CAMBRIDGE
UNIVERSITY PRESS

Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders

Author(s): Avner Greif

Source: *The Journal of Economic History*, Dec., 1989, Vol. 49, No. 4 (Dec., 1989), pp. 857-882

Published by: Cambridge University Press on behalf of the Economic History Association

Stable URL: https://www.jstor.org/stable/2122741

REFERENCES
Linked references are available on JSTOR for this article:
https://www.jstor.org/stable/2122741?seq=1&cid=pdf-reference#references_tab_contents
You may need to log in to JSTOR to access the linked references.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at https://about.jstor.org/terms



Cambridge University Press and are collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Economic History*

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders

AVNER GREIF

This article examines the economic institution utilized during the eleventh century to facilitate complex trade characterized by asymmetric information and limited legal contract enforceability. The *geniza* documents are employed to present the "coalition," an economic institution based upon a reputation mechanism utilized by Mediterranean traders to confront the organizational problem associated with the exchange relations between merchants and their overseas agents. The theoretical framework explains many trade-related phenomena, especially why traders utilized specific forms of business association, and indicates the interrelations between social and economic institutions.

Mediterranean trade contributed much to the economic growth of southern Europe during the Middle Ages.[1] The spread of this trade depended, to a large extent, upon traders' ability to employ overseas agents or to let business associates function as overseas agents. The employment of overseas agents was vital during the Middle Ages, since goods were sold abroad only after being shipped to their destination.[2] Since, absent contractual problems, a merchant can decrease cost by sending goods to an overseas agent rather than traveling with his goods, a large efficiency gain could potentially be achieved by employing overseas agents.[3]

The Journal of Economic History, Vol. XLIX, No. 4 (Dec. 1989). © The Economic History Association. All rights reserved. ISSN 0022-0507.

The author is Assistant Professor of Economics at Stanford University, Stanford, CA 94305.

The article was written while the author was at Northwestern University. I am grateful to J. Mokyr, J. Panzar, and W. Rogerson for helpful discussions and encouragement. The detailed remarks of an anonymous referee and the editor enriched this work. I received many stimulating comments from participants at seminars held at Northwestern University, the University of Chicago, the University of Texas at Austin, Stanford University, M.I.T, Yale, the University of Arizona at Tucson, the University of Michigan at Ann Arbor, and Washington University in St. Louis. The research was supported by the Sloan Dissertation Fellowship. The usual caveat applies.

[1] R. S. Lopez, "The Trade of Medieval Europe in the South," in M. M. Postan and E. Miller, eds., *The Cambridge Economic History of Europe* (New York, 1952), vol. 2; R. S. Lopez, *The Commercial Revolution of the Middle Ages, 950–1350* (New York, 1976). H. Pirenne, *Mohammed and Charlemagne* (New York, 1939); H. Pirenne, *A History of Europe* (New York, 1956).

[2] R. de Roover, "The Organization of Trade," in M. M. Postan, E. E. Rich, and E. Miller, eds., *The Cambridge Economic History of Europe* (Cambridge, 1963), vol. 3, p. 44; S. B. Gras, *Business and Capitalism, An Introduction to Business History* (New York, 1939); G. Porter, and H. C. Livesay, *Merchants and Manufacturers* (Baltimore, 1971).

[3] The superiority of trading systems that employ agents over those that do not has been shown by many scholars. See, for example, de Roover, "The Organization of Trade," pp. 43, 45 ff., 70 ff.; M. M. Postan, *Medieval Trade and Finance* (Cambridge, 1973), pp. 66 ff.; R. S. Lopez, and I. W. Raymond, *Medieval Trade in the Mediterranean World* (New York, 1955), p. 174.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

C. M. Cipolla has pointed out that the contractual problems associated with agency relations could be resolved neither by the legal system nor by the anonymous market. These problems arose from the fact that the agent who traded using someone else's capital "could easily have disappeared with the capital or cheated in business conducted in far-off markets where none of his associates had any control."[4] The traders faced an organizational problem: cooperation leads to efficiency gains that the anonymous market for agents' services fails to capture.

Until recently economic theory provided no framework within which such contractual problems could be investigated. Some scholars, such as R. S. Lopez and R. de Roover, have restricted their investigations of trade organization to forms of business association, implicitly assuming that the legal system was able to supervise and enforce the execution of all contracts. Other scholars have examined the establishment of "trust" relations among traders, focusing in particular on the role of social control systems and ethics. W. Sombart pointed out the importance of relationships within "natural groups," such as clans and tribes. N. Rosenberg and L. E. Birdzell Jr. emphasize loyalty relationships within a specific natural group—the family—and argue that "apart from the family, the Middle Ages offered no satisfactory model for mercantile enterprise." Following Max Weber, many scholars have stressed the role of ethics in surmounting contractual problems, emphasizing either implicitly or explicitly altruism ("taking pleasure in others' pleasure"), impure altruism (internalized norms of behavior), and fear of God.[5]

This article examines the economic institution that enabled eleventh-century Mediterranean merchants to deal with the contractual problems that arose from the fact that neither a merchant nor the judges possessed all the information available to "overseas agents," individuals who provided trade-related services to geographically remote merchants. The evidence suggests that the observed "trust" reflects a reputation mechanism among economic self-interested individuals.[6] By establishing ex ante a linkage between past conduct and a future utility stream, an agent could acquire a reputation as honest, that is, he could credibly

[4] C. M. Cipolla, *Before the Industrial Revolution* (2nd edn., New York, 1980), p. 198.

[5] Lopez, *The Commercial Revolution*; de Roover, "The Organization of Trade"; W. Sombart, "Medieval and Modern Commercial Enterprise," in F. C. Lane and J. C. Riemersa, eds., *Enterprise and Secular Change* (Homewood, 1953); N. Rosenberg and L. E. Birdzell, Jr., *How the West Grew Rich* (New York, 1986); M. Weber, *General Economic History*, trans. by F. H. Knight (New York, 1927).

[6] By self-interested individuals I refer to individuals whose utility function is defined over their effort and money income. On the old debate between sociologists and economists concerning the rational versus the social man, see H. A. Simon, *Models of Man, Social and Rational* (New York, 1987) and J. T. Landa, "A Theory of the Ethnically Homogeneous Middleman Group: Beyond Markets and Hierarchies," working paper, The Hoover Institution, Stanford University, 1988, p. 14. For a discussion of cooperation versus free riding, see R. M. Dawes and R. H. Thaler, "Anomalies: Cooperation," *Journal of Economic Perspectives*, 2 (Summer 1988), pp. 187–97.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

commit himself ex ante not to breach a contract ex post.[7] To examine the institution through which agency relations were organized is to study how this linkage was created and the contractual arrangements aimed at facilitating the operation of the reputation mechanism.[8] The evidence indicates that an economic institution, and not social control systems or ethics, played an important role in generating this linkage.

The evidence indicates that eleventh-century Mediterranean traders arranged agency relations through a peer organization that may be referred to as a coalition. Members of the coalition provided each other with agency services that increased the value of a member's capital. Each trader benefited from being a coalition member more than he could have by establishing agency relations based upon a reputation mechanism outside the coalition. Obtaining the benefits of coalition membership depended upon proper conduct in the past, while the short-run gain from cheating today was less than the long-run benefit an honest coalition member could obtain. Since this situation was common knowledge, the merchants perceived that the agents could not do better by cheating. The agent acquired a reputation of being honest, the merchant could trust him. In short, the traders utilized a *perpetuum mobile*—the contractual relations among them reduced the transaction cost associated with agency relations and thus motivated each coalition member to follow these contractual arrangements.

For this study I utilized a rich source of information on agency relations during this early period—namely, the *geniza* documents.[9] A *geniza* is a place where Jews locked away writings on which the name of God was or might have been written. From about the ninth century on, a *geniza* room was located in a synagogue in Fustat (old Cairo), where for centuries tens of thousands of documents were deposited. The room and its contents were eventually forgotten until the end of the last century, when the treasure was rediscovered.[10] Although the

[7] Note that a social control system and ethics mechanisms may constitute such a linkage. These mechanisms can thus be incorporated into the present approach.

[8] The approach taken here builds upon theoretical developments in the economics of information, contract theory, and transaction-cost economics. See O. Hart and B. Holmstrom. "The Theory of Contracts," in T. F. Bewley, ed., *Advances in Economic Theory, Fifth World Congress* (Cambridge, 1987); O. E. Williamson, *The Economic Institutions of Capitalism* (New York, 1985); and others. For a pathbreaking historical application of these developments, see S. Fenoaltea, "Slavery and Supervision in Comparative Perspective: A Model," this JOURNAL, 44 (Sept. 1984), pp. 635–68.

[9] For a general introduction to the *geniza* documents, see S. D. Goitein, *A Mediterranean Society: Economic Foundations* (Los Angeles, 1967), introduction; the entry "*Geniza*" in M. Th. Houtsma, ed., *Encyclopedia of Islam* (2nd edn., Leyden, 1978), vol. 3, pp. 987–89.

[10] The documents were purchased by various libraries. Documents referred to here are denoted by the library in which they are located and their registration number within that library. When the reader is directed to a specific line or lines within the document, the side (a or b) and the lines are also mentioned. The following abbreviations are used: BM is the British Museum, London; Bodl. is the Bodleian Library, Oxford, England; DK is the David Kaufmann Collection, Hungarian Academy of Science, Budapest; Dropsie is Dropsie College, Philadelphia; ENA is the Elkan N.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

documents from the Fustat *geniza* are not the only *geniza* documents that have survived, they are identified simply as the *geniza* because of their value and volume.

THE MAGHRIBI TRADERS AND TRADE EFFICIENCY

The *geniza* contains more than one thousand documents which reflect the eleventh-century Mediterranean trade. These documents depict this trade as free, private, and competitive. The authorities' stance with respect to international trade reflected the tolerance and liberalism that characterized the period. Muslim rulers, especially the Fatimids (who ruled North Africa, Sicily, Egypt, and Palestine), sought to promote trade and no official restrictions fettered migration or the transfer of raw materials, finished goods, or money across the Mediterranean.[11] Both transportation and mail delivery were competitive and largely private, and shipping was available even to a small merchant, who could rent storage space on a ship.[12] The trade within each trade center was free and competitive, with many buyers and sellers interacting in bazaars and storehouses, where they negotiated and competed over prices, using brokers, open-bid auctions, and direct negotiation.[13]

International trade was characterized by much uncertainty with respect to the duration of the ship's voyage, the condition in which the goods would arrive, the price at which the goods would be sold, and the cost of the goods. A journey from Egypt to Sicily, for example, could take from 13 to 50 days, and ships did not always reach their

---

Adler Collection, Jewish Theological Seminary of America, New York; INA is the Institute Norodov Azii, Leningrad; Mosseri is the private collection of Jack Mosseri; Oxford is the Oxford library, England; TS is the Taylor-Schechter Collection, University Library, Cambridge, England; ULC is the University Library, Cambridge, England (exclusive of the TS collection). Many of the documents have been published by Goitein, Moshe Gil, and others. For published, translated, or quoted documents I cite the published source after the reference to the document. For example, TS xx.xxx, a, ll. 24–25, Goitein, *Economic Foundations*, p. 727 is a reference to document # xx.xxx in the Taylor-Schechter collection, side a, lines 24–25, that was published in Goitein, *Economic Foundations*, p. 727.

[11] The entry "Fatimids" in Houtsma, *Encyclopedia of Islam*. Moshe Gil, *Palestine During the First Muslim Period (634–1099)* (in Hebrew and Arabic), (Tel Aviv, 1983), vol. 1, pp. 257–58; Goitein, *Economic Foundations*, pp. 29–35, 266–72; S. D. Goitein, *Letters of Medieval Jewish Traders* (Princeton, 1973), pp. 10–11; and A. R. Lewis, *Naval Power and Trade in the Mediterranean, A.D. 500–1100* (Princeton, 1951), pp. 189 ff. Customs were imposed, but their levels were limited by competition between trade centers. How trade embargoes forced cancellation of a tariff is presented in A. Greif, "Reputation and Coalitions in Medieval Trade: Evidences from the Geniza Documents," MS, Northwestern University, 1989.

[12] Goitein, *Economic Foundations*, pp. 309 ff.; Goitein, *Letters*, p. 112, n. 5; Moshe Gil, "The Jews in Sicily Under the Muslim Rule in the Light of the *Geniza* Documents," MS, Tel Aviv University, 1983 [also published (in Italian) in *Italia Judaica*, (Rome, 1983)], p. 27, n. 30; TS 16.7, b, 1. 5. For Europe, where the situation was rather different, see Gras, *Business and Capitalism*, pp. 40, 43, 76, and de Roover, "The Organization of Trade," pp. 48, 58 ff. For a discussion of mail delivery, see Goitein, *Economic Foundations*, pp. 191, 281–95.

[13] Goitein, *Economic Foundations*, pp. 157, 187, 192 ff.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

destination.[14] Within the ship the goods were not well sheltered and were often damaged in transit. Furthermore, as the captain of the ship was not responsible for packing, loading, and unloading the goods, there was always the possibility that he or the crew would pilfer the goods.[15]

Although prices within each trade center were determined competitively, they were subject to large variations. The nature of the communication and transportation technologies and in particular the length of time it took to deliver goods, and the limited capacity of the buyers to ship goods, made supply and demand in each trade center rather rigid. Any demand or supply shock thus led to a sharp change in prices. The price of flax in Sfax (Tunisia) around 1059, for example, fell from 70 to 40 dinars within a short period of time. The price of lead rose from 8 to 14 quarter-dinars following the arrival of 25 ships of buyers in Mazara (Sicily).[16]

Because all of the countries between Spain and South Arabia formed a closely knit trading area, changes affecting business in one country were felt abroad. The general principles regulating the fluctuation of prices were well known to eleventh-century merchants, who tried to gather information and to update their business decisions accordingly. When one merchant learned that a large flax crop was expected in Egypt, he advised his business associate in Tunisia to sell all the flax he had as quickly as possible. The latter chose to sail to Sicily with the flax since he had been informed that the prices there were higher. In 1061 the price of wheat in Tunisia rose sharply when it became known that the Normans had conquered Messina (Sicily).[17]

The *geniza* documents utilized for this study relate mainly to a group known as the Maghribi traders. These were Jewish traders who lived in the Abbasid caliphate (centered in Baghdad) until the first half of the tenth century, when they emigrated to North Africa (a part of the Maghrib, the Muslim world's West), mainly to Tunisia. This region was prospering at that time under the rule of the Fatimid caliphate. Later, during the eleventh century, one finds Maghribi traders who emigrated

[14] Ibid., pp. 273 ff.; termination in Libya instead of Sicily: TS 20.152, a, ll. 24–25, Gil, *Palestine*, vol. 2, p. 727.

[15] See, for example, Bodl. MS Heb. c28, f. 61, a, l. 6–7, Gil, *The Jews in Sicily*, pp. 126–33. On pilfering, see Bodl. MS Heb. c28, f. 61, a, l. 12–13, Gil, *The Jews in Sicily*, pp. 126–33; Goitein, *Economic Foundations*, p. 157. On damage, see Bodl. MS Heb. a3, f. 13, Goitein, *Letters*, p. 122.

[16] Dropsie 389, a, ll. 4–5, b, ll. 27–28, Gil, *The Jews in Sicily*, pp. 113–25. See also Goitein, *Economic Foundations*, pp. 301 ff.

[17] TS Arabic box, 5, f.1, ll. 16–17, S. D. Goitein, "Jewish Trade in the Mediterranean in the Beginning of the Eleventh Century (in Hebrew)," *Tarbiz*, 37 (Jan. 1968), pp. 168–70. Wheat: INA D-55, No. 13, Goitein, *Letters*, pp. 163–68. See discussion in Goitein, *Economic Foundations*, pp. 200–1.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

from Tunisia to Spain, Sicily, Egypt, and Palestine. Some of them went as far as Byzantium and eastern Europe.[18]

The Maghribi traders were largely middle class. Although some of them invested in merchandise worth at least several thousands dinars—a considerable sum for a period in which middle-class household expenditures per month averaged less than three dinars—most were involved in business ventures worth no more than a few hundred dinars. The number of traders who operated during the eleventh century is not known; the several dozens of traders mentioned in the *geniza* clearly represent only a partial listing.[19]

Although the Maghribi immigrants integrated into existing Jewish communities, they also retained a strong sense of identity and solidarity among themselves.[20] In their letters they refer to themselves as "our people, the Maghribis, the travelers [traders]" or "our people."[21] The distinct identity of the Maghribi traders within the Jewish communities is also suggested by letters written by Jews other than the Maghribi traders. In 1030 a letter from Fustat to the head of the yeshiva in Jerusalem happily reports that some Maghribis have joined the Fustat yeshiva's synagogue. Twenty-four years later, in a report sent to Jerusalem concerning the condition of that synagogue, the "Maghribi people" are still mentioned as a separate group.[22]

It is important to note that the Maghribi traders did not establish a separate religious-ethnic community apart from the Jewish community. Nor did they represent a "natural" group, which binds together individuals in all (or at least most) important aspects of their lives.[23] The bonds of a natural group usually discourage dishonest conduct. A Maghribi trader, living far away from most the other Maghribi traders and within a large and well-organized Jewish community, could, in fact, become totally integrated into this larger social group and could abandon his special ties with the Maghribi traders.[24] Indeed, when a

[18] Goitein, *Economic Foundations*, pp. 156–59, 186–92; Gil, *Palestine*, vol. 1, pp. 200 ff.; Moshe Gil, "The Radhanite Merchants and the Land of the Radahan," *Journal of the Economic and Social History of the Orient*, 17 (Sept. 1974), pp. 299–328.

[19] Goitein, *Economic Foundations*, pp. 214 ff.; Gil, *Palestine*, vol. 1, pp. 200 ff. Goitein argues that middle-class family monthly expenditures were two dinars (*Economic Foundations*, p. 46), while Gil argues they were about three dinars (*The Jews in Sicily*, p. 91).

[20] Moshe Gil, *The Tustars: The Family and the Sect* (Tel Aviv, 1971), pp. 12–15; Gil, *Palestine*, vol. 1, p. 215; and Goitein, *Economic Foundations*, pp. 30–34, 148, 157.

[21] "*Ashabana*," translated above as "our people," also means "coreligionists." It is thus sometime difficult to determine whether the writer of a particular letter meant Jews or Maghribi traders. See, for example, Bodl. MS Heb. d 66, f. 12, ll. 20–21, Gil, *Palestine*, vol. 3, p. 318; DK XV, b, l. 15 and TS 12 J 25, l. 39, Gil, *Palestine*, vol. 3, pp. 182, 222. In many letters the meaning is clear. See, for example, DK 13, section G, and F, Goitein, *Letters*, p. 32; TS Box Misc. 25, f. 106, a, l. 9, Gil, *Palestine*, vol. 2, p. 734.

[22] TS 13 J 26, f. 24, b, ll. 3–5 and TS Box Misc 25, f. 106, l. 9, Gil, *Palestine*, vol. 2, pp. 601, 734.

[23] Sombart, "Medieval and Modern Commercial Enterprise," p. 36.

[24] Gil, *Palestine*, vol. 1, pp. 219, 450–51. Clearly, when people interact they may get some satisfaction from the interaction itself. Fear of losing this satisfaction may reduce misconduct to

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

Maghribi trader wanted to impose social sanctions against another trader, he made a public appeal to the Jewish communities.[25]

The Maghribi traders coped with the uncertainty and complexity of the trade—they reduced the cost of trade—by operating through business associates, whom they relied upon to handle some of their business dealings abroad.[26] The merchants exploited this advantage by allocating risk better through diversification and shifting trade activities across trade centers, goods, and time; by operating as sedentary traders, thus saving opportunity costs and the expense and risk of a journey; and by enjoying the expertise of their business associates.[27] Partnerships enabled the traders to diversify their capital while retaining the benefits of economies of scale and scope. Another form of business association, the *commenda*, regulated relations between a business associate who was ready to bear the risk and the effort of travel but was unable to commit himself to return the capital in case of loss.[28] Additional efficiency was achieved by the mere fact that a merchant could rely on someone else to handle his affairs in his absence, an important factor for those merchants who sailed between trade centers.[29]

The importance of operating through business associates is suggested by the variety of the tasks business associates performed. These included loading and unloading the ship; paying the customs, bribes, and transportation fees; storing the goods; gathering and delivering information; transferring the goods to market; and deciding when, how, and to

---

some degree. Traders did interact over time and shared a common religion and history (see Gil, *Palestine*, vol. 1, p. 223, and Goitein, *Economic Foundations*, p. 149). However, the point is that each trader was far away from most of the other traders, had commercial relations with only some of them, and belonged to another social group—the Jewish community.

[25] Bodl. MS Heb a3, f. 26, Goitein, *Letters*, pp. 96 ff.

[26] See below for a discussion of forms of business association employed by the Maghribi traders.

[27] For diversification over trade centers, see, for example, Bodl. MS Heb. a3, f.26, Goitein, *Letters*, p. 100. (five different centers); over goods, see, for example, Goitein, *Economic Foundations*, pp. 153 ff.; over time, see, for example, DK 22, b, l. 13, Gil, *The Jews in Sicily*, pp. 96–106; TS 12.5r, TS 20.152, Bodl. MS Heb. a3, f. 9, Gil, *Palestine*, vol. 2, pp. 721 ff. See also Goitein, *Economic Foundations*, p. 201; N. A. Stillman, "East-West Relations in the Islamic Mediterranean in the Early Eleventh Century" (Ph.D. diss., The University of Pennsylvania, 1970); M. Michael, "The Archives of Naharay ben Nissim, Businessman and Public Figure in Eleventh Century Egypt (in Hebrew and Arabic)" (Ph.D. diss., The Hebrew University, Jerusalem, 1965). Merchants also diversified across shipments, see, for example, TS 10 J 19, ll. 7 ff., S. D. Goitein, "Jewish Trade in the Mediterranean in the Beginning of the Eleventh Century (in Hebrew)," *Tarbiz*, 36 (July 1967), pp. 378–80. For a story of a Muslim trader who lost all his fortune in a single shipwreck, see A. E. Lieber, "Eastern Business Practices and Medieval European Commerce," *Economic History Review*, 21 (Aug. 1968), p. 231, n. 1. For business associates' expertise, see Goitein, *Economic Foundations*, pp. 155 ff.

[28] For example, Jacob ben Isma'il of Sicily had at least five partnerships at the same time; see A. Greif, "Sicilian Jews During the Muslim Period (827–1061) (in Hebrew and Arabic)" (M.A. thesis, Tel Aviv University, 1985), p. 133. For a discussion of the risk allocation role of the *commenda*, see A. L. Udovitch, *Partnership and Profit in Medieval Islam* (Princeton, 1970), and Goitein, *Economic Foundations*, p. 171.

[29] See, ULC Or 1080 J 42, Goitein, *Letters*, pp. 93–94; and Greif, "Sicilian Jews," pp. 141 ff.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

whom to sell the goods and for what price and at what credit terms. Frequently the associate also had to collect a trader's revenues (a difficult task in many cases) and then handle them according to the trader's instructions.[30] How greatly such associates reduced the cost of trade is suggested by one trader who wrote to his business associate, "all profit occurring to me comes from your pocket," while another trader remarked that in trade "people cannot operate without people."[31]

The relations between business associates reflected in the *geniza* suggest that these relations were based upon mutual trust.[32] Many, if not most, of the business associations mentioned in the *geniza* were conducted without relying upon the legal system. Many business associations were not based upon legal contract. Others, although based upon legal contracts, involved additional instructions through letters and the operation of one party at distance from the other. Nevertheless, only a handful of documents reflect allegations about misconduct.[33]

To understand why "trust" governed the relations between business associates, one has to address a more general question, namely, what was the institution through which the contractual relations among business associates were organized? The starting point in addressing this question is to identify the common denominator among the forms of business association which contributed directly to cost reduction.

ASYMMETRIC INFORMATION, REPUTATION, "TRUST," AND THE COALITION

Operating through business associates enabled a trader to confront risk and to reduce the cost of trade by entrusting an overseas business associate with his commercial affairs abroad. In other words, the cost reduction resulted from letting a business associate function as an overseas *agent* for the association, who supplied the services required in handling the capital abroad. An (overseas) agent is someone involved in trade ventures in which the capital or the profit (loss) or both are not exclusively his own but are shared with a merchant (an individual or a partnership) located in a different trade center.[34] To clarify the difference between an agent and a business associate, consider the case of a partnership. Usually partners operated in a different trade center; each of them sold the goods that were sent to him, bought some merchandise,

[30] See Goitein, *Economic Foundations*, p. 166.

[31] DK 22, b, l. 18, Gil, *The Jews in Sicily*, pp. 97–106; TS 13 J 25, f. 18, Goitein, *Economic Foundations*, p. 164.

[32] For this conclusion, see, for example, Goitein, *Letters*, p. 7.

[33] Forms of business association will be discussed below as well as the use of the legal system in supervising the relations between business associates. The only "misconduct" that appears over and over in the documents is late payment of debts. This, however, seems to reflect shortage in liquid assets and was not considered misconduct during the eleventh century. See Gil, *Palestine*, vol. 1, p. 212.

[34] Note that partnerships without agency relations can be established. In such cases, however, all the partners must handle the goods physically and there can be no diversification of capital.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

and shipped it to the other partner. Whenever a partner utilized the partnership's capital, he acted as an agent for the partnership. Henceforth the term "merchant" denotes an individual who receives the residual revenue after the agent receives his compensation. The term "trader" refers to both agents and merchants.

After distinguishing conceptually between agents and business associates, two interrelated questions can be addressed. What was the economic institution through which agency relations were organized? And given this institution, what determined the forms of business association utilized? Since the type of economic institution I am considering here emerges in response to contractual problems, to address the first question requires examining the contractual problems associated with agency relations. To simplify the presentation, I have limited my attention to the case in which an agent sells a merchant's goods.

Agency relations in the period under study were characterized by asymmetric information, since the revenues the agent received depended upon circumstances that were not directly observed by the merchant.[35] An agent could thus increase his one-period profits by misreporting the states of nature he observed and embezzling some or all of the revenue.[36]

If honesty is a problem, a neoclassical market for agents' services fails to provide an institution through which agency relations can be organized. The anonymous, discrete, neoclassical market is one in which "faceless buyers and sellers, households and firms that grind out decision rules from their objective functions (utility, profit) meet . . . for an instant to exchange standardized goods at equilibrium prices."[37] In a neoclassical market, once an agent is hired, he maximizes his own profit by exploiting the asymmetric information and reporting total loss. In an anonymous market, conduct in a given period has no effect upon the reward in subsequent periods. The agent thus has nothing to lose by cheating the merchant. Aware this is how an agent will act, however, no merchant would ever hire one to begin with.

In the eleventh century the legal system failed to provide a framework within which agency relations could be organized. The court was

[35] In addition to prices, the revenue realization depended upon many other eventualities: the condition of the goods upon arrival; the amount of the bribe given in the port; the cost of delivery; theft; and so forth. See, for example, TS 20.122, b. l. 10. Dropsie 389, a, ll. 21–23, Gil, *The Jews in Sicily*, pp. 113–25; TS 10 J 10, f. 30, ll. 11–12, Gil, *Palestine*, vol. 3, p. 193; and Bodl. MS Heb. a3, f. 26, Goitein, *Letters*, p. 98, sect. B.

[36] For evidence and theoretical justification for the above (implicit) claim that it was optimal for a merchant to obtain a "true report" (where "true" is understood as some optimal deviation from the actual realization), see Greif, "Reputation and Coalitions," and A. Greif, "Agent's Reputation and the Choice of Optimal Contract," MS, Northwestern University, 1989.

[37] Yoram Ben-Porath, "The F-Connection: Families, Friends, and Firms and the Organization of Exchange," *Population and Development Review*, 6 (Mar. 1980), p. 4.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

usually unable to verify agents' claims and actions or to track down an agent who had emigrated.[38] Maimonides, the great Jewish scholar who lived in Fustat in the twelfth century, considered the case in which the agent who had to deliver money to a creditor had "gone to distant lands." If the creditor claimed that he was not paid, he had to swear that he had not been paid; finding the agent and bringing him to court was not considered.[39] Even if an agent could be located, litigation was expensive and time-consuming. Around the beginning of the eleventh century, a Maghribi merchant sent goods to his agent in Fustat. A portion of a legal document written in Jerusalem around 1065 indicates that the merchant's heirs were still trying to retrieve their share in the sale.[40] Another document, written in Fustat at 1016, indicates that merchants considered the court "too slow" even when all the parties concerned were present in the same city. A prominent trader from Sicily, Amron ben Elijah, had the Jewish judge of Fustat arrested by the Muslim police; he claimed that he had waited over a month for the Jewish court to deal with a legal dispute between him and another merchant.[41]

Organization theory predicts that when cooperation leads to efficiency gains which the market and the legal system fail to capture, "private order" economic institutions will be established.[42] Since agents were employed by the Maghribi traders, and "trust" prevailed in agency relations, it seems reasonable that they established a "private order" institution.[43] Where contractual relations are expected to be repeated, reputation may provide the base for such an economic institution.

Theoretically, two types of reputation mechanism related to agency

[38] According to Jewish law, an agent cannot be sued for "bringing (the merchant) articles worth 1 for 100" (Maimonides, *Mishne Torah*, vol. 12, trans. I. Klein, [New Haven, 1951], p. 208). In 1095 an agent who received 70 dinars reported that he had lost all but 20 dinars. The merchant could not sue, although he was certain he had been cheated. See TS 13 J 2, f. 5, Goitein, *Economic Foundations*, p. 176.

[39] Maimonides, *Mishne Torah*, p. 210. This inability is also reflected in the *geniza*. At the beginning of the twelfth century two brokers from Fustat—a father and his son—vanished from the city holding goods worth about two hundred dinars that belonged to Jewish and Muslim traders. Goitein, *Economic Foundations*, p. 439, n. 39.

[40] TS 10 J 4, f. 4, published by several scholars, see Greif, "Sicilian Jews," appendix, pp. 5–7.

[41] Bodl. Ms. Heb. f. 42, S. Poznanski, "Ephraim ben Schemria de Fustat (in French and Hebrew)," *Revue des Etudes Juives*, 48 (Jan.-Mar. 1904), pp. 171–72. See also Greif, "Sicilian Jews," appendix, pp. 66 ff. For additional examples of the inability of the legal system to provide an efficient solution to the above contractual problem, see TS 20.152 and Bodl. MS Heb. a3 f.9, Gil, *Palestine*, vol. 2, pp. 724–32. On the cost of litigation, see Bodl. MS Heb., a3 f.26, Goitein, *Letters*, p. 97. For discussion of similar problems in fifteenth-century Italy, see de Roover, "The Organization of Trade," p. 88. For the contribution of the legal system in promoting trade, see Gil, *Palestine*, vol. 1, pp. 210–12, 425–30.

[42] Williamson, *Economic Institutions*, pp. 5, 9–10; P. L. Joskow, "Vertical Integration and Long-Term Contracts: The Case of Mine-Mouth Coal Plants," paper presented in the Economic and Legal Organization Workshop, Massachusetts Institute of Technology, 1984, p. 13.

[43] For the prevalence of trust relations, see, for example, Goitein, *Letters*, introduction.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

relations can be distinguished.[44] The first enables an agent to signal that he is trustworthy because he fears God, or has internalized an ideology of honesty. The second mechanism enables an agent to establish ex ante that his most profitable course ex post is to be honest. This mechanism allows an agent credibly to commit himself ex ante to be honest ex post. The merchant can thus trust the agent—the agent possesses a reputation as honest agent.

The *geniza* reflects the importance of the second mechanism, where an agent remains honest out of desire to retain his position as an agent. To make this position attractive, the merchant must create a gap between the expected lifetime utility of an agent employed by him and the agent's best alternative elsewhere. To do so the merchant has to provide the agent a premium; for example, he can pay him a wage premium.[45] Of equal importance is the implicit contract established between merchant and agent, under which the merchant threatens to fire the agent and never operate through him again if he discovers that the agent has ever cheated.[46] Given a premium and the implicit contract, a dishonest agent can earn a short-run gain by cheating while an honest agent will earn a long-run gain by being paid a premium. An agent acquires the reputation of an honest agent if it is known that the long-run gain is not less than the short-run gain. The agent can not increase his lifetime utility by cheating. The merchant will offer the agent an *optimal premium*—the lowest cost premium for which the long-run gain is not less than the short-run gain.[47]

The above theory points to an arrangement which can improve upon this simple reputation mechanism.[48] Agency relations can be organized within an economic institution that may be referred to as a "coalition."

[44] Reputation is defined in game theory as "the perception others have of the players' value (utility function, profit function, etc.) which determines its choice of strategies," see K. Weigelt, and C. Camerer, "Reputations and Corporate Strategy: A Review of Recent Theory and Applications," *Strategic Management Journal*, 9 (Sept.-Oct. 1988), pp. 443–54. For references to reputation in the transaction-cost literature, see Williamson, *Economic Institutions*, pp. 121, 138, and Joskow, *Vertical Integration*, p. 14. For the role of reputation in the market for experience goods where the difference between the two types is reflected, see P. Nelson, "Advertising as Information," *Journal of Political Economy*, 78 (July-Aug. 1974), pp. 729–54, and B. Klein, and K. Leffler, "The Role of Market Forces in Assuring Contractual Performance," *Journal of Political Economy*, 89 (Aug. 1981), pp. 615–41. For subsequent analysis, see Franklin Allen, "Reputation and Product Quality," *Rand Journal of Economics*, 15 (Autumn 1984), pp. 311–27; W. P. Rogerson, "Reputation and Product Quality," *Bell Journal of Economics*, 14 (Autumn 1983), pp. 508–616; and C. Shapiro, "Premiums for High Quality Products as Return to Reputation," *Quarterly Journal of Economics*, 98 (Nov. 1983), pp. 659–79.

[45] That is, above the wage that the agent can get elsewhere.

[46] Note that it is assumed that there is some positive probability that the merchant will be able to detect deviation. See below on the mechanism employed by the Maghribi traders to balance the asymmetric information.

[47] For a more detailed discussion of this mechanism, see Greif, "Reputation and Coalitions."

[48] An improvement means a reduction in the optimal premium—a reduction that has efficiency, in addition to distributional, implications.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

That is a nonanonymous organizational framework through which agency relations are established only among agents and merchants with a specific identity (''coalition members''). Relations among the coalition members are governed by an implicit contract which states that each coalition merchant will employ only member agents and will pay them the optimal premium.[49] Moreover, all coalition merchants agree never to employ an agent who cheated while operating for a coalition member. Furthermore if an agent who was caught cheating operates as a merchant, coalition agents who cheated in their dealing with him will not be considered by other coalition members to have cheated.

This implicit contract improves upon the simple reputation mechanism. It reduces the optimal premium that a merchant has to pay an agent to keep him honest, all other things being equal.[50] In addition, the implicit contract enables merchants to employ agents for assignments which both parties know ahead of time will be of short duration. Since an agent who considers cheating a specific merchant risks his relations with *all* the coalition members, the agent's lifetime expected utility is rather robust with respect to the length of his associations with a specific merchant. Hence the optimal premium is independent of the ex ante known length of his relations with a specific merchant.

While theoretical considerations can generate many hypotheses, one has to look at the evidence to verify any postulate. In the next section direct and indirect evidence that supports the claim that agency relations were organized within a coalition is presented. Furthermore, the evidence enriches our understanding of the coalition's nature.

THE EVIDENCE

Direct Evidence on Various Aspects of the Coalition

The *geniza* contains direct documentary evidence on various aspects of the coalition, such as the operation of the implicit contract, the economic nature of the punishment inflicted on cheaters, the linkage between past conduct and future economic reward, the interest that all coalition members took in the relations between a specific agent and merchant, and so forth.

Evidence of the implicit contract within the coalition is found in two letters dated 1055. According to the letters, an agent who lived in Jerusalem, Abun ben Zedaka, was accused (although not charged in court) of embezzling the money of a Maghribi trader. When word of this accusation reached other Maghribi traders, merchants as far away as

[49] The coalition, however, is not a monopsony in the usual sense of the term since, as described below, a Maghribi trader usually operated as a merchant and an agent at the same time.

[50] Since it reduces the probability that a cheater will be able to receive the premium somewhere else.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

Sicily canceled their agency relations with him.[51] In the first decade of the eleventh century Samhun ben Da'ud, a prominent trader from Tunisia, sent a long letter to his business associate, Joseph ben 'Awkal of Fustat. The letter reflects the traders' awareness of the importance of the implicit contract in governing their relations. Joseph made this point clear when he made his future dealings with Samhun conditional upon his record: "If your handling of my business is correct, then I shall send you goods."[52] Conditioning future relations upon past conduct—the essence of the reputation mechanism—is well reflected here.

The use of economic rather than social sanctions and the existence of an implicit contract among the coalition members are also revealed in this letter. Joseph believed that Samhun had not remitted his revenues on time and imposed economic sanctions against him by not providing him with agent's services. He ignored Samhun's request to pay two of Samhun's creditors in Fustat and failed even to inform then of Samhun's request. By the time Samhun found out about it, ". . . their letters filled with condemnation had reached everyone." The content of these letters caused Samhun to complain that "my reputation [or honor] is being ruined."[53]

The letter also reveals why agency relations were established, and sheds light on their nature. Economic interdependence, not social norms regarding mutual help or altruism, motivated the parties. Samhun's words suggests that agents received a "premium" through a "wage premium" and a "capital premium." He cited two reasons for acting as Joseph's agent. The first was his desire to receive the agent's share in the profits. He complained that he had been inadequately remunerated: ". . . you did not think that I should have a profit through you of even 10 dinars. Although you have made through me ten times as much." Elsewhere he mentions that he sold Joseph's pearls for 100 percent profit, and adds, "Should I not have taken one quarter of the profit?"[54]

Samhun also sought to maintain mutual relations with Joseph in order to increase the expected value of his capital. "What I do need is the benefit of your high position and for you to take care on my behalf . . .," he writes, ". . . it is my desire to avail myself of your high standing for those things which I send to you. . . ."[55] Note that the ability of the merchant to create a gap between the future utility stream of an honest

[51] TS 13 J 25, f. 12; TS 12.279; see also TS 8 J 19, f. 23; all published by Gil, *Palestine*, vol. 3, pp. 218–33.

[52] Ibid., a, l. 41.

[53] Ibid., a, ll. 26 ff.

[54] DK 13, b, ll. 12–13, 20–21, Stillman, "East-West Relations," pp. 267 ff., and Goitein, *Letters*, pp. 26 ff.

[55] Ibid., a, l. 32 and a, l. 43.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

agent and that of a cheater is achieved here through the merchants' ability to control the expected income stream from the agent's capital.

The businesslike nature of the relations between Joseph and Samhun and the imposition of economic sanctions against Samhun and Abun ben Zedaka suggest that loss of reputation led to a reduction in a cheater's lifetime expected income. Further evidence is found in a document dated 1041/42 in which a trader from Fustat accused his Tunisian agent of having failed to remit the revenues from a certain sale. As a result of the accusation, so the agent complained, "the people became agitated and hostile to [me] and whoever owed [me money] conspired to keep it from [me]."[56] This incident suggests the economic nature of the punishment imposed upon a cheater by the members of the coalition and reveals why coalition members participated in punishing a cheater. Since traders usually acted as both merchants and agents, they maintained "open accounts" with other traders, that is, accounts that were cleared only periodically. When an agent was rumored to be in trouble, traders feared that he would not be able to pay his debts. Thus, as a preventive measure, they ceased sending him goods and held on to the money they owed him.

The deterrent effect of the implicit contract within the coalition is clear from an incident described in a letter sent from Mazara (Sicily) in 1059. The writer had sold flax illegally (before the ships had arrived and the trading season officially opened) in Sfax (Tunisia), receiving an average price of 13 dinars a load. By the time the ships arrived, the price had dropped to 8 dinars a load and the buyers refused to pay the agreed price. Eventually the buyers paid, solely out of fear of losing their reputations. As the seller wrote, "we were lucky . . . if not the honor . . . we wouldn't have received a thing. . . ."[57]

A letter sent around 1050 from Maymun ben Khalpha of Palermo (Sicily) to Naharay ben Nissim of Fustat also suggests that relations between a particular agent and merchant were of concern to other coalition members. Discussing a conflict that Naharay had with one of his agents in Palermo, Maymun writes, "You know that he is our [the Maghribi traders'(?)] representative [so the conflict] bothers us all."[58] Another letter, sent around 1060, confirms the functioning of a deterrent effect induced by the relations between the traders. In this letter an agent justifies his actions, which caused some loss to the merchant, on the ground that he did not want people to say that he did things that contradicted the merchant's instructions.[59]

The linkage between past relations with one merchant and future

[56] Bodl. MS Heb a 2 f. 17, Sect. D, Goitein, *Letters*, p. 104.

[57] Dropsie 389, b, ll. 22 ff., Gil, *The Jews in Sicily*, pp. 113–25. See also Bodl. MS Heb a3, f. 26 and ULC Or 1080 J 42, Goitein, *Letters*, pp. 97, 92–95.

[58] DK 22, b, l. 5 ff., Gil, *The Jews in Sicily*, pp. 97–106.

[59] Bodl. MS Heb. d 66, f. 60, a, margin, ll. 7–9, Gil, *Palestine*, vol. 3, p. 216.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

relations with another is also suggested by a letter sent in the middle of the eleventh century from Palermo (Sicily) to Yeshu'a ben Isma'il in Alexandria. The writer, a respectable merchant, was disappointed with his partner's performance: "Had I listened to what people say, I never would have entered into a partnership with you. . . ."[60]

The same letter contains additional evidence on the importance of reputation within the coalition. The merchant describes how he handled the sale of two loads of pepper—one for himself and the other belonging to his partner. The pepper price was very low: ". . . I held it [the pepper] until the time when the sailing of the ships approached in the hope it would rise. However, the slump got worse. Then I was afraid that suspicion might arise against me and I sold your pepper to Spanish merchants for 133 [quarter-dinars]. . . . It was the night before the sailing of the ships . . . pepper had became much in demand . . . [since] boats [with buyers] arrived. . . . Thus, it [the pepper] was sold for 140–142 [quarter-dinars]. I took collateral for the sale of my pepper at 140–142. But brother, I would not like to take the profit for myself. Therefore, I transferred the entire sale to our partnership. . . ."[61] The merchant decided to share the profits to maintain his reputation, which is the more interesting because the merchant did not intend to do business with his partner in the future: ". . . settle my account with yourself and give the balance to my brother-in-law," he wrote, "for you are a very busy man. . . ." Thus the merchant acted honorably solely to maintain his reputation with the other coalition members.

Indirect Evidence of the Reputation Mechanism and the Coalition

In addition to direct evidence, the *geniza* also contains indirect evidence on the functioning of the coalition. A rational and consistent explanation can be provided for trade-related phenomena reflected in the *geniza* under the assumption that agency relations were organized within a coalition. This suggests that the Maghribi traders indeed organized agency relations within a coalition.

The Maghribi traders were familiar with five forms of business association: sea loan, *commenda*, partnership, formal friendship, and factor relations. A sea loan was a loan for fixed interest. Its repayment was contingent upon safe arrival of a ship or successful completion of a voyage.[62] *Commenda* was usually established between two parties, one

[60] Bodl MS Heb a3 f. 13, Goitein, *Letters*, p. 123.

[61] Ibid.

[62] In the *geniza*, sea loans are mentioned only twice. See ENA 3793, f. 7, l. 4, Stillman, "East-West Relations," p. 262, and Goitein, *Economic Foundations*, p. 256. For a discussion of the Byzantine and Italian sea loan, see Lopez and Raymond, *Medieval Trade*, p. 196; Cipolla, *Before the Industrial Revolution*, p. 197; de Roover, "The Organization of Trade," pp. 53 ff.; and H. K. Krueger, "The Commercial Relations between Genoa and Northwest Africa in the Twelfth Century" (Ph.D. diss., The University of Wisconsin, Madison, 1932), pp. 73 ff.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

who provided the capital, and one who provided the work, in form of traveling and selling the merchandise overseas.[63] The parties allocated the profit and loss according to a sharing rule specified at the time the *commenda* was established.

A partnership brought together two or more parties, who invested capital and labor though not necessarily in equal shares.[64] The partners became joint owners of the capital and shared profit and loss in proportion to their share of the capital. Usually only one of them (or a third party) handled the joint capital at a time, or each of them handled part of the joint capital at the same time.[65]

The essence of a formal friendship relationship was that two traders operated in different trade centers, providing each other with trade services in their respective trade centers.[66] Neither received pecuniary compensation. This exchange of services was not based on emotions, nor was it a reciprocal exchange; rather it was purely a business matter.[67] The relationship was initiated by an agreement and could be terminated by either party at any time. As long as the relation was in force, however, each party was bound to provide his friend with trade services.[68]

[63] In Jewish law, the term for the *commenda* is "*'eseq*." See Maimonides, *Mishne Torah*, pp. 299–30. *Commenda* is the Italian name of a similar form of partnership (*collegantia* in Venice). I use this name, following Goitein, *Economic Foundations*. About *commenda* forms in Italy, see de Roover, "The Organization of Trade," pp. 45 ff., and Lopez and Raymond, *Medieval Trade*, p. 174. The Muslim version of the *commenda* approved by the Jewish legal authorities (*qirad algoyim*) appears in the *geniza*. For a discussion of the *commenda* relations as reflected in the *geniza*, see Goitein, *Economic Foundations*, pp. 169–80. For a discussion of Muslim *commenda* relations, see Udovitch, *Partnership and Profit*. For a discussion of *qirad algoyim*, see Maimonides, "*Responsa*" (in Judeao Arabic and Hebrew), in J. Blau, ed., (Jerusalem, 1957), pp. 45–46. For a Jewish *commenda* reflected in the *geniza*, see Oxford MS Heb. b.11, f.8, Jacob Mann, *The Jews in Egypt and in Palestine Under the Fatimid Caliphs* (New York, 1970), vol. 2, pp. 29–30. For the relationship among the Western, Muslim, Jewish, and Byzantine *commenda*, see A. L. Udovitch, "At the Origins of Western *Commenda*: Islam, Israel, Byzantium," *Speculum*, 37 (Apr. 1962), pp. 198–207, and Lieber "Eastern Business Practices."

[64] Called "*shirka*" ("partnership" in Arabic) or *shuthafuth* ("partnership" in Hebrew); "*khulta*" ("mixing" in Arabic), "*kis wahid*" ("one purse" in Arabic), "*baynana*" ("between us" in Arabic) or "*lilwasat*" ("into the midst" in Arabic). See Maimonides, *Mishne Torah*, p. 220; Goitein, *Economic Foundations*, p. 173.

[65] See DK 22, a ll. 35–36, margin right, and Dropsie 389, a, l. 30, Gil, *The Jews in Sicily*, pp. 96 ff.; Bodl MS Heb., a2, d 18, ll. 11–15, Jacob Mann, "Responsa of the Babylonian Geonim as a source of Jewish history," *Jewish Quarterly Review*, 10 (1919–20), pp. 139–72. For discussion, see Goitein, *Economic Foundations*, p. 172; Greif, "Sicilian Jews," p. 133.

[66] In Arabic the relationship was called "*suhba*" (companionship), "*sadaqa*" (friendship), or "*bida'a*" (goods). See Goitein, *Economic Foundations*, pp. 164–69, 183; Goitein, "Jewish Trade," pp. 371–72; Stillman, "East-West Relations," p. 388. The term "*bida'a*" also appears in Muslim juridical literature, see Udovitch, *Partnership and Profit*, pp. 101 ff., 134.

[67] Reciprocal in the sense of the reciprocity theory in anthropology. This theory claims that gift exchange, where each party is obliged to receive a gift and to return one of an equal value, is an ancient form of trade. See F. L. Pryor, *The Origins of the Economy: A Comparative Study of Distribution in Primitive and Peasant Economies* (New York, 1977), pp. 70 ff.

[68] This obligation is clear from letters, where traders wrote, "do not withhold from me your letters . . and your requirements so that I may deal with them, as my duty. . . ." and "please buy . . in return for my services to you." TS 13 J 25, f.18, Goitein, *Economic Foundations*, pp. 165,

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

A factor provided trade-related services to an absentee trader, probably for a commission. Some factors were authorized to represent a trader in court; some also held official or semi-official posts. Factors operated either for a single merchant or for several merchants at the same time. The most important factor was the merchants' representative, generally a relatively wealthy trader who had emigrated to the trade center where he held his post.[69]

As several scholars have observed, agency relations among the Maghribi traders mainly took the forms of partnerships, friendships, and factor relations.[70] In literally every business letter friendships, partnerships, and factor relations are mentioned, while *commenda* relations are hard to find. In twelfth-century Italy the situation was rather different; agency relations mainly took the form of *commenda*.[71] How can this difference be explained? Why did the Maghribi and Italian traders, who were familiar with the same forms of business association, utilize different forms?

Agency relations among the traders were characterized by flexibility. Sedentary traders served as agents for those who traveled, and vice versa. Wealthy merchants served as agents for poorer ones, and vice versa. Usually a trader served as an agent for several merchants, while receiving agency services from them or other traders.[72] This flexibility stands in sharp contrast to practices in twelfth-century Italy. Italian traders adopted *commenda* and established partnerships. More often than not, however, *commenda* relations were established between wealthy merchants and ambitious young traveling traders, while partnerships were established mainly to organize common ownership and agency relations within a family firm.[73] Why did Maghribi traders serve

---

167. See also Dropsie 389, a, l. 5 ff., b, l. 10–11, Gil, *The Jews in Sicily*, pp. 113–25. M. M. Postan, "Partnership in English Medieval Commerce," in *Studi in Onore Di Armendo Sapori* (Milan, 1957), vol. 1, pp. 532–33, suggests that similar arrangements were used in the Latin medieval world, although there (so he conjectures) an indirect remuneration was given. Lopez, *The Commercial Revolution*, p. 73–74, mentions a similar arrangement, called "*rogadia*" (by prayer) in early Venetian trade.

[69] For a discussion of merchants' representatives, see Goitein, *Economic Foundations*, pp. 186 ff.; Gil, *Palestine*, vol. 1, pp. 205, 230; Mann, *The Jews in Egypt*, pp. 29, 112; Michael, "Naharay ben Nissim," pp. 47 ff. For a discussion of other factors, see Michael, "Naharay ben Nissim," pp. 47 ff.; and Gil, *Palestine*, vol. 1, p. 503.

[70] S. D. Goitein, "Mediterranean Trade in the Eleventh Century: Some Facts and Problems," in M. A. Cook, ed., *Studies in the Economic History of the Middle East* (London, 1970). Goitein, *Letters*, 1973, pp. 11 ff.; Gil, *Palestine*, vol. 1, pp. 216 ff.

[71] See, for example, de Roover, "The Organization of Trade."

[72] See, for example, the business relations described in Michael, "Naharay ben Nissim," and Stillman, "East-West Relations."

[73] De Roover, "The Organization of Trade," pp. 51 ff.; Lopez and Raymond, *Medieval Trade*, pp. 174, 185–86; F. C. Lane, "Family Partnerships and Joint Ventures in the Venetian Republic," this JOURNAL, 4 (Nov. 1944), pp. 178 ff.; and Sombart, "Medieval and Modern Commercial Enterprise," pp. 31 ff.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

as agents and merchants simultaneously? Why were agency relations so flexible?

The theoretical framework can be utilized to provide an explanation for the above phenomena. The implicit contract within the coalition creates a capital premium; it increases the returns on a member merchant's capital since it reduces the wage premium that a merchant has to pay his agent to keep him honest. Thus a member merchant will hire as his agent another member merchant. The wage premium that has to be paid to such a merchant-agent is lower than the wage premium that has to be paid to a trader who acts only as an agent since in considering cheating the merchant-agent will take into account the fact that he will also lose the capital premium available to him. In addition, his own member agents will cheat him, and according to the implicit contract within the coalition, they will not be punished.[74]

This theoretical observation leads to a testable prediction and is a key in explaining the above phenomena. Since the implicit contract within the coalition creates a capital premium, merchants prefer to utilize other merchants as their agents. This preference may be reflected in the choice of forms of business association; agency relations will be organized through forms that requires agents' investment. Indeed, the common denominator of the forms of business association utilized by the Maghribi traders is that both parties invested in trade. In Italy, one may conjecture, agency relations were not organized within a coalition and thus a merchant preferred to employ as his agent an individual whose income from his alternative occupation was the lowest. Thus, merchants utilized agents through *commenda* relations.[75]

Organizing agency relations within the coalition, and the resulting reliance on a capital premium, explains why traders served as both agents and merchants simultaneously and why agency relations were as flexible as they were. More generally, the reliance on capital premium determined the social characterizations of the Maghribi traders group. One does not observe the existence of two separate "classes" among them—an agents class and a merchants class. Socially, as mentioned above, the Maghribi traders group was a homogeneous group of middle-class traders and each of them operated as a merchant and as an agent at the same time.

The theoretical framework clarifies additional phenomena related to agency relations. Among the Maghribi traders, agency relations were clearly not limited to family members or organized within a family firm. The essence of the family firm in twelfth-century Italy was that relatives

[74] An agent-merchant may avoid these losses by employing a nonmember agent. This requires a larger premium, however, and implies a reduction in the value of the merchant's capital.

[75] The cost of an honest agent is lower, the lower his income from his alternative occupation (his reservation utility). The Italian merchants preferred to hire agents without capital and therefore they could not utilize friendships and partnerships in agency relations.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

made up a partnership that was not dissolved after one partner's death; parties to the agreement were legally bound to fulfill the other partners' commitments. Among the Maghribi traders, traders' sons usually became traders and some evidence suggests that relatives were considered morally responsible for their relatives' business dealings.[76] However, intergenerational relations among the Maghribi traders were not aimed at preserving the family wealth under one roof. A trader's son started to operate as an independent trader during the father's lifetime. The father would typically help the son until he was able to operate independently. After the father's death, his estate was divided among his heirs and his business dissolved.[77] Why did the intergenerational relations among the Maghribi traders take this form? Why were family firms not established?

To comprehend these phenomena, note that for merchants and agents alike membership in a coalition was a valuable asset that could be transferred from father to son. The intergenerational transfer was also desirable from the coalition's point of view since it enabled the traders to base their relations upon a reputation mechanism despite the fact that human life is finite and thus a merchant might cheat in his old age. Sons were their fathers' "insurance policy," and relatives were considered morally responsible for their relatives' business dealings. Thus, an old agent would not cheat because he feared that he would be punished through the punishment imposed on his relatives. Only moral responsibility of relatives was required to enable the traders to base their relations upon a reputation mechanism despite the fact that each of them lived for a finite number of years.

The fact that family firms were not established within a coalition is not surprising. To assure truthful reporting and to reduce the cost of an honest agent, a merchant had to signal credibly that he would operate through an agent for many periods.[78] In Italy, one may conjecture, this commitment was made by establishing a family firm, whose lifespan was "infinite," and which was less likely to go bankrupt than a single merchant.[79] In a coalition this commitment is obtained without the establishment of a family firm. As long as an agent was honest, there

[76] See Goitein, *Letters*, p. 60; S. D. Goitein, *A Mediterranean Society: The Family* (Los Angeles, 1978), pp. 33 ff. Goitein noted (*The Family*, p. 33) that ". . . both the government and public opinion were prone to hold a father, or brother, or even more distant relative responsible for a man's commitments, although strict law, both Islamic and Judaic, did not recognize such a claim."

[77] Goitein, *Economic Foundations*, pp. 180 ff.; Goitein, *The Family*, pp. 40 ff.; Gil, *Palestine*, vol. 1, pp. 215 ff.

[78] Thus increasing the likelihood that the honest agent will receive his long-run gains.

[79] A family is a natural group and its members are thus honest in their dealings with each other regardless of the organizational form of the family's wealth. That is, agency relations between family members can be conducted when each family member has his own business. My conjecture is that the family aggregated its capital in a family firm to facilitate the establishment of agency relations between the family members and outsiders.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

was a high probability that he would be hired by another coalition member after ceasing to operate for a particular merchant.

Among the Maghribi traders, agency relations resembled the relations between a modern firm and its workers in that typically no explicit legal commitment governed the length of the relationship. Where a commitment was made, it was for a short period of time. *Commenda* and partnership contracts were usually limited to a specific trade venture or season; friendships and factor relations could be terminated at any time by either party. The duration of agency relations ex post varied from a single season to several generations, with sons replacing their fathers.[80] Agents appear to have performed honestly even when they knew beforehand that they would not be rehired. If trust relations were based upon ethics or a social control system, one would expect to find long-term contracts (or at least some distribution of contracts' length). Once a trader identified an "honest" agent, he would try to operate through him as long as he could. Long-term contracts would presumably facilitate this aim. On the other hand, if agency relations were based upon a two-party reputation mechanism, how can we explain honest functioning of agency relations which the parties knew would terminate after a short time?

Whenever a reputation mechanism is employed, a merchant prefers short-term contracts. The shorter the contract, the sooner the merchant can punish a cheater, and the less he will have to pay to keep his agent honest.[81] The ability to establish agency relations that were known beforehand to be of short duration is clear once one realizes that the Maghribi traders organized agency relations within a coalition.

Similar reasoning can be utilized to address another issue. The Maghribi traders used a "per-trade-venture" (rather than "per-agent" or "multi-trade-venture") accounting system, in which the income and expenses associated with each trade venture were detailed.[82] What is the rationale (if any) behind the "per-venture" accounting method?

A "per-venture" accounting system is more efficient than a multi-venture accounting system whenever a reputation mechanism is employed. Calculating the gain and loss after each transaction enables

[80] Goitein, *Economic Foundations*, pp. 169–70, 178; and Greif, "Sicilian Jews," p. 133.

[81] In the Italian trade cities, *commenda* relations were also of short duration (see de Roover, "The Organization of Trade," p. 49, and Lopez, "The Trade of Medieval Europe," p. 323). No satisfactory explanation has been furnished for this phenomenon, however. Lopez, "The Trade of Medieval Europe," p. 323, conjectured that "the short duration of the *commenda* contract may have depended originally upon the fact that in the early Middle Ages Catholic merchants were not allowed to reside in Byzantine or Muslim territory." This explanation would not explain the behavior of the Maghribi traders. Moreover, Lopez himself seems to have been less than fully satisfied with this explanation, noting as an alternative that ". . . investors were afraid to entrust their money to a travelling merchant for more then one round trip." The explanation suggested below gives economic meaning to Lopez's intuition.

[82] Goitein, *Economic Foundations*, pp. 178, 204 ff.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

merchants to compare their agents' reports with any relevant information they have obtained from other sources. Multi-transaction reporting would complicate such an examination.

The theoretical framework also clarifies the economic reasoning related to two additional empirical regularities. As mentioned above, agency relations were established within a well-defined subgroup of the Jewish community. Members of this subgroup emigrated abroad in order to cooperate in trade rather than operating through members of other Jewish communities, and generations after a Maghribi trader emigrated from the Maghrib, his descendants continued to operate in long-distance trade through the descendants of other Maghribi traders. Evidence of business association between Maghribi traders and non-Maghribi traders (Jewish or Muslim) is rare.

The second interesting empirical regularity is that the Maghribi traders retained their separate identity within the Jewish communities as long as they were active in long-distance trade. They operated in the Mediterranean during the eleventh century until they, as other traders from the Muslim world, were forced by the rising naval power of the Italian city-states to abandon this trade. During the twelfth century they devoted their commercial ability to the trade between Egypt and the Far East until they were forced by the Muslim rulers of Egypt to abandon that trade during the second half of twelfth century.[83] At that point, as far as we know, they integrated completely within the Jewish communities and vanished from the stage of history. In other words, the Maghribi traders retained a separate social identity within the Jewish world as long as they were active in long-distance commerce.

These two empirical findings are puzzling. Why did the Maghribi traders retain their separate identity as a social group within the Jewish world as long as they were active in long-distance commerce? What are the connections between the existence of a social structure—the Maghribi traders' group—and their occupation—long-distance trading?

Why were business associations and trust relations limited to a relatively narrow group? Why were traders motivated to emigrate and serve as business associates abroad, rather than employ local Jews as business associates, thus saving the cost of emigration? The fact that agency relations were held only among Maghribi traders is puzzling in particular, since during this period the trade with the Christian world was considered to be a most profitable trade.[84] Nevertheless, the

[83] The Maghribi traders' operation in the Far East trade will be described in Goitein's book (forthcoming). See also S. D. Goitein, "The Beginning of the Karim Merchants and the Character of Their Organization," *Journal of Economic and Social History of the Orient*, 1 (Apr. 1958), pp. 175–84; Goitein, *Economic Foundations*, pp. 148–49; Gil, *Palestine*, vol. 1, pp. 215 ff.

[84] The profitability of this trade is reflected in many documents. For example, around 1085 a Maghribi trader reported that he sold brazilwood (a wood grown in India from which red dye was produced) in a Palestinian port to Rum for a 150 percent profit. About twenty years earlier a

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

Maghribi traders did not cooperate with Jewish traders who were active during this period in the Christian world. There were no political restrictions that could prevent cooperation between the Maghribi traders and these traders. Furthermore, there were communal and cultural ties between the Jews of these countries and the communities in which the Maghribi traders lived. Despite the economic motive, the cultural and social associations of the Maghribi traders are never mentioned as establishing business associations with a Jew from the Christian world.[85] If trust relations were based upon pure or impure altruism, and emigration to the Christian world was very costly socially and culturally, one would expect to find business associations with local Jews. Why is such association not observed?

These phenomena are explained by utilizing the theoretical framework to address the determinants of the coalition's size. The coalition's boundaries are determined by the information-transmission mechanism that provides information about agents' past conduct. Once a mechanism for information transmission through mutual acquaintances is established, the coalition that utilizes this mechanism will not expand. Agency relations will be held only among individuals with respect to whom information is available. Given the implicit contract within the coalition, a nonmember merchant will never hire a coalition member agent (that is, an agent about whom information is available only to members). The premium he has to pay to a member agent to keep him honest is higher than the premium he has to pay to a nonmember. The difference in the required premium results from the fact that a member agent has an option not available to a nonmember agent, namely, to be employed within the coalition after he cheated a nonmember merchant. This increases the short-run gains of a member agent from cheating a nonmember merchant. To offset this increase, a nonmember merchant has to pay a higher premium to a member agent than to a nonmember. Given that a nonmember will not hire a member agent, and given the implicit contract within the coalition, the premium that a member merchant has to pay a member agent is less than the premium he has to pay a nonmember. Thus a member merchant will employ only member agents.

In short, due to the premium differential resulting from the implicit

---

merchant from Palermo (Sicily) complained that even (!) the Rums were not ready to buy the inferior black ginger that had, therefore, to be sent to another European country in the hope that it would be sold there. Bodl. MS Heb. c 28, f. 11, ll. 11–13; Dropsie 389, b, ll. 6 ff., Goitein, *Economic Foundations*, p. 45.

[85] For a discussion of the communal relations and the economic motive, see Goitein, *Economic Foundations*, pp. 44, 211; Goitein, *Studies in the Economic History*, p. 55; Greif, "Sicilian Jews," p. 157; TS 12.114, Simha Assaf, *Texts and Studies in Jewish History* (in Arabic and Hebrew) (Jerusalem, 1946), pp. 135–37. A Maghribi trader who sailed to Amalfi does not mention any commercial cooperation with local Jews. See TS 8 Ja I, f. 5, Goitein, *Letters*, pp. 44–45.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

contract within the coalition, coalitions tend to be "closed." In an economy in which coalitions are utilized, a segregation will emerge, and its extent is determined by the information-transmission mechanism that underlines the economy.

This theoretical examination of the coalition's boundaries can be utilized to address the above puzzles. Since the Maghribi traders organized agency relations within a coalition, member merchants hired only member agents and "trust" is observed only within the coalition. This also explains why the Maghribi traders established colonies in trade centers around the Mediterranean and did not established agency relations with Italian Jewish merchants. The premium required to keep a nonmember agent honest was higher than the one required to keep a member agent honest. Furthermore, once a coalition member emigrated he was certain to be employed as an agent by the other coalition members. Since the Maghribi traders adopted the culture of the Muslim world, emigration within this world was culturally and materially easy. The emigration to Italy, however, with its different cultural heritage, was much more difficult. Employing nonmember Italian Jews as agents was prohibitively expensive.

The immigration process of the Maghribi traders from around Baghdad to Tunisia established patterns of information transmission. The social ties among these immigrants provided them with a mechanism for information transmission which, in turn, determined the extent of agency relations. At the same time the fact that agents were hired only from within the Maghribi group gave their separate social identity a function and preserved this identity. It provided the social associations and interactions among individuals which are necessary for the continuation of a social structure. In short, the Maghribi traders' separate identity within the Jewish communities was preserved because it provided a network for the transmission of information that facilitated agency relations, while the agency relations themselves provided the social interactions required for retaining their separate identity. When the Maghribi traders ceased to operate in long-distance trade and to utilize agency relations, the social interactions diminished, and the social structure—the Maghribi traders group—lost its vitality. It was a social structure—the Maghribi traders group—that provided the information required for the operation of an economic institution—the coalition. On the other hand, the closeness of this economic institution preserved the social structure.

Information Flows within the Coalition

Coalition members enjoyed internal information flows that facilitated the reputation mechanism. These information flows provided the information required to uncover cheating, and contributed to the "capital premium" available to honest coalition members. Information was

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

crucial to business decision-making; however, coalition members blocked a cheater's access to the coalition's internal information flows.

For diversification each coalition member associated with many coalition members residing in different trade centers.[86] One of the coalition member's duties was to supply his business associates with trade-related information.[87] This information enabled the traders to respond appropriately to price signals. The importance of information is indicated in many letters in which the writer requests information or mentions that he is expecting to receive additional information before making a business decision.[88]

Such information allowed a merchant to uncover cheating. Traders who operated abroad often knew what trade circumstances an agent faced or had access to information that might indicate what these circumstances were. They passed this information on to the merchant, thus helping him evaluate his agent's conduct.[89]

Within the Maghribi coalition, information regarding the circumstances that an agent faced was essentially free, since it was obtained as a by-product of the commercial activity and passed on along with other commercial correspondence. The fact that this information was essentially free is important, since it made credible the merchant's claim that he would monitor his agents. Without such monitoring, of course, the reputation mechanism could not have functioned.[90] The information transmission per se did not solve the contractual problem associated with agency relations, however, since evidence provided by business associates was not always acceptable in court and the cost of applying to the court was very high.

Information flows within the coalition also enabled agents to signal that they were honest. Just as modern firms hire auditors to establish the legitimacy of their financial statements, eleventh-century Maghribi agents generally conducted important business in the presence of other coalition members, including in their reports the names of those

[86] For example, a Sicilian merchant, Jacob ben Isma'il, had at least five business associates who lived in three different trade centers. See Greif, "Sicilian Jews," p. 133. An important sedentary merchant like Naharay ben Nissim of Fustat had business relations with dozens of coalition members from Spain to Syria. See Naharay archive published in Michael, "Naharay ben Nissim," and letters to him published in Gil, *Palestine*, vol. 3, pp. 96 ff.

[87] Trade-related information, including prices, ship arrivals and departures, the general economic and political situation, and so forth, appears in many *geniza* documents. See, for example, TS 20.76; TS 13 J 15, f. 9, Goitein, *Letters*, pp. 113–19, 320–22; TS 10 J 11, f. 22, a, ll. 11–12. Compare Goitein, *Economic Foundations*, pp. 195, 201 ff., and additional reference in Greif, "Sicilian Jews," p. 95, n. 60.

[88] See, for example, Dropsie 389, a, ll. 2–4, Gil, *The Jews in Sicily*, pp. 113–25.

[89] See, for example, DK 22, a, ll. 11, ff., Gil, *The Jews in Sicily*, pp. 97–106, and ULC Or 1080 J 42, Gil, *Palestine*, vol. 3, p. 300.

[90] According to the theory advanced here, an agent will never cheat. Thus, if monitoring agents is costly, the merchant's claim that he will monitor is not credible. Knowing that the merchants will not monitor, agents will cheat. Anticipating this, a merchant will not employ agents to begin with.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

witnesses whom the merchant knew, thus enabling him to verify the agent's report.[91]

CONCLUSIONS

The fate of the Maghribi traders was similar to that of the Muslim traders in the Mediterranean. In the second half of the eleventh century the Maghrib was conquered by the Bedouin and the military and naval expansion of the Latin world led to a decline in Muslim trade in the Mediterranean.

The extent to which coalitions ruled Mediterranean trade during the eleventh century is not known for certain. In general the cultural, social, and occupational aspects revealed in the *geniza* mirror those suggested by Muslim sources regarding the Muslim Mediterranean world.[92] Perhaps Muslim traders adopted similar institutions. On the other hand, the coalition may represent a unique economic institution developed by the Maghribi traders.

The Maghribi traders overcame the contractual problems associated with agency relationships by organizing such relationships through a nonanonymous organizational framework, the coalition. Within the coalition an internal information-transmission system served to balance asymmetric information and a reputation mechanism was used to ensure proper conduct. This reputation mechanism explains the observed "trust" relations among the traders. The "trust" did not reflect a social control system or the internalization of norms of behavior (although these factors play a role in any economic system). Rather, the Maghribi traders established a relationship between past conduct and future economic reward. As a result, agents resisted the short-term gains attainable though deception, since the reduction in future utility resulting from dishonest behavior outweighed the associated increase in present utility. Since this fact was known beforehand to all traders, agents could acquire a reputations as honest agents.

What enabled the traders to establish a gap between the lifetime expected income of an honest agent and a cheater was the fact that each coalition member benefited from a reduction in transaction costs. The

[91] For a discussion of auditing, see M. C. Jensen, and W. H. Meckling, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure," *Journal of Financial Economics*, 3 (Oct. 1976), pp. 305–60. For historical survey of auditing practices, see R. L. Watts, and J. L. Zimmermann, "Agency Problems, Auditing and the Theory of the Firm: Some Evidence," *Journal of Law and Economics*, 26 (Oct. 1983), pp. 613–33. For the use of witnesses, see, for example, DK 13, Section G; ULC Or 1080 J 48; Bodl. MS Heb. a2 f.17, all published in Goitein, *Letters*, pp. 32, 92–93, 103. See also the discussion in Goitein, *Economic Foundations*, pp. 168, 196, and Greif, "Sicilian Jews," p. 143. It should also be noted that eyewitnesses, in certain circumstances, are also required by the Jewish law. See Maimonides, *Mishne Torah*, p. 214.

[92] For this similarity, especially with regard to trade relations and practices, see Goitein, *Economic Foundations*, pp. 70–74, and Udovitch, *Partnership and Profit*.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms

coalition enabled the traders to reduce the transaction cost associated with agency relationships by reducing the wage premium that had to be paid to keep an agent honest, the cost associated with inability to operate through agents in relations known beforehand to be of short duration, and the cost of acquiring information on prospective agents.

The common religious-ethnic origin of the traders provided the natural boundaries for the coalition and served as a signal where information regarding past conduct could be obtained, while the commercial and social ties within the coalition served as a network for the transmission of information. The information-transmission mechanism generated by the social structure—the Maghribi traders group—supported the operation of an economic institution—the coalition. On the other hand, this economic institution, which promoted organizing agency relations only among members of this social structure, motivated the Maghribi traders to interact and thus to preserve their social structure, their distinct identity within the Jewish world.

We see, then, that the family firm was not the only medieval form of mercantile enterprise. Coalitions existed as well and may have been superior to family firms in that they provided flexibility in agency relations unachievable within family firms. Interestingly, empirical evidence on exchange relations in contemporary Wisconsin and South East Asia suggests that reputation and implicit contracts among members of "coalitions" still play an important role in helping businessmen overcome contractual problems.[93]

The extent to which coalitions and other nonmarket institutions contributed to the development of long-distance trade, the forms of these institutions, and their evolution and interrelationships with institutions related to production are yet to be explored. Analysis of the nonmarket economic institutions employed in different historical episodes will lead the way to a comparative institutional investigation that may shed light on the evolutionary process of economic institutions.

[93] J. T. Landa, "A Theory of the Ethnically Homogeneous Middleman Group: Beyond Markets and Hierarchies," Working Paper, The Hoover Institution, Stanford University, 1988. S. Macaulay, "Noncontractual Relations in Business: A Preliminary Study," *American Sociological Review*, 28 (Feb. 1963), pp. 55–70.

This content downloaded from
93.41.112.108 on Mon, 05 Dec 2022 18:13:03 UTC
All use subject to https://about.jstor.org/terms