spread from its early origins in medieval Italy. The insurance contract – the exchange of a premium for the promise of an indemnity in the event of a specified loss – enabled risk-averse merchants to pursue high-risk, high-return trading opportunities that they might otherwise have foregone. However, insurance transactions were plagued by serious agency problems and information

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asymmetries that created a need for enforcement institutions to govern behavior and mediate disputes.

The next section describes the origins of insurance and outlines the major agency problems inherent in marine insurance transactions. Section 3 describes the informal governance mechanisms that emerged in response to these agency problems, and how these became supplemented by formal insurance law. Section 4 discusses the efforts of political authorities to regulate the industry, and why such efforts frequently met with limited success. Section 5 describes how a variety of organizational forms emerged. Section 6 concludes.

2. Early Development of Marine Insurance

During the thirteenth and early fourteenth century, the European system of trade based on traveling merchants, caravan trade and the Champagne fairs was in decline, and trade was increasingly carried out by sedentary merchants who employed agents in other ports to handle the sale of their merchandise and the purchase of return cargoes. Much of this trade was carried on by sea. A vessel laden with cargo represented a substantial capital outlay, and merchant vessels faced a wide variety of dangers including storms, fire, piracy, and during wartime, enemy capture. Merchants therefore sought ways to mitigate these risks.

When possible, merchants could reduce the probability of large losses by spreading their trade among a variety of destinations, and sending their goods in smaller parcels on several different vessels. However, this strategy had obvious drawbacks, such as the possible lack of multiple vessels bound to a desired destination, and the need to negotiate with multiple ship-owners, and to entrust goods to a larger number of agents. To reduce the danger of enemy capture, vessels sometimes traveled in convoy, but this too entailed costs: the convoy could depart only when its escort was ready to sail, and could travel only as fast as the slowest ship. Furthermore, the arrival of many vessels at once could glut the destination market, driving down the sale price of goods while driving up the price of supplies and cargo for the return voyage (Barbour 1929).

Since ancient times, merchants had used ‘sea loans’ - loans which were to be repaid only if the vessel arrived safely - as a way of sharing risk. Essentially, a sea loan bundled the provision of credit to a merchant or shipowner with insurance against sea risk, the rate of interest on the loan being set high enough to compensate for the risk. After sea loans were condemned as usurious by Pope Gregory IX in 1236, merchants employed a variety of artful disguises to mimic their function. They also devised contracts which came close to true insurance contracts, in that the transfer of risk was the primary object, such as a fictitious loan to the underwriter to be ‘repaid’ to the merchant only if the vessel or goods did *not* arrive safely.²

² Trennery (1926) discusses ancient precursors to insurance. Van Niekerk (1998, p.16-27) describes the stages in the evolution of insurance from maritime loans.

An alternative method of sharing risk was a *commenda* contract, in which a sedentary merchant entered into partnership with a traveling merchant, providing funds in exchange for a share of the profit on the voyage, and thus exposing himself to both sea risk and commercial risk. Yadira González de Lara (2005) has pointed out that although *commenda* contracts were superior to sea loans from a risk-sharing perspective, they required the provider of capital to have full information about commercial profits. Thus, sea loans may have functioned as a second-best response in situations where there was hidden information about the profits from a venture (whereas the arrival of a vessel in port was readily verifiable). In both cases, however, the primary function of the contract was the provision of capital to an entrepreneur, and the scope of risk-sharing was limited to the transfer of risk from a borrower to the lender or partner. As such, from a risk-spreading perspective, both sea loans and *commenda* contracts were imperfect substitutes for true insurance contracts in which the primary object was to spread risk among many people.

The earliest recorded examples of modern insurance contracts - involving the transfer of maritime risk on a cargo or vessel (or both) from a merchant to a group of underwriters in exchange for a premium - date from the Italian city-states in the mid-fourteenth century.³ The transactions were often intermediated by brokers whose role was to find a group of underwriters to cover a risk, negotiate the premium, and draw up the policy. The underwriters signed their names on the policy along with the amount they were willing to cover. Because a knowledge of trade was indispensable for evaluating risks, many underwriters were typically merchants themselves, so this method of insurance functioned in part as a means of spreading risk within the community of merchants.

By the early fifteenth century, marine insurance had become common in the major Italian ports, and the many Italian merchants trading in London, Amsterdam and other European ports were insuring their cargoes to and from Italy. In 1455, for example, the Venetian merchant Pier Francesco de' Medici insured (in Venice) wool that he was importing from England on two Venetian galleys.⁴ The earliest known Dutch and English policies were also for trade with Italy, and the underwriter on an early insurance transaction recorded in Bruges in 1370 was Genoese.⁵ By the sixteenth century, insurance had spread to Britain, France, Holland, and Spain.

Over time, as patterns of trade shifted, the location of the major insurance markets also changed. In 1592, an Italian merchant in London advised his correspondent in Venice that in London 'there would be no lack of insurers, but in case of damages it is painful to try and collect the claim, and, as the *in faith* practice is not suitable for us, we advise you to insure there [in Venice] and spend rather one or two percent more and feel sure that you can recover in case of disaster.'⁶ But by the seventeenth century, with Venetian trade in decline, Venetians began increasingly to insure in France and in Amsterdam, which by the late sixteenth century had become the most important insurance market in

³ de Roover (1945); Nelli (1972).

⁴ Stefani (1958), p.84.

⁵ Vance (1908), p.8, Go (2009), p.147; Wright and Fayle (1928), p.137.

⁶ Bartolomeo Corsini to Stefano Patti, 29 April 1592, quoted by Stefani (1958), p.104.

Europe.⁷ During the seventeenth century, many English ships were insured in Amsterdam, although the premium rates were slightly higher, because the Dutch underwriters were perceived as more secure and reputable.⁸ In the eighteenth century, however, the focus shifted to London, where Lloyd's coffee-house emerged as the leading marine insurance marketplace and attracted orders for insurance from merchants across Europe and America.⁹

Because of the international nature of the business, there was active competition between underwriting centres. A cargo of goods consigned from an agent in port X to a merchant in port Y might be insured either at X or Y, or it might be insured at a third port as a 'cross risk' (a risk between two foreign ports). *Ceteris paribus*, a merchant would prefer to insure locally, thereby avoiding the need to pay an agent to carry out the transaction, and facilitating the resolution of disputes and recovery of funds in case of a loss. However, insuring at a port other than the port of origin of the goods meant running the risk that the news of a loss would arrive before the order to insure, leaving the merchant uninsured. Merchants therefore frequently directed their agents in other ports to purchase insurance on their behalf. In 1438, for example, a Venetian merchant reminded his cousin in Seville that 'if you should ship goods of mine from one hundred ducats upwards, I want you to insure them there, if you can, and if you cannot, then write to me in time, that I may have them insured here.'¹⁰

In deciding where to insure, the degree of liquidity in the market, the reputation of the market as a whole (the good faith of the underwriters, speed of settlement of losses), the regulatory environment (taxes and restrictions on trade), and the availability of impartial and swift arbitration in case of a dispute were also important considerations. Merchants often found they could get the best rates by insuring at the most established insurance centres, where the concentration of underwriting expertise and capital ensured a competitive price. For example, in the sixteenth century, Portuguese merchants regularly insured their trade with Brazil in Antwerp and Amsterdam, even when the Dutch and Portuguese were at war;¹¹ and merchants in Britain's American colonies frequently insured their goods in London rather than locally, even on shipments to the Caribbean, despite the slow speed of communication and the time and trouble required to collect losses.¹² In 1732, merchant Robert Dugard of Rouen chose to insure a return voyage to Canada in Holland for five percent, rather than in Rouen, where he would have had to pay seven percent.¹³ It was also not uncommon for a merchant to purchase insurance in multiple ports on the same voyage. All of this made for a competitive and integrated market.

⁷ Stefani (1958), p.112; Go (2009).

⁸ Barbour (1929), p.581.

⁹ In 1755, a merchant noted that 'the Business of Insurance is carried to a much greater Extent in London, than in any other City in Europe. Insurances daily are made here on Adventures by foreign Ships, as well as others whose Risks are wholly determinable in foreign Dominions.' (Magens 1755, Vol.1, p.v).

¹⁰ Guglielmo Querini to Carlo Morosini, 29 March 1438, quoted by Stefani (1958), p.82.

¹¹ Ebert (2011).

¹² Kingston (2007).

¹³ Miquelon (1978), p.30

2.1. Agency problems

For everyone concerned with insurance, information was crucial. To determine what premiums to charge, underwriters needed to be knowledgeable about a wide range of topics including the various kinds of vessels, navigation and trade routes, cargoes, and commercial practices in general, and to have access to prompt and accurate information about the latest movements and condition of particular vessels, as well as any political or military developments that might affect the risk on particular routes.

In addition to the dangers of the sea and of enemy capture, however, underwriters had to worry about moral hazard on the part of the insured. For example, an unscrupulous merchant could over-insure a cargo and then deliberately sink the vessel. In some cases, merchants fraudulently attempted to insure ships that they already knew (or had reason to suspect) had been lost. More subtly, after purchasing insurance merchants (or captains acting on their orders) might be more willing to take risks, such as failing to adequately maintain or provision a vessel, sending an unseaworthy vessel to sea, or attempting to run through a blockade. In the words of one underwriter,

The *grand*, and most *essential* Point to be guarded against, in all Matters of Insurance, is FRAUD ... Underwriters [are] liable to every Sort of Fallacy and Perfidy, which the Ingenuity and Corruption of Mankind can contrive.¹⁴

Underwriters also had to contend with significant adverse selection problems. A poorly manned or fitted out ship, or one with rotten timbers or an inexperienced crew, would be less likely to survive a storm. One with an incompetent or alcoholic captain would be more likely to run aground or miss its intended landfall. One that could sail close to the wind would have a better chance of outrunning enemy privateers. One with the right papers would be less likely to be taken as a prize, or condemned in a prize court if taken; and so on. Although underwriters made diligent efforts to obtain the latest information that might affect risks, merchants often knew more about some aspects of the risk, and had incentives to conceal negative private information in order to try to keep the premium low.

Merchants purchasing insurance, on the other hand, also had to consider the possibility of opportunism on the part of the underwriters. The value of the policy ultimately depended on whether the underwriters would pay losses, and the financial stability of individual underwriters was frequently uncertain, especially in wartime. Underwriters could also attempt to delay or avoid payment of losses by contesting claims and demanding proofs that might be difficult to come by given the slow speed of communication, and the difficulty of proving what had happened at sea.

¹⁴ Weskett (1781), p.xxvi-xxviii.

In the light of these agency problems, it was crucial for both parties to a marine insurance contract to be able to trust each other to act in ‘utmost good faith’, and the reputation of trading partners was a paramount concern. Merchants were willing to pay higher premiums to underwriters who could be relied on to pay claims promptly and whom they perceived to be financially secure. Underwriters, likewise, tried to confine their underwriting to merchants they could trust.

3. Governance of insurance transactions

By the fifteenth century, the wording of Italian policies had become relatively standardized, and by the sixteenth century, the use of printed policies had become common, with spaces left for the broker to fill in the idiosyncratic details of the risk - the name of the vessel, its origin and destination, the rate of premium and sum assured, and any special clauses.¹⁵ As the practice of insurance spread from Italy to Spain, Holland, France, Britain and elsewhere, rather than re-invent insurance from scratch, merchants in these countries simply borrowed and adapted the Italian innovation, including the contracts, routines and customs they learned from the Italian merchants with whom they did business. As a result, the institutions governing marine insurance in different countries developed from a relatively uniform starting point.

Over time, however, variations emerged both in the form of the insurance contract, in the informal ‘customary’ rules and practices that merchants followed, and in the regulations promulgated by political authorities. It is hard to be precise about the degree of divergence in these various kinds of ‘rules’. In England, where the earliest policies were written in Italian during the mid-sixteenth century, there was some variation in policy forms during the sixteenth century, but a relatively standardized form had emerged by the end of the century.¹⁶ Magens (1755) reproduces a variety of policy forms from different localities at various times, revealing that while the core of the policy was relatively uniform and universal, some variations had also crept into the details of the form of the policy and specific conditions. Kadens (2012) argues that the degree of variation in the informal customs merchants used to ‘fill the gaps’ in the contract was likely considerably greater. We can also observe differences (as well as similarities) in the regulations and judicial structures across localities, but it is often difficult to be sure whether these regulations reflected formalizations of differences in local customs, or whether they represented attempts to change existing practice or to bring about uniformity where there was variation. And in any case, as we will see below, it is clear that many regulations were ignored, particularly when they clashed with merchant practice.

Notwithstanding these local variations, however, the main features of the insurance contract remained largely consistent across Europe. The perils enumerated in a late eighteenth century English policy are remarkably similar to those contained in policies from other countries and to those in Italian policies from 250 years earlier. Over time the wording of the policy, though archaic and convoluted, became ‘consecrated by centuries

¹⁵ de Roover (1945), p.198.

¹⁶ Rossi (2012); Jones (1960), p.55.

of usage. However clumsily it may be expressed, its meaning is clear, because it has “generations of legal interpretations hanging almost to every word”.¹⁷

The integrated and competitive nature of the international insurance market acted as a constraint on institutional diversity. A typical merchant would over time be party to a variety of insurance contracts both in their home port and in others, and would be made aware of any pertinent differences in practices or policies through correspondence with brokers and agents (Kadens 2012). This facilitated the spread of contractual innovations that were considered beneficial while tending to weed out undesirable innovations and harmonize rules across jurisdictions. Guido Rossi, for example, describes how in the late sixteenth century, English merchants adopted some Dutch modifications to their existing insurance practices (of largely Italian origin): ‘the close commercial relations between the two countries brought their respective rules on insurance to a remarkable level of resemblance with each other’.¹⁸ Similarly, interjurisdictional competition constrained the degree to which governments could regulate contractual terms or tax transactions: merchants who found a regulatory environment burdensome could simply insure elsewhere.

3.1 Informal governance

At first, the enforcement of insurance contracts was almost entirely informal. Indeed, in fifteenth century Venice, although most policies were issued in writing, some insurances were simply verbal agreements, relying entirely on the reputation of the participants and the broker who mediated the transaction.¹⁹ In the event of a dispute, it was usual for each party to choose a reputable merchant as an arbitrator; the two arbitrators would choose a third; and both parties would agree to abide by a majority decision of the three thus chosen. This was a cost-effective and expeditious way to deal with disputes according to mercantile custom, whereas using formal courts might be costly, slow, and arbitrary (as the judges lacked expertise in mercantile matters). In England, early policies contained a clause stating that any disputes would be referred to impartial merchants ‘without going to any lawe’, and in any case, insurance policies had no legal standing and technically there could be no remedy at law.²⁰

Brokers often played an important role in enforcing transactions. In fifteenth-century Venice brokers were already ‘an essential factor’ in the transaction of insurance business (Stefani 1958, p.83), and brokers played a key role in the marine insurance market in Amsterdam, London, and other cities. Their primary role was to draw up the policy and find underwriters, and to transmit premiums to underwriters and collect losses on behalf of the insured. For these administrative tasks, the broker earned a commission, which was usually a fixed fee plus a percentage of the premium or sum assured.

¹⁷ Wright and Fayle (1928), p.131, quoting Sir Douglas Owen.

¹⁸ Rossi (2012), p.261

¹⁹ Stefani (1958), p.83.

²⁰ Jones (1960), p.55, 59.

Yet the broker's role went beyond matching buyers and sellers. Reputable brokers offered their business only to underwriters whom they considered financially secure, and who did not quibble about details when it came to the payment of good-faith claims. Underwriters sought the business the broker had to offer, and were therefore constrained from opportunistically contesting claims too readily by the fear of developing a reputation for litigiousness. Merchants, in turn, hired reputable brokers because they could get policies underwritten by reliable underwriters more quickly, and at lower premiums, than the merchant could achieve directly; and they were aware that suspicious dealings might make it harder to place business with the broker in the future.

To be effective in this role, it was critical that brokers be able, as far as possible, to observe the detailed circumstances of a transaction and the actions of both parties. Accordingly, brokers not only effected the policy initially (so they knew what information had or had not been disclosed to the underwriter at the time the policy was made, and the terms of the policy), but they also conveyed premiums from the merchant to the underwriter, and were responsible for collecting payment from underwriters in the case of a loss (which enabled them to observe how fairly the underwriter dealt with claims). Thus, brokers played a key role in informal contract enforcement by cultivating trusting relationships with all parties.

3.2 Development of insurance law

Despite this widespread reliance on informal governance, some disputes inevitably found their way into formal courts of law. In sixteenth-century England, for example, merchants occasionally turned to formal courts when one party did not wish to submit to, or refused to abide by the results of, non-legal arbitration.²¹ As insurance grew in importance, many jurisdictions set up specialist courts to deal with insurance disputes. In 1369, a Genoese decree imposed fines on those who attempted to use the church's prohibitions on usury to have insurance disputes transferred to an ecclesiastical court, and a Barcelona ordinance of 1435 mandated the resolution of insurance disputes in specialist maritime courts (*Consols de la Mar*) rather than the royal courts.²² In Venice, the resolution of insurance disputes was assigned in 1468 to the *Consoli dei Mercanti*, a specialized court dealing with mercantile commerce.²³ In 1598, Amsterdam's merchants successfully petitioned the city government to create a specialist body to adjudicate insurance disputes, and a commission for adjudicating insurances and other maritime matters was established in Rotterdam in 1604.²⁴

These specialist courts were generally staffed by prominent merchants, shipowners, and brokers, who looked to merchant custom when deciding insurance cases. In fifteenth century Bruges, for example, judges frequently sought the opinion of prominent Italian

²¹ Vance (1908), p.13; see also Ibbetson (2008), p.293.

²² Stefani 1958, p.64, Van Niekerk (1998), p.199.

²³ Stefani (1958), p.89-90.

²⁴ Go (2009), p.95-107, p.174; Van Niekerk (1998), ch.IV.

merchants concerning the prevailing custom in insurance cases.²⁵ Because these customs had initially developed and spread within the international community of merchants, insurance law also became largely congruent across countries.

In England, an Assurance Chamber consisting of seven merchants was established in London in 1577 to hear insurance disputes. At the same time, a set of rules was drawn up codifying insurance practice. However, the Chamber proved unable to enforce its jurisdiction over insurance cases in the face of competition from other courts, or to enforce its judgments, and the formalization of the insurance code does not appear to have significantly altered existing merchant practices. In 1601, an Act of Parliament reformed the Assurance Chamber, creating a new court with 14 members, including both lawyers and merchants, to deal only with insurance disputes. However, this too fell into disuse, and merchants and underwriters continued to rely mainly on informal arbitration.²⁶ On the rare occasions when cases found their way into the King's Courts of Common Law, cases were decided in an ad-hoc fashion based on merchants' customs as represented by merchants, rather than on points of law.²⁷ As a result, there was little accumulation of a system of insurance law until the mid-eighteenth century.

In 1756, Lord Mansfield became Chief Justice of the Court of King's Bench. Like his predecessors, Mansfield sought to follow merchant custom in deciding cases. However, in explaining his decisions, he also deduced and set out the principles of insurance law, derived, according to Oldham (1992, p.455), 'from his knowledge of Continental practice and custom, refined by consultation with merchants and underwriters.' Emphasizing the core principle of 'utmost fidelity' (that neither party could profit by concealment or misrepresentation of private information), Mansfield's rulings settled issues such as the effect of deviations (voluntary or involuntary) from the planned voyage, or the breaking of warranties (representations of fact) made by the insured (for example, that the ship would sail by a certain date), including the implied warranty that the insured vessel was seaworthy.²⁸

In the eighteenth century, harmony between insurance laws in different countries was further facilitated by the publication of books setting out the rules of marine insurance. In 1755, Nicolas Magens, an experienced German merchant resident in London, published *An Essay on Insurances*, with the explicit intention of providing guidance to judges and lawmakers. The first volume described general features of insurance policies and a description of 36 'remarkable cases' illustrating key points. Many of these cases had been decided in London, but others were settled at Hamburg, Leghorn, Cadiz, and Lisbon, some in courts and some by arbitration. The second volume contained a translation into English of all the foreign insurance ordinances. In 1783, the French lawyer Balthazard Emerigon published his *Traité des Assurances et des Contrats à la Grosse*, in which he set out to elucidate the principles of French insurance law based on a wide variety of authorities and judicial decisions, but particularly on cases decided in the

²⁵ De Roover (1945), p.199.

²⁶ Jones (1960), Kepler (1975), Ibbetson (2008), Rossi (2012).

²⁷ Park (1787), p.xlii; Oldham (1992), p.453-4.

²⁸ Oldham (1992), ch.7.

Admiralty court of Marseilles. In 1787, with Mansfield's encouragement, James Allan Park published *A System of the Law of Marine Insurances*, a systematic presentation of insurance law based on hundreds of cases decided in English courts.

4. Government regulation of insurance

Political authorities frequently attempted to regulate insurance markets by restricting access to the market, restricting what kinds of property could be lawfully insured, requiring centralized registration of policies, taxing transactions, and so on. In some cases, these regulations codified and formalized existing merchant practices while in others, they represented efforts to change existing practices or impose uniformity in response to perceived abuses or allegations of fraud. By the mid-eighteenth century, substantial insurance ordinances had been passed in many commercial centres, including Barcelona (1435/1484), France (1681), Rotterdam (1721), Hamburg (1731), Bilbao (1738), Amsterdam (1744), London (1746), and Stockholm (1750).²⁹

The effectiveness of these regulations varied, but they often had limited effect, especially when they clashed with merchants' interests or practices. In Venice, for example, efforts to regulate insurance markets began as early as 1421 (with a rule forbidding insurance of foreign vessels), and legislation grew in volume during the succeeding centuries, culminating in a codification of insurance law in 1786. Many of the regulations passed, however, were largely ineffective. In 1602, for example, it was decreed that no foreign vessels purchased by Venetian subjects could be insured for more than two-thirds of their value. However, Stefani (1958, p.115) notes that 'As was usually the case, the order was barely observed'. A regulation prohibiting the insurance of cross-risks passed in 1586 was similarly ignored. In 1605, a renewed effort was made to enforce the ban on cross-risks, and rewards were offered to informants, but this prompted merchant opposition, forcing the senate to backtrack, so in 1607 the regulation was weakened substantially. Again, however, the prohibition on insurance of cross-risks was largely ignored, leading to another restatement of the regulation in 1670, before it was finally repealed in 1682.³⁰

4.1 Regulation of contracts

Governments periodically attempted to restrict the wording of insurance policies, often in an effort to compel uniformity in order to control fraud. In 1571, the Venetian government issued a regulation requiring that insurance policies be printed rather than written by hand.³¹ In 1563, the authorities in Antwerp prescribed that policies that did not follow a specific form would be legally void.³² This proved too restrictive, however, and was reversed in 1571. In 1688, Amsterdam passed a regulation to standardize the policies used by different brokers, including penalties for brokers who used any other form. Policies also had to be signed by the Secretary of the Chamber of Insurance, for a

²⁹ Magens (1755), Vol. 2.

³⁰ Stefani (1958), p.116-7.

³¹ Stefani (1958), p.104.

³² Van Niekerk (1998), p.486-7.

fee. In 1721 Rotterdam passed a similar rule prescribing particular forms of policy (but without requiring that policies be signed).³³

Other regulations dealt with aspects of the contract not specified in the policy, often by formalizing existing customs concerning matters such as the timing of the risk or the means of valuing goods. For example, a policy on goods generally began from the time the goods left shore, and continued until they were safely landed. In London, however, the risk began only when the goods arrived on board - so, for example, goods damaged while being transferred to the ship in small boats would not be covered. Insurance on a vessel generally continued until the vessel had been moored for 24 hours in safety.³⁴ When insuring a vessel, the value of the vessel was generally specified on the policy, but when insuring goods, the general custom was to value them at their invoice cost together with any shipping charges incurred, and this custom was formalized in ordinances such as that of Hamburg in 1731.³⁵ It was however generally legal to specify a higher value for the goods in the policy, such as the price they would have fetched at the intended point of sale, if a merchant wished not just to recover his costs but also some of his expected profits. In the case of a 'general average' loss, in which some goods were thrown overboard to save a ship in distress, the owners of the goods thereby saved (or their underwriters) were expected to compensate those whose goods had been sacrificed for the general good, but the issue of how to value the lost goods - at their original cost, or at the value they would have sold for had they not been jettisoned, or at some other value, was answered in a variety of different ways by different ordinances in different cities.³⁶

Underwriters sometimes sought to reinsure a risk, for example, to cut their losses when news arrived suggesting that a loss might have occurred (of course, a failure to reveal any relevant news to the reinsurer would constitute fraud). Reinsurance was legal in most jurisdictions, and explicitly provided for under France's Ordinances of 1681 and Hamburg's ordinance of 1731, but in England it was banned in 1746 in response to perceived abuses.³⁷ However, British merchants often had good reasons to reinsure their risks, and at least some continued to do so notwithstanding this prohibition.³⁸

Insurance of enemy property was prohibited in many jurisdictions, such as Barcelona through its ordinance of 1484. It was permitted in principle by the Dutch, although in the seventeenth century the Estates-General of the Netherlands passed several statutes prohibiting insurance of property belonging to citizens of specific enemy nations, and/or shipping to or from those nations, during particular wars.³⁹ In England, insuring the enemy remained legal and was widely practiced until the late eighteenth century. This meant that English underwriters often recompensed enemy merchants for vessels captured by English warships and privateers. In 1783, the French writer Emerigon noted

³³ Go (2009), p.109; Van Niekerk (1998), p.488-9.

³⁴ Magens (1755) Vol. 1, p.45-47.

³⁵ Magens (1755) Vol 1, p.37; Vol. 2, p.229.

³⁶ Magens (1755), Vol.1 , p.55-73.

³⁷ Magens (1755), Vol. 1, p.x, 29, 93-95; Vol. 2, p.171, 233, 341-345. Exceptions were allowed in England in case of the death or bankruptcy of the underwriter and on some foreign vessels.

³⁸ Weskett (1781), p.383.

³⁹ Van Niekerk (1998), p.545-552, Barbour (1929), p.582.

that ‘During the last war between France and England the commerce of insurances was not interrupted, and it continues in the same manner during the present, the insurance being effected through agents and *for account of owners*, and thus far the respective losses have been paid without difficulty’.⁴⁰ In 1741, an attempt to outlaw insurance of enemy property failed in the face of opposition from underwriters, who argued that since underwriting was profitable, insuring enemy vessels enriched the kingdom at the expense of her enemies. A temporary prohibition was issued in 1748, but expired with the treaty of Aix-La-Chapelle later that year and was not renewed until 1793.⁴¹ Even then, trade with French ports could be insured on many kinds of goods if the property were neutral rather than French.⁴²

4.2 Taxation and Registration

A common method of attempting to gain control over the industry was to require that policies be registered with the authorities. The usual justification for this was to prevent merchants fraudulently insuring the same goods multiple times with different underwriters. By charging a registration fee, registration of policies could also serve as a source of revenue, and if effectively enforced, it would enable governments to control the wording of policies and restrict what could be insured. Interestingly, proposals to introduce registration of policies were often made by enterprising merchants who hoped to gain the monopoly on registration for themselves. In 1555, for example, one Jean-Baptiste Ferufini petitioned the Spanish government to establish an insurance registration office in Antwerp, offering in exchange an annual payment of 500 guilders. Not surprisingly, the proposal prompted vigorous opposition from merchants, but in 1559 it was approved. Merchants were required to pay a registration fee, and only registered policies would be enforceable in the local courts. Yet, although an ordinance was drafted to establish the monopoly, there is no evidence that the registration office ever functioned. Most likely, merchants simply ignored it.⁴³ In 1577, a man named Francesco di Nasi made a similar proposal to register policies in Venice, pledging payment of 800 ducats a year to the government. The government board in charge of financial and economic affairs, supported by merchants and brokers, rejected the proposal.⁴⁴

In 1576, Richard Candeler managed to obtain a patent to establish an ‘Office of Assurances’ with a monopoly on the registration of insurance policies in London. Initially, Candeler also had a monopoly on *writing* policies, but that element of the patent was abandoned in the face of opposition from merchants, brokers and underwriters. Malynes, writing in 1622, noted that insurance policies were registered at the Office of Assurances in London’s Royal Exchange. But most merchants, preferring to keep their affairs private, failed to register their policies, and the Office eventually became defunct.⁴⁵

⁴⁰ Emerigon (1783), p.105.

⁴¹ Van Niekerk (1998), p.557; Magens (1755) Vol. 1, p.vi-x.

⁴² Wright and Fayle (1928), p.178-9; Kim and Oldham (2012).

⁴³ Van Niekerk (1998), p.202-5.

⁴⁴ Stefani (1958), p.105.

⁴⁵ Barbour (1929), Jones (1960), Kepler (1975), Van Niekerk (1998), p.225, Ibbetson (2008).

Some governments attempted to tax insurance transactions by imposing a stamp duty on policies. Their ability to do so was constrained, however, by the possibility of tax evasion, and the knowledge that merchants might choose to insure elsewhere. For example, a proposal in 1571 to tax insurance ordered by foreign merchants in Venice was not enacted, in part because of a desire not to stifle trade, and in part because of an assumption that insurers would simply avoid the tax by insuring informally. In 1703 and 1768, proposals for a more general tax on insurance transactions in Venice were also turned down, on the basis that a tax would lead merchants to insure elsewhere.⁴⁶ In Holland, stamp duty was first imposed in the early seventeenth century. Some merchants partially evaded the duty by using one policy to cover several vessels, so in 1707 that practice was outlawed. Unstamped policies were legally void, but they nevertheless continued to be widely used, and repeated regulatory efforts to counter their use in 1721, 1744 and 1773 met with limited success.⁴⁷

In England, stamp duty was first imposed in 1694 as a temporary measure to fund the war with France, and was periodically reintroduced in wartime during the eighteenth century. However, it was widely evaded by the use of 'slips' - pieces of paper on which the broker sketched the details of the risk in order to attempt to find underwriters, prior to filling out a formal policy - in place of stamped policies. It was not until 1807 that the Commissioners of Stamps prosecuted a Lloyd's subscriber for the use of slips. This led to a furore, the solution to which was the introduction of 'stamped slips' in 1814. Yet although the law subsequently required the use of stamped slips, in 1867 it emerged that 'no person has ever used or seen a slip so stamped. The Distributor of Stamps in the City of London knows of no such stamp, and cannot produce one on application'.⁴⁸ Nevertheless, stamp duties on policies remained in place, and despite some evasion produced substantial revenue.

4.3 Licensing of brokers

Because of the central role of brokers in insurance markets, some governments made efforts to restrict their activities and control access to the brokerage profession.

In Amsterdam, a brokers guild was formed in 1578, and contracts arranged by nonmembers of the guild were legally invalid. Nevertheless, most brokers remained outside the guild; in 1600, only about one third of brokers were members.⁴⁹ Ultimately, a broker's reputation, his knowledge of the business and his access to underwriters were more important than whether the policies he wrote could be legally enforced. As the activities of guild members became more heavily regulated, an increasing number of brokers simply chose to act unofficially.⁵⁰ The municipal government, together with the

⁴⁶ Stefani (1958), p.105, 129-31, 149-51, 186.

⁴⁷ Van Niekerk (1998), p.478-83.

⁴⁸ Wright and Fayle (1928), p.289-292, quoting Manley Hopkins.

⁴⁹ Go (2009), p.76-82.

⁵⁰ Go (2009), p.157.

brokers guild, made repeated but unsuccessful attempts to eradicate unauthorized brokers, before eventually abandoning these efforts in the eighteenth century.

In Venice, licensing of brokers was introduced in 1708. Brokers were required to keep a register of policies and submit it to the authorities once a month, but as in Amsterdam, many brokers ignored the regulation and remained unlicensed. In 1771, the Venetian senate approved a writ governing the number of brokers and their activities, prohibiting brokers from acting as underwriters, requiring them to take an oath, and excluding Jews from acting as brokers. However, it was opposed by brokers and insurers as being 'impossible to carry out', and following a political debate, many of its provisions were struck out.⁵¹

To summarize, the overall picture that emerges is that governments' attempts to regulate and tax insurance markets very often met with limited success, in part because of the constraints imposed by interjurisdictional competition, and in part because of the difficulty of enforcing requirements that ran against merchants' interests and customs. If formal authorities became overbearing, merchants and brokers sometimes pushed back, forcing the regulations to be weakened; but in many cases, they simply opted out of the formal system and relied on informal enforcement and reputation mechanisms - which were indispensable in any case given the agency problems described earlier. Thus, for example, although the authorities in Amsterdam often passed formal regulations that were at odds with actual practice,

it seems business 'on the streets', the daily routine of the insurance industry, went its own way. Ordinances and bylaws were, more often than not, breached, defied or simply ignored. Merchants and ship-owners were not permitted to insure up to the full value of their assets, but did so anyway. Brokers were not allowed to trade for their own account, but were notoriously known to do so. Unauthorized brokers were never to be admitted to the Guild, but [some former unauthorized brokers were].⁵²

5. Organizational form

As noted above, early marine insurance policies were underwritten by private individuals, with the transactions generally intermediated by brokers. This system had many virtues. It enabled the spread of risk much more widely than had earlier been possible, and it made use of the expertise of underwriters and brokers to determine premiums in a competitive market. On the other hand, finding a new group of underwriters for each policy entailed substantial transaction costs, as did collecting losses in the event of a claim. Furthermore, the financial stability of individual underwriters, and therefore the security of the policy, was frequently uncertain, particularly during wartime.

5.1 Syndicates

⁵¹ Stefani (1958), p.123-4, 152, 165-171.

⁵² Go (2009), p.145.

One natural way to bolster the security of the policy and reduce the transaction costs of spreading risk was to form a stable syndicate of underwriters. In Venice, underwriting syndicates emerged in the sixteenth century, generally organized by brokers who were expert in evaluating risks, and who also themselves acted as underwriting members of the syndicate (thereby profiting from their knowledge while credibly demonstrating their good faith to the other underwriters). These syndicates were bound together for a specified time, and each partner had unlimited liability for losses.⁵³ Similar underwriting associations - generally small associations bound for a fixed duration - also existed in Bruges, Antwerp, Amsterdam and Rotterdam.⁵⁴

In France, too, some brokerages formed regular syndicates (*chambres*) of underwriters. Dawson (1931) describes the operation of one such syndicate of twelve merchants in Rouen between 1727-1742. Unlike private underwriters, the members of the French syndicates were jointly and severally liable for the policies they underwrote, and they also enhanced the security of the policy by raising an initial capital fund which was held in trust until all risks had expired, making dividend payments only when a substantial balance had accumulated.⁵⁵ The Rouen merchant Robert Dugard belonged to four *chambres* during the 1730s-50s. Similar companies were formed in other French ports, such as La Rochelle.⁵⁶

Syndicates also emerged in the American colonies. In October 1757, six Philadelphia merchants led by Thomas Willing formed a 'Company for insuring Ships, Vessels, Goods and Merchandize', each agreeing to underwrite one sixth of the risks underwritten by Willing, who was limited to insuring £600 on any one risk. Unlike in the Rouennais case, however, the agreement did not involve any assumption of joint liability, and the company raised no capital fund. In 1793, a Boston broker organized an association of thirteen underwriters according to a rotating scheme such that rather than splitting risks evenly, each underwriter was assigned £100 of the risks presented to the broker in alphabetical order, the next risk starting with the next underwriter in turn.⁵⁷

5.2 Mutual insurance

A widely used organizational form in insurance is the mutual, in which the owners (residual claimants) of the firm are the customers/policyholders themselves. The mutual form became widely used in life insurance during the nineteenth century.⁵⁸ It was generally less well suited to marine insurance because of the difficulty of determining 'fair' premiums when merchants needed to insure diverse and idiosyncratic risks. In suitable circumstances, however, organizations resembling mutuals emerged.

⁵³ Stefani (1958), p.101-2, 191-2.

⁵⁴ Van Niekerk (1998), p.595-8.

⁵⁵ Miquelon (1978), Dawson (1931), p.xiv, xix.

⁵⁶ Miquelon (1978), p.123, Clark (1978), p.576.

⁵⁷ Gillingham (1933), p.114.

⁵⁸ Wright and Kingston (2012).

In the Dutch province of Groningen, ‘hull clubs’ were formed during the seventeenth century by shipowners who made regular runs carrying peat to Holland and northern Germany, returning with wood and other merchandise. The vessels employed in this trade were relatively homogenous, and the ship-masters were part of a close-knit community with intimate knowledge of the vessels and the risks, which helped to control opportunism. Over time, however, as the size and heterogeneity of the groups increased, the rules required to mediate disputes and control opportunistic behavior tended to become more formal and complex, and the mutuals had virtually disappeared by the nineteenth century (Go 2009). Around the same time, mutual insurance was also practiced by some Dutch whalers.⁵⁹

Similar hull clubs operated in the late 1700s and early 1800s in some regional British ports, particularly in the north-east. As in the Dutch case, these were small, local organizations of shipowners involved in high-frequency trade, such as carrying coal to London from the coal fields of northern England. Because of the high frequency of trade, and the relatively homogenous nature of the vessels and cargo involved, it was cheaper to insure each other than to obtain formal insurance in London. In effect, the club members acted as a syndicate of private underwriters who regularly insured each others’ vessels, the premiums being determined ex post based on realized losses (Kotowski 2007). As in Groningen, the vessel owners generally knew each other well, and the hull clubs also had a social dimension.

5.3 Joint-stock corporations

The major organizational innovation in marine insurance was the formation of joint-stock corporations beginning in the late seventeenth century. Corporations faced some disadvantages relative to private underwriting, including in particular agency problems arising from the separation of ownership and control. But they had two major advantages. First, because corporations’ underwriting was backed by a large capital stock, their policies were widely viewed as providing greater security than those of private underwriters; and second, the corporate form expanded the pool of capital available for underwriting by enabling those without specific knowledge of maritime affairs to, in effect, entrust their underwriting decisions to experts by buying shares. This enabled a much wider sharing of risk than had previously been possible.

However, incorporation - which entailed the creation of an artificial legal personality, with transferrable stock - could only occur through an act of a ruler or legislature.⁶⁰ Efforts to form corporations therefore frequently initiated political battles over whether a charter would be granted - typically, pitting the promoters of a new proposed corporation against incumbent brokers and underwriters. A common complaint was that the main objective of the promoters was to gain monopoly power and drive the private underwriters out of business. In some cases these suspicions were probably well-founded.

⁵⁹ Van Niekerk (1998, p.636-9).

⁶⁰ Limited liability was not a universal feature and generally not a primary motivation for incorporation before the late eighteenth century. See, eg., Harris (2000), ch.1; Kingston (2011).

For example, proposals to form corporations in England in 1661 and in Venice in 1680 were dropped when the authorities approved the proposals to incorporate without granting a monopoly.⁶¹

Beginning in the early eighteenth century, however, joint-stock marine insurance corporations were set up in many cities, some with a local monopoly and some without. In the 'Bubble' year of 1720, joint-stock companies were set up in Rotterdam, Middelburg, Hamburg and London. In Rotterdam, where the capacity of the insurance market had proved insufficient to cover large risks, the corporation was formed without merchant opposition and became integrated into the existing brokerage system, underwriting alongside private underwriters on policies offered by brokers.⁶² In Amsterdam, however, where private underwriting was more firmly established and the available underwriting capital appeared adequate, an attempt to create a company in 1720 was blocked by the political authorities due to opposition from private underwriters.⁶³ Insurance corporations were not formed in Amsterdam until 1771, and even then they dealt mainly with life and fire insurance. By 1786, however, there were four local corporations as well as eight agents of foreign companies writing marine insurance in the city.⁶⁴ Although war and political instability drove many private underwriters from the market, a substantial amount of private underwriting persisted in Amsterdam well into the nineteenth century.⁶⁵

In Genoa, a monopoly (granted in 1742) proved impossible to enforce, and was revoked in 1778, by which time there were several other companies as well as some private insurers operating in the city. Two joint-stock companies were formed in Venice in 1788, and more followed during the subsequent decade.⁶⁶ In France, a King's emissary had attempted to persuade the merchants of Rouen to set up a marine insurance company in 1686, but met with little enthusiasm as the existing system was considered adequate and did not tie up capital in shares.⁶⁷ Two large corporations were chartered in Paris in the 1750s, but failed to monopolize the market, perhaps because they found themselves at a disadvantage when it came to evaluating risks:

In the seaports a company of merchants gathers together to underwrite insurance. They know their work and inform each other; they know whether the ship they are insuring is good or bad, whether the crew is good or bad, whether the captain is experienced and wise or ignorant and confused, whether the shippers are suspect, of good reputation or likely to be dishonest, whether the voyage is to be long, whether the season is beginning well or not; they know everything because everyone makes it his business to find out. In Paris they know nothing and for the

⁶¹ Wright and Fayle (1928), p.41; Barbour (1929), p.577; Stefani (1958), p.125.

⁶² Gelderblom and Jonker (2010), Go (2009), ch.4, Van Niekerk (1998), p.622.

⁶³ Gelderblom and Jonker (2010).

⁶⁴ Spooner (1983), p.41.

⁶⁵ Go (2009); Spooner (1983), ch.2; Van Niekerk (1998), p.600.

⁶⁶ Stefani (1958), p.187-8 and ch.XV.

⁶⁷ Ruffat (2003), p.187.

Company to know all that, it would lose as much in the cost of postal charges and correspondence as it would earn in premiums.⁶⁸

For a time, regional companies and the Paris corporations (operating through local agents in the ports) shared the market with individual underwriters. In the 1780s, individual underwriters still did about half the marine insurance in the medium-sized French port of La Rochelle. However, the increased risks during wartime tended over time to drive the individual underwriters from the market, and companies gradually took over.⁶⁹

In colonial America, private underwriting through brokers had developed starting in the mid-eighteenth century. Following independence, numerous marine insurance corporations were chartered by American states in the 1790s and early 1800s, and the practice of private underwriting died out soon thereafter. In particular, Kingston (2011) argues that the transition from private underwriting to corporate underwriting in America was accelerated by the increased risks to American shipping during the ‘Quasi-War’ between America and France (1796-1800), when French privateers captured hundreds of American merchantmen, threatening the security of the private underwriters and highlighting the risk-spreading advantages of the corporate form.

5.4 Lloyd’s of London

The major exception to the general eighteenth-century trend towards corporate dominance of the marine insurance industry was Britain, where Lloyd’s coffee house in London, a marketplace for private underwriting, had developed by the mid-eighteenth century into the most important insurance centre in Europe. Lloyd’s emergence was facilitated by the ‘Bubble Act’ of 1720, which inhibited the growth of corporate underwriting.⁷⁰ Over time, Lloyd’s became a hub for information about ships and their crews, political and economic developments, and the many other factors affecting maritime risks. A variety of business practices also developed at Lloyd’s to help mitigate the information asymmetries and agency problems inherent in marine insurance transactions. And yet, for the first half-century of its existence, Lloyd’s had virtually no formal structure at all. A minimal formal organization was eventually established during the Revolutionary and Napoleonic wars of 1793-1815, but even then, informal rules and reputation mechanisms remained the dominant mode of governance at Lloyd’s.

Thus, by the nineteenth century, two distinctly different organizational structures had emerged in the marine insurance industry. Kingston (2007) argues the eighteenth-century marine insurance market was characterized by multiple equilibria. The network of merchants and underwriters that developed at Lloyd’s, and the mechanisms they developed to share and interpret information, created a lemons problem that put British corporations at a disadvantage in evaluating risks, and thereby prevented them from

⁶⁸ The Bordeaux magistrate Montesquieu, quoted by Boshier (1979), p.289.

⁶⁹ Clark (1978); Dawson (1931).

⁷⁰ The ‘Bubble Act’ of 1720 granted charters to two marine insurance corporations while prohibiting *all* other firms and partnerships from underwriting marine insurance (though still permitting private underwriting by individuals). See Supple (1970), ch.2; Harris (2000); Kingston (2007).

monopolizing the market. In contrast, in other countries corporations came to dominate the market. Once established, each institutional structure - based on private or corporate underwriting - became a stable equilibrium characterized by a complementary set of behavioral norms and expectations, reputation mechanisms, legal rules, information flows, and organizations. Equilibrium selection (and therefore the choice of organizational form) was driven by the timing of a series of historical events, including both exogenous shocks such as wars and endogenous parameter changes and learning processes.

6. Conclusion

A growing body of recent research studies institutions from an equilibrium perspective in which the constraints that motivate individual behavior are ultimately derived from expectations about the behavior of other actors in various contingencies, so that the 'enforcement' of rules is considered endogenously.⁷¹ From this equilibrium perspective, attempts to introduce new 'rules' can be seen as attempts to bring about a coordinated change in behavioral expectations, but in equilibrium it is ultimately these expectations, rather than the prescriptive content of the rules themselves, that motivate compliance. In particular, the introduction of a new law or formal rule may fail to change equilibrium expectations and behavior, or may change them in unanticipated ways.

This article suggests the value of this equilibrium perspective for understanding how the institutions that governed early insurance markets evolved, the interaction between legal systems and informal modes of governance, the role of political actors and the circumstances in which their interventions were helpful, unhelpful, or simply irrelevant for the operation of the market, the inter-relationships between institutional development in different countries within a competitive international market, and so on.

The form of the insurance policy and informal modes of contract enforcement initially emerged as equilibria derived from the strategic interactions of merchants and underwriters as they attempted to navigate the complex agency problems inherent in marine insurance transactions. These equilibrium patterns of behavior and associated routines were, in effect, successfully 'transplanted' from the Italian city-states as they came into widespread customary use among the international community of merchants, before eventually 'hardening' into law as judges looked to merchant practice to resolve disputes.

Insofar as the development of insurance law and regulations formalized existing merchant practice, they had the capacity to strengthen the existing mechanisms of governance, helping to coordinate expectations, reduce uncertainty and transactions costs, and ultimately facilitate the development of markets less reliant on personal trust between transactors. However, attempts to introduce new 'rules' that clashed with existing equilibrium patterns of behavior frequently failed to induce compliance. Faced with onerous rules, regulations or taxes, participants in marine insurance markets were sometimes able to push back through the political process. In other cases, they simply voted with their feet by shifting their business to other jurisdictions, or by opting out of

⁷¹ See Greif and Kingston (2011) for a survey.

the formal legal system in favor of extralegal modes of contract enforcement. Governments could declare a policy legally void, but that had little effect if contracts were not legally enforced. Even when legal enforcement worked well, merchants also continued to rely heavily on informal enforcement mechanisms, reputation and trust. Efforts to use political institutions to gain or confer special privileges, though often tried, generally also proved unsuccessful for similar reasons.

The equilibrium view also helps cast light on the observed diversity of institutions that govern apparently similar transactions in different countries. Britain, America, France and Holland all began the eighteenth century with similar marine insurance institutions based on underwriting by private individuals. The subsequent bifurcation of organizational form between Britain and other countries illustrates the possibility of multiple equilibria and how the timing of a sequence of historical events can bring about path-dependent institutional change.

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