

Contract Enforcement, Institutions and Social Capital: the Maghribi Traders Reappraised

JEREMY EDWARDS
SHEILAGH OGILVIE

CESIFO WORKING PAPER NO. 2254
CATEGORY 10: EMPIRICAL AND THEORETICAL METHODS
MARCH 2008

An electronic version of the paper may be downloaded

- *from the SSRN website:* www.SSRN.com
- *from the RePEc website:* www.RePEc.org
- *from the CESifo website:* www.CESifo-group.org/wp

Contract Enforcement, Institutions and Social Capital: the Maghribi Traders Reappraised

Abstract

Economists draw important lessons for modern development from the medieval Maghribi traders who, according to Greif, enforced contracts multilaterally through a closed, private-order ‘coalition’. We show that this view is untenable. The Maghribis used formal legal mechanisms and entered business associations with non-Maghribis. Not a single empirical example adduced by Greif shows that any ‘coalition’ actually existed. The Maghribis cannot be used to argue that the social capital of exclusive networks will facilitate exchange in developing economies. Nor do they provide any support for the cultural theories of economic development and institutional change for which they have been mobilised.

JEL Code: O17.

Keywords: contract enforcement, reputation, legal system, social network.

Jeremy Edwards
Faculty of Economics
University of Cambridge
Sidgwick Avenue
Cambridge CB3 9DD
United Kingdom
je12@econ.cam.ac.uk

Sheilagh Ogilvie
Faculty of Economics
University of Cambridge
Sidgwick Avenue
Cambridge CB3 9DD
United Kingdom
sco2@econ.cam.ac.uk

March 2008

We are extremely grateful to Hilla Zmora for his generous and invaluable translation of a number of Geniza letters from Hebrew to English, and to Moshe Gil for his kindness in reading a draft of this paper and advising on translation and interpretation of the Geniza letters. We would also like to thank André Carus, Tracy Dennison, Tim Guinnane, and Neeraj Hatekar for their helpful comments on an earlier version of this paper.

1. Introduction

Economists frequently refer to historical institutions in discussions of the institutional determinants of economic development and the economic role of social capital. Particular attention in recent years has been lavished on the Maghribi traders of the eleventh-century Mediterranean, following the work of Greif (1989, 1993). In the absence of formal legal contract enforcement, the Maghribis are supposed to have developed an informal contract-enforcement mechanism based on multilateral relationships within a closely-knit ‘coalition’. This mechanism is held to exemplify both the feasibility of private alternatives to the public legal system as a basis for economic transactions and the key role of social capital and informal institutions in developing economies. Furthermore, the Maghribis are supposed to have held ‘collectivist’ Judaeo-Muslim beliefs and norms which led them to develop different institutions from their ‘individualistic’ Christian counterparts, and this is held to exemplify the pivotal role of cultural differences in explaining institutional and economic development. Economists thus draw far-reaching lessons from Greif’s portrayal of the Maghribi traders. But is this portrayal accurate?

The Maghribis were a distinct group of Jewish traders from the ‘Muslim West’ – northern Africa west of Egypt, together with Muslim Sicily and Spain – who by the eleventh century were trading throughout the Muslim Mediterranean, from Iberia to Constantinople.¹ A Maghribi trader in one location, say Fustat (Old Cairo) in Egypt, could greatly reduce his costs by arranging for a Maghribi trader in another location, say Palermo in Sicily, to act as his agent in selling his goods in Palermo. But distance and delays in communication meant that any agent had scope for opportunistic behaviour: the Palermo agent, for example, might tell the Fustat principal that his

¹ Goitein (1967), 43; ‘al-Maghreb’ referred to the ‘Muslim West’.

goods had sold at a lower price in Palermo than the agent actually received, and pocket the difference. For such business associations to be feasible, distant traders needed some way of preventing opportunistic behaviour.

Formal legal contract enforcement among the Maghribis was inadequate for this purpose, according to Greif. Instead, he claims, they developed an informal enforcement mechanism based on repeated interactions and multilateral punishments imposed by the entire body of Maghribi traders. Greif calls this mechanism a 'coalition', which he defines as

... a non-anonymous 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 ... 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.²

Greif contends that the Maghribi traders satisfied the conditions of a well-defined group with good information flows that are necessary for such an informal contract-enforcement mechanism to be effective:

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.³

Greif develops a theoretical model to explain why it is in the interest of all other coalition members not to trade with a member who behaves opportunistically. In this model, merchants hire agents to provide trade-related services. Given that hiring decisions are made in the framework of the coalition, the uncoordinated actions of the traders give rise to a situation in which the equilibrium payment required to hire an

² Greif (1989), 867-8.

³ Greif (1989), 882.

agent who has not behaved opportunistically is lower than that required to hire an agent who has. Hence all merchants strictly prefer to hire agents who have not acted opportunistically, i.e., it is in each trader's interest to impose the multilateral punishment required by the coalition mechanism.⁴ Greif argues that the Maghribi traders developed a coalition along these lines, which enabled them to enforce contracts with distant agents, in turn facilitating the growth of long-distance trade in the eleventh-century Mediterranean.

Greif's portrayal of Maghribi contract enforcement is routinely cited in the economics literature as showing that, in circumstances of imperfect monitoring and limited enforcement, economic transactions are sustained by long-term personal relationships within a well-defined group.⁵ It is also frequently used to argue that complex economic transactions do not necessarily depend on the existence of a public legal system: the Maghribi 'coalition' is regarded as an illustration of a private-order contract enforcement mechanism that can substitute for the legal system.⁶

Greif's view of the Maghribis has also strongly influenced the literature on the role of social capital in economic development. In the absence of formal institutions that can support market-based exchange, closely-knit and multi-stranded social networks are regarded as generating a social capital of norms, information and sanctions that provide an alternative framework within which exchange can develop. The Maghribi traders' coalition is viewed as a prime example of a social network generating the social capital needed for exchange in a developing economy. Thus, for instance, the World Bank begins the 2002 World Development Report, entitled Building Institutions for Markets, with Greif's description of the Maghribi traders'

⁴ Greif (1993), 534-5.

⁵ Costa and Kahn (2007), 1470; Helpman (2004), 117-8; Kranton and Minehart (2001), 500; La Ferrara (2003), 1731; MacLeod (2007), 614.

⁶ Clay (1997), 203, 207-08, 214 226; Faille (2007); Greif (1989), 866; Greif (2006), 58-90; McMillan and Woodruff (2000), 2626, 2433-5; O'Driscoll and Hoskins (2006), 476.

coalition, which is claimed to hold important lessons for modern developing countries.⁷ In their chapter on social capital for the Handbook of Economic Growth, Durlauf and Fafchamps (2005) refer to the Maghribis as an example of ‘the role of social networks in circulating information about breach of contract, thereby enabling business groups to penalize and exclude cheaters’.⁸ In discussing the contribution of social capital to industrialisation, Miguel et al. (2005) mention the Maghribi traders as an example of how ‘social networks can also provide access to distant markets and permit transactions that are separated in time and space’.⁹

The Maghribi traders also provide the central prop for a particular theory of culture and economic development. Greif hypothesizes that the Maghribis held collectivist cultural beliefs which led them to develop contract-enforcement mechanisms based on collective sanctions, while the merchants of medieval Italian cities such as Genoa held individualistic cultural beliefs which led them instead to develop formal legal mechanisms (Greif 1994). The Genoese use of formal legal contract enforcement is supposed to have generated further institutional innovations that promoted economic growth, while the Maghribis’ reliance on trust within their closed social network stifled the institutional adaptations needed for long-term development. This hypothesized cultural contrast between the Maghribi and the Genoese traders is now often adduced as evidence that beliefs and norms are the linchpin of institutional formation and economic development.¹⁰ North (2005), for instance, endorses the view that cultural beliefs determine institutions and growth, echoing Greif on how the Maghribis

developed in-group social communication networks to enforce collective action, which, while effective in relatively small homogeneous ethnic groups,

⁷ World Bank (2002), Overview, 1, 3, 5-6.

⁸ Durlauf and Fafchamps (2005), 1653.

⁹ Miguel et al. (2005), 757.

¹⁰ As argued by Greif (2006), 15-23, 39, 45.

do not lend themselves to the impersonal exchange that arises from the growing size of markets and diverse ethnic traders. In contrast the Genoese developed bilateral enforcement mechanisms which entailed the creation of formal legal and political organizations for monitoring and enforcing agreements – an institutional/organizational path that permitted and led to more complex trade and exchange.¹¹

Aoki (2001) buttresses his general theory of institutions as self-sustaining systems of ‘shared beliefs’ by referring to Greif’s account of how ‘collectivist’ beliefs caused the Maghribis to choose institutions which ultimately circumscribed the capacity of their economy to develop.¹²

Greif’s work on the Maghribis is thus widely cited, but to the best of our knowledge there has been no critical assessment of the empirical basis for his hypothesis about how they enforced commercial contracts. Assessing the accuracy of this portrayal is the more important given its central role in theories of social capital, modern development, and institutional change. This paper provides such an assessment.

2. Theoretical and Empirical Background

The problem faced by the Maghribis in conducting long-distance trade using business associates is a particular example of a general difficulty that arises with most forms of market transaction. Trade requires transferring property rights to another person. This means entering into a contract. Unless it is a spot trade – i.e. good and payment are exchanged simultaneously – reneging is possible. The seller may take the payment and not give the good, or the buyer take the good and not give the payment. So contracts need to be enforced. If one party does not trust the other to fulfil his side

¹¹ North (2005), 136.

¹² Aoki (2001), e.g. 10, 73.

of an agreement, then he will refrain from trade, and exchange which could profit both parties will not occur. To avoid this outcome, contract enforcement methods are needed to deter opportunistic behaviour. One method is for the legal system to impose sufficiently costly sanctions that opportunism is less attractive than complying with contracts. But even in economies with highly developed legal systems, the cost of litigation and the difficulty of proving information in court mean that people use other contract-enforcement methods, with the legal system serving only as a last resort.¹³ Long-term relationships arising from repeated interactions can enable informal contract enforcement, with sanctions imposed by the parties themselves rather than the legal system.

The most straightforward situation in which long-term relationships enable informal contract enforcement is when repeated interactions occur between the same parties. If opportunistic behaviour by one party would cause his relationship with the other party to break down, and parties do not discount the future too heavily, then the long-term cost of opportunism can outweigh its short-term benefit.¹⁴ This informal enforcement method only requires information about opportunism to be transmitted to the parties involved. But it depends on the same parties having repeated interactions, a condition that is often not satisfied.

Even if repeated interactions between the same parties are rare, informal contract enforcement is still possible provided that there are repeated interactions between different parties all of whom are members of a stable and well-defined group.¹⁵ If it is in the interests of all other group members to refrain from trade with a member who has behaved opportunistically, then this multilateral punishment means

¹³ Macaulay (1963).

¹⁴ The Folk theorems of the literature on repeated games provide the basis for this conclusion. Osborne and Rubinstein (1994), Ch. 8, provide an excellent discussion with full references to a large literature.

¹⁵ See Kandori (1992) and Ellison (1994).

that opportunism has a long-term cost (the lost benefits of future trade with group members) which can outweigh its short-term benefits. The Maghribi traders' 'coalition' hypothesized by Greif is an example of such an informal contract enforcement mechanism.

However, as Dixit (2004) points out, this enforcement method requires a number of conditions to be satisfied.¹⁶ In particular, information about opportunistic behaviour must be transmitted quickly and accurately to all group members, in order that multilateral punishment of opportunistic behaviour is swift (so opportunism inflicts costs that are not discounted too much) and accurate (so no opportunist goes unpunished). The informational requirements of this multilateral enforcement method are thus much greater than those for bilateral enforcement based on repeated interactions between the same parties.

What is known of the Maghribi traders is derived almost exclusively from documents found in the Cairo Geniza.¹⁷ A Geniza is a room in which discarded writings which may contain the name of God were deposited. The Cairo Geniza was attached to a synagogue in Fustat (Old Cairo), the ancient capital of Islamic Egypt. It differed from other Genizas in containing a large quantity of purely secular writings, such as 'official, business, learned, and private correspondence, court records, contracts and other legal documents, accounts, bills of lading, prescriptions, etc.'¹⁸ These letters were typically written in Arabic using Hebrew characters. Much of the material that survived was fragmentary, but Goitein (1973) estimated that the Cairo Geniza contained about 1200 more-or-less complete business letters written by Jewish long-distance traders in the eleventh, twelfth and thirteenth centuries.¹⁹ The majority

¹⁶ Dixit (2004), 60.

¹⁷ See Goitein (1967), 1-28, for a full discussion of the documents of the Cairo Geniza.

¹⁸ Goitein (1973), 3.

¹⁹ Goitein (1973), 3-4.

of them originate in the eleventh century: Gil (2003) arrives at a collection of 818 letters and other documents by selecting almost all of the eleventh-century letters of Jewish traders in the Cairo Geniza, as well as a few earlier letters.²⁰ According to Goitein, about 90 per cent of the eleventh-century business correspondence found in the Cairo Geniza was written by Maghribi traders.²¹

The extraction of evidence about the economic arrangements of the Maghribis from the Geniza letters requires a great deal of specialised knowledge about these documents. Fortunately the two major scholars of the Cairo Geniza – S. D. Goitein and Moshe Gil – have both written extensively about these arrangements and have published translations of the letters together with editorial comments on them.²² The discussion in this paper is based on the documentary sources translated and discussed in the publications of Goitein, Gil, and other Geniza scholars, which are the same as those used by Greif.

3. The Use of the Legal System by the Maghribi Traders

Contract-enforcement problems exist in all economies and are particularly acute in international trade because of the gap in space and time between purchase and payment. So all long-distance traders require institutional arrangements for enforcing contracts. The Maghribi traders were heavily involved in long-distance trade in the eleventh century, raising the question of what institutions made this possible.

²⁰ Gil (2003), 274.

²¹ Goitein (1970).

²² Goitein (1973) is a selection of 80 letters, while Gil has published his collection of 818 letters in two books (Gil 1983b, 1997).

Greif claims that the institution that enabled this to happen was a private-order ‘coalition’ spontaneously generated by the merchants themselves. He argues that ‘in the eleventh century the legal system failed to provide a framework within which agency relations could be organized’.²³ Consequently, he claims, the Maghribi traders did not make much use of it: ‘many, if not most, of the business associations mentioned in the Geniza were conducted without relying upon the legal system’.²⁴ This is the reason why the Maghribi traders are supposed to have developed the ‘coalition’ – it was an informal alternative to non-existent or inadequate legal mechanisms. Does the evidence support Greif’s view that the legal system was ineffective and irrelevant to long-distance trade by the Maghribis?

The Geniza documents show that the Maghribi traders did have access to a legal system that was formal and public in the sense that it was not a private-order institution generated by the Maghribi community internally, but consisted of legal mechanisms provided by, and accessible to, persons outside that community. In the Muslim Mediterranean during this period, individuals of a given religious group were subject to the law of that group irrespective of the territory in which they lived.²⁵ Thus the Maghribi traders’ first resort was to the Jewish legal system – a formal and public set of mechanisms used by the Jewish community as a whole, not just by the Maghribis. However, as the Geniza documents reveal, the Maghribi traders also made considerable use of the Muslim legal framework. Even in Jewish courts, the legal form of partnership that was used as the basis for business associations was typically the Muslim, not the Jewish, one.²⁶ Furthermore, although civil cases were largely

²³ Greif (1989), 865.

²⁴ Greif (1989), 864.

²⁵ Goitein (1967), 66-8.

²⁶ Goitein (1967), 72.

brought before Jewish courts,

actions or deeds made before a qādī (Muslim judge) are often referred to. Frequently, and for reasons which still need clarification, the same transaction was made both before a Muslim and a Jewish court, or one part was brought before a public tribunal and a complementary action before a Jewish court.²⁷

If a Maghribi trader failed to secure adequate legal remedy from the Jewish legal system, he could then appeal beyond it. Goitein describes how if a Jew failed to pay his debts, Jewish court officials would ‘bring him before the government’, going so far as ‘to reserve themselves the right to “extradite” him to the Muslim authorities’.²⁸ A debt dispute between Maghribi merchants could also be ‘brought before the sultan’, who evidently also provided formal, public contract enforcement to which Maghribi traders sometimes voluntarily resorted.²⁹ According to Gil, conflicts between Maghribi merchants also gave rise to situations in which the Muslim authorities sent soldiers to compel the defaulting debtor to render payment.³⁰

Both in principle and in practice, therefore, the Maghribi traders had formal legal mechanisms at their disposal. These included legal mechanisms provided by their own officials and courts within the Jewish community, those provided by the majority Muslim community, and those provided by the central authorities reporting to the sultan. But perhaps, as Greif claims, these legal mechanisms were inadequate for the specific challenges posed by contract enforcement in long-distance trade?

Consider first the extent to which business associations between Maghribi traders had a formal legal basis. At one point in his survey, Goitein (1967) writes that informal cooperation between business friends ‘was the main pattern of international trade’ and that such trade ‘was largely based, not upon cash benefits or legal

²⁷ Goitein (1955), 79.

²⁸ Goitein (1967), 259-60 with note 192.

²⁹ Gil (2003), 299.

³⁰ Gil (2003), 318.

guarantees, but on ... mutual trust and friendship'.³¹ This might appear to support Greif's assertion that the Maghribi traders' business associations typically did not rely on the legal system. However, Goitein qualifies his claim by noting that 'more often than not, informal cooperation was accompanied by one or more partnerships concluded between the correspondents, frequently with additional partners'.³² Goitein then describes the nature of business partnerships among the Maghribi traders. It emerges from his exposition that business partnerships were a well-developed legal institution that set out formally the various aspects of an economic relationship between contracting parties, such as their investments, their shares in profits and losses, and the times at which accounts were to be rendered.³³ Thus informal cooperation between business friends did not preclude the use of the legal system to provide a formal basis for many aspects of the business relationship between them. Goitein's emphasis on the informal aspect of Maghribi business associations seems to reflect his assessment that the personal relationship between the two parties was typically long-term while the business partnerships between them were short-term: 'Informal business cooperation could last for a lifetime, even for several generations. Formal partnerships were of short duration in principle and limited to specific undertakings ...'.³⁴ In a later assessment, Goitein puts even less emphasis on informal cooperation as a method by which the Maghribi traders organized their long-distance trading ventures. He continues to recognise that informal cooperation played a role, but states that 'the organization of the overseas trade was effected largely through partnerships'.³⁵ Goitein also describes the dissolution of partnerships as time-consuming and difficult, which casts doubt on his own characterization of such

³¹ Goitein (1967), 165, 169.

³² Goitein (1967), 167.

³³ See Goitein (1967) 169-79 for a full discussion.

³⁴ Goitein (1967), 169-70.

³⁵ Goitein (1973), 11-12.

associations as shortlived and limited to specific undertakings.³⁶ It appears, at any rate, that although a long-term relationship between business friends may typically not have been based on a legal contract, the individual ventures that formed the component parts of the long-term relationship did largely have a formal legal basis.

The coexistence of such long-term informal business friendships with short-term legal partnerships for particular ventures suggests that both the legal system and an informal mechanism played some role in Maghribi contract enforcement. But as described by Goitein this was an informal mechanism based on repeated bilateral interactions between the same parties, in which any opportunism would have resulted in bilateral punishment. This is not the same as the ‘coalition’ mechanism hypothesized by Greif, based on repeated interactions among members of a well-defined but much larger group, in which opportunism against one member would result in multilateral punishment by the entire group, even members not personally associated with the victim.

The importance of the legal system in formally registering the basis upon which commercial ventures were undertaken emerges from Gil’s analysis of 818 letters in the Cairo Geniza written by eleventh-century Jewish merchants. Gil concludes that all Maghribi business associations ‘were based on a deed formulated by the court, in which the parties of the partnership were specified, as were the other conditions’.³⁷ He qualifies this conclusion by noting that sometimes one trader would ask another, who was going to be in a place where the first trader wished to sell goods, to involve himself in the sale, and receive a commission, despite the absence

³⁶ Goitein (1967), 179

³⁷ Gil (2003), 274 fn 2. Note that Gil uses the term ‘partnership’ to refer to all forms of business association (see his discussion in the main text of p. 274), perhaps because he doubts that the merchants themselves recognised the distinctions between legal forms of enterprise made in modern studies.

of a formal deed.³⁸ He also points out that although most business associations were based on an agreed formal division of profits according to the initial investment, there are some cases in which business associations were restricted to mutual service without division of profits.³⁹ Thus some Maghribi trade took place without a legal basis, but this was an exception to the general rule that business associations between Maghribi traders were based on legal contracts. The evidence marshalled by both Goitein and Gil thus shows clearly that formal legal mechanisms provided an important basis for long-distance trade between Maghribis, contrary to Greif's claim that the Maghribi traders made no use of the legal system to specify the terms of their business associations.

The Maghribis' heavy reliance on formal, legal contract enforcement is confirmed by their intensive registration of contracts in writing. An important ingredient in enforcing contracts is the establishment of what both parties have agreed to and what they actually deliver. Such information can be gathered through personal observation of each party by the other, observation by others who report orally to the parties, or maintenance of written records. The Maghribi traders regarded it as a matter of course to keep accounts showing the results of transactions undertaken within their business associations, to request copies from those they did business with, to provide such copies when requested, and to collate their accounts with those of their business associates elsewhere, and they made use of the courts to establish the veracity of this information.⁴⁰ For example, Maghribi traders used the courts to confirm both the identity and the reliability of the persons drawing up the accounts of business associations.⁴¹ They also used the courts to certify correspondence

³⁸ Gil (2003), 274 fn 2, 295.

³⁹ Gil (2003), 274, 277.

⁴⁰ Gil (2003), 282-6.

⁴¹ Gil (2003), 288-9.

concerning the accounts. Thus the merchant Joseph b. Jacob b. Yahbōy from Qayrawān (Tunisia) not only kept letters written by his deceased partner in Fustat (Egypt) recording the receipt and sale of merchandise, but ‘took the trouble of certifying all of the letters in court and preparing three copies of them’ to support his claim that his partner had owed him money at the time of his death.⁴² The fact that Maghribi traders incurred the costs of using the legal system for these purposes shows that they regarded it as a valuable mechanism for enforcing long-distance trading contracts.

It might be argued that using the public legal system to register deeds is still consistent with Greif’s argument that a private-order ‘coalition’ was used to enforce contracts. But the Geniza evidence shows that this keeping of public legal records was in fact intimately related to the use of legal mechanisms to enforce contracts. Gil’s conclusion concerning the nature of the mechanisms used by the Maghribi traders to enforce contracts is diametrically opposed to Greif’s claim that the legal system was ineffective: ‘It may easily be argued that the normalization of trade relations was enforced by the Jewish courts ... they were the entities which, according to Jewish religious law, attempted to resolve the conflicts and expose acts of unfairness’.⁴³ Maghribi traders complained in Jewish courts against other Maghribi traders who had failed to repay loans, employed Jewish courts to appoint guardians or representatives to collect debts for them from distant business associates, and called in the Jewish authorities when cheques were not honoured. But they also used the broader legal system of non-Jewish courts, resolving disputes with Muslim trading partners in front of Muslim and Jewish judges, making use of Muslim courts to have deeds drawn up recording debts owed them by other Jewish traders, and bringing large debt cases

⁴² Gil (2003), 280.

⁴³ Gil (2003), 314.

involving both local Maghribi and foreign merchants before the sultan himself.⁴⁴

Maghribi traders thus had at their disposal a wide array of formal legal enforcement mechanisms and did not refrain from using them, even if it involved asking the Muslim authorities to intervene by sending soldiers to enforce payment.⁴⁵

In summary, the Maghribi traders could, and did, use formal legal mechanisms to register and enforce the contracts that made long-distance trade possible. The claim that the Maghribis had to use informal methods to enforce contracts because the legal system was incapable of doing so is not supported by the evidence. Of course this does not mean that there was no role for informal methods. Even in modern economies with highly developed legal institutions, the costs involved in using the legal system and the possession by the parties involved of relevant information that cannot be proved in court mean that businessmen use informal methods of contract enforcement where possible, turning to the legal system only as a last resort. The Maghribi traders probably also supplemented the legal system with informal methods of contract enforcement. But to what extent did they do so? And did it take the form of a 'coalition' as hypothesized by Greif? We now address these questions.

4. Preconditions for a 'Coalition'

Greif defines the Maghribi 'coalition' as an informal contract-enforcement mechanism based on repeated interactions between members of the well-defined group of Maghribi traders. Long-distance trade, in his portrayal, was based on business associations that were formed only between Maghribis. Any opportunistic

⁴⁴ Goitein (1967), 68-9; Gil (2003), 298-9, 304-5, 308.

⁴⁵ Gil (2003), 318.

behaviour by one member of the group of Maghribi traders resulted in multilateral punishment by all other members, thereby deterring opportunism.

We have seen in the previous section that such multilateral enforcement through a ‘coalition’ cannot be portrayed as the only contract-enforcement mechanism used by the Maghribis, since formal legal institutions were available and voluntarily employed by Maghribi merchants. But can a ‘coalition’ at least be portrayed as a significant informal addition to the formal legal system of which the Maghribi traders made such concentrated use?

Contract enforcement through an informal ‘coalition’ as defined by Greif requires that a number of conditions be satisfied, as already discussed in Section 2. Group membership must be stable, information transmission must be rapid and accurate, and multilateral punishment must be swift and well targeted. Is there evidence that the Maghribi traders satisfied these requirements?

4.1. Was Group Membership Stable and Well Defined?

For the threat of multilateral punishment to have supported informal contract-enforcement, long-distance trade would have to have been based on repeated interactions among the members of a stable and well-defined group. For this reason, Greif’s description of his hypothesized ‘coalition’ includes the requirement that Maghribis formed business associations for long-distance trade only with other Maghribis. A closer look at the evidence shows clearly that this claim is false: Maghribis formed long-distance trading associations outside their own group.

Greif acknowledges that evidence of business association between Maghribi and non-Maghribi traders exists, but claims that it is rare.⁴⁶ The basis for this claim appears to be the fact that only two of the 97 traders mentioned in the letters of Naharay b. Nissim (the most important Maghribi trader in Fustat in the middle of the eleventh century) were Muslims.

Among Maghribi traders more widely, however, there are many examples of business associations with non-Maghribis. According to Goitein, on whom Greif relies heavily for much of the rest of his evidence, partnerships between Jews and Muslims were nothing exceptional.⁴⁷ To overcome the problem of travelling on the Jewish Sabbath, it was standard practice for Maghribi traders to confide overland shipments to Muslim 'business friends'.⁴⁸ The difficulty of finding travellers prepared to transport other people's shipments helps to explain, according to Goitein, 'the frequency of partnerships between Tunisian Jews and Muslims'.⁴⁹ Stillman, to whose work Greif also refers in other contexts, describes how the merchant Abu 'l-Faraj Yiisuf b. 'Awkal, conducted his flax trade in Egypt in the 1020s and 1030s with 'a whole army of Jewish and Muslim agents'.⁵⁰ So accustomed was he to doing business with Muslim agents that he employed at least one scribe who could correspond with them in Arabic script (the Maghribis typically wrote to each other in Hebrew script).⁵¹ The large Maghribi family firm of the Ibn 'Awkals was engaged in business dealings with Christian merchants in Alexandria around 1030.⁵² Yet another Maghribi trader, writing from Mazara in Sicily, refers to the trading of oil by a partnership of Jews and Muslims and describes how the writer has 'no individual share in this oil; all of it is in

⁴⁶ Greif (1989), 877, Greif (1993), 536.

⁴⁷ Goitein (1967), 72, 172-3.

⁴⁸ Goitein (1967), 281.

⁴⁹ Goitein (1967), 281.

⁵⁰ Stillman (1974), 195 (quotation); Stillman (1973), 79, 82.

⁵¹ Stillman (1973), 23.

⁵² Gil (2004), 687.

partnership between me and some Muslims and Jews, people of Sicily'.⁵³ In a further commercial relationship, a Maghribi Jewish merchant recommended his Muslim trading associates to a Jewish correspondent in another city as 'excellent and honest persons', and asked his correspondent to look after a third Muslim associate: 'I would like you to preserve my honor by doing this in a way for which I will be able to thank you.' Yet another business association between a Maghribi Jewish merchant and a Muslim gave rise to a dispute which was resolved co-operatively between the Muslim and Jewish courts when the qādī (Muslim judge) explicitly requested the involvement of the dayyān (Jewish judge).⁵⁴ The examples of business partnerships between Jews and non-Jews are particularly striking testimony to the willingness of Maghribi traders to violate cultural norms (and indeed legal rules) by trading outside their own community, since such partnerships were forbidden by Talmudic law.⁵⁵

The existence of business associations between Maghribis and non-Maghribis creates a major difficulty for Greif's portrayal of the institutional basis for long-distance trade in the eleventh-century Muslim Mediterranean. His argument is that, in the absence of an effective legal system, long-distance trading contracts were enforced by reputational considerations arising from repeated interactions among members of a well-defined group – the Maghribi traders – which was able to impose multilateral punishment on any of its members who behaved opportunistically. This argument cannot explain the existence of long-distance trade based on business associations between Maghribis and non-Maghribis. If the only mechanism available to prevent opportunistic behaviour was the threat of multilateral punishment by the Maghribi coalition, trade based on business associations between Maghribis and non-Maghribis should not have been possible, because the contracts required to sustain it

⁵³ Gil (1983a), 122.

⁵⁴ Gil (2003), 281-2.

⁵⁵ Gil (1983a), 122 n. 15.

could not have been enforced. The fact that such trade did occur shows that contract-enforcement mechanisms other than the coalition were available. These numerous business associations between Maghribis and non-Maghribis could have been based on an informal contract enforcement method involving repeated interactions between the same Maghribi and non-Maghribi traders. But they were also based on the legal system, of which Maghribi traders made extensive and voluntary use in enforcing their contracts, as we saw in Section 3. The legal system was evidently sophisticated and flexible enough for disputes involving long-distance trading partnerships between Jews and Muslims to be heard before both Jewish and Muslim courts. Such evidence casts a great deal of doubt on Greif's hypothesis that the Maghribi traders formed a stable and well-defined group that traded only with its own members, thereby fulfilling the requirements for multilateral punishment within a 'coalition'.

4.2. Speed and Accuracy of Information Transmission

Although the existence of trade between Maghribis and non-Maghribis reinforces the point that contract enforcement methods other than a putative 'coalition' were available for long-distance trade, it is still conceivable that the Maghribis might have used the coalition as an informal contract enforcement method for trade among themselves. Can this argument be sustained?

The informational requirements for a 'coalition' to have enforced contracts through multilateral punishments as hypothesized by Greif are very demanding. As noted in Section 2, for multilateral punishment of opportunism to be an effective deterrent, information about opportunistic behaviour must be transmitted quickly and accurately to all members of the group; otherwise people will discount the risk of

punishment too much to be deterred from opportunism. One must surely question whether information about opportunism could be disseminated throughout the entire group of Maghribi traders quickly enough for the threat of multilateral punishment to be effective. Although the letters written by Maghribis to each other did contain a lot of information about trade in different locations, long-distance communications in the eleventh century were slow. Since the Maghribi traders' operations covered the whole of the Muslim Mediterranean, from Spain to Constantinople, it would take many months, and possibly even years, for information about the opportunistic behaviour of a trader to be communicated to all members of the group.⁵⁶ Goitein (1967) portrays contacts between Maghribis at the western and eastern ends of the Mediterranean as distant.⁵⁷ The difficulty of communications is illustrated by the case of one young merchant active in Jerusalem who, despite being an 'eager letter writer', was unsure whether his brother and father back in southern Spain believed 'that I am still alive'.⁵⁸ In another example, two brothers in Algeria wrote a letter to a third brother in Jerusalem a full year after he had died.⁵⁹ Were the demanding information requirements of the 'coalition' mechanism really satisfied in the context of the eleventh-century Mediterranean, with communications so slow and difficult that merchants even lost touch with their own parents and siblings?

The 'coalition' mechanism also imposes stiff requirements concerning the accuracy of the information transmitted among members. Inaccurate information about opportunism could result from misunderstandings, which were inevitable given the time taken for letters to be delivered and the wide variety in the trading contexts

⁵⁶ On the slowness, difficulty, and high costs and risks of communication in the eleventh-century Mediterranean regions inhabited by the Maghribi traders, see Goitein (1967), 67, 69, 155, 273, 278-9, 284-5, 289-91, 297-300, 304, 314, 316-26, 339-46, 351.

⁵⁷ Goitein (1967), 69.

⁵⁸ Cited in Goitein (1967), 69.

⁵⁹ Goitein (1967), 279; see also *ibid.*, 274 for additional examples of Maghribi merchants who lost touch with parents, offspring, or siblings.

involved. Inaccuracy could also result from false accusations. No obvious incentives existed for a trader to make a false accusation if multilateral punishment took the form of excluding the accused from future trade with group members, as in Greif's theoretical analysis of the coalition. However, in his discussion of the way in which the Maghribis are supposed to have utilised multilateral punishment in practice, Greif says that this exclusion took place until opportunists 'compensated the injured'.⁶⁰ The possibility that a false accusation might result in the receipt of compensation creates incentives for an additional form of opportunistic behaviour – by principals – which is not taken into account in Greif's theoretical model, where opportunism is restricted to agents.

Whatever the reason for inaccuracy, there is plentiful evidence that the information conveyed among the Maghribi merchants was not universally believed to be true. Maghribi traders' letters confirm the truism that there were two sides to any dispute between business associates. In one letter, Joseph b. Labrat exposes a plot by competitors who had been planning to make trouble between him and his correspondent by claiming that he was trying to interfere with the latter's trade.⁶¹ In another, Zechariah b. Jacob al-Shāma writes that people in Tripoli have been saying 'things which caused me anguish, and things which a person like him [we do not know which person] should never have said . . . [May God] humiliate the liars and mend their ways'.⁶² Hayyim b. Emmanuel from Mahdiyya became the victim of a rumour that he had sought to engage in trade that trespassed on the territory of other merchants, which, according to Gil, 'was considered to be a grave offense at the time'. Hayyim denied the allegation emphatically, 'claiming that these are baseless

⁶⁰ Greif (1993), 530. Harbord (2006) shows that Greif's theoretical analysis can be extended to take account of the possibility that agents subject to collective punishment are able to restore relations after the payment of compensation.

⁶¹ Gil (2003), 306.

⁶² Gil (2003), 312.

rumors, intended to motivate him to leave the city'.⁶³ Perhaps the most striking example is provided by a letter dating from the 1020s or 1030s written by the agent Mûsâ b. Hisdâ to his principal Abu '1-Faraj Yiisuf b. 'Awkal, in which the agent declares in emotional terms:

I am writing in a state of good health, but with a heart laden with anxiety which descended upon me when I read your letter. I would have thought that I was held in higher esteem by you than to have you address me so. That you should listen to such unjust words from a man like Yûsuf and others from whom come base things, and that you should become upset by it! I would not have thought that you would accept the words of others against me when you know the kind of person I have been and still am. Furthermore, you know my lineage. I am not such a one from whom would come such things as to warrant your letter.⁶⁴

It is clear that the information about possible opportunism conveyed within the network of Maghribi traders was far from unambiguous. This makes it difficult to see how such information, even if it was communicated swiftly, could be used to trigger multilateral punishment – or, if it was so used, how such multilateral punishment could be beneficial for contract enforcement, considering the disputed nature of the information on which it was based.

Given these doubts about the speed and accuracy of the information transmitted among the Maghribi traders, it is not surprising that Khalluf b. Musa in Palermo, writing to Yeshu'a b. Isma'il in Alexandria, said that 'had I listened to what people say, I never would have entered into a partnership with you'.⁶⁵ Khalluf had clearly not regarded the unfavourable information circulating about Yeshu'a as being solid enough to prevent the formation of their partnership. Greif notes that Khalluf's remark suggests that he regretted ignoring the accusations of other Maghribi traders' about Yeshu'a, but Greif does not consider the broader implication of this remark, which is to cast fundamental doubt on the very existence of multilateral punishment

⁶³ Gil (2003), 313.

⁶⁴ Stillman (1974), 201.

⁶⁵ Goitein (1973), 121-2.

by the putative coalition, since Khalluf had not participated in such ostracism (if any were imposed).⁶⁶

5. Was There a Maghribi Traders' Coalition?

The definitive Geniza studies by Goitein and Gil cast serious doubt on Greif's claims that the Maghribis did not use formal legal mechanisms, that they restricted trade to their own closely-knit network, and that they conveyed information about opportunism swiftly and accurately. Nonetheless, Greif contends that there is direct evidence showing that the Maghribi traders did actually enforce their contracts using a mechanism corresponding to his hypothesized 'coalition'. We must therefore consider the strength of this evidence.

In so doing so, we must bear in mind a crucial distinction between two different informal enforcement methods. One – Greif's 'coalition' – is based on repeated interactions between members of a stable group who impose multilateral punishments on opportunists. The other – discussed in Section 2 – is based on repeated interactions between the same parties, who impose bilateral punishments on opportunists. As we have seen, there is evidence that Maghribi business associations often did involve repeated interactions between the same parties. But this mechanism is no different from what can be observed in every commercial economy, including medieval Italy, early modern Holland, eighteenth-century England, and modern developed countries. It does not provide evidence of social capital, it is not culturally distinctive, and it is much less informationally demanding than Greif's 'coalition' – punishment requires only the parties involved (and perhaps their immediate

⁶⁶ Greif (2006), 82.

associates) to know about opportunism, not that information be conveyed universally and quickly to the entire group of Maghribi traders throughout the Mediterranean, as required by the coalition mechanism.

This distinction – between bilateral and multilateral methods of informal enforcement – is important because one major type of evidence adduced by Greif in support of the hypothesized ‘coalition’ is the importance of reputation in Maghribi business relationships. But evidence of the importance of reputation cannot discriminate between simple bilateral enforcement by two partners (perhaps involving their immediate associates) and multilateral enforcement by the entire Maghribi community.

A number of the cases cited by Greif as providing evidence of the existence of a coalition in fact simply show the importance of reputation. For example, Greif supports his claim that there was a coalition by quoting the statement made by Joseph b. Awkal in Fustat (Egypt) to Samhun b. Da’ud in Qayrawān (Tunisia), saying that ‘if your handling of my business is correct, then I shall send you goods’,⁶⁷ and by quoting the report of buyers in Sfax (Tunisia) eventually agreeing to pay the originally-agreed higher price for flax because of concern about their ‘honour’.⁶⁸ But these quotations merely show that reputational considerations were important in relationships between Maghribi traders. They do not provide any indication of whether this was in the context of repeated bilateral interactions between the same traders, or multilateral relations within the wider group of all Maghribi traders, so they do not show anything about the possible existence of a coalition.

There are exactly five examples adduced by Greif which hold the possibility of furnishing direct evidence of something resembling the hypothesized ‘coalition’,

⁶⁷ Greif (1989), 869.

⁶⁸ Greif (1989), 870.

based on multilateral reputation and multilateral sanctioning, as distinct from merely demonstrating repeated interactions between particular parties and their direct associates, based on bilateral reputation and bilateral sanctioning.⁶⁹ Given that Greif's case rests entirely on these examples, we now consider each of them in some detail.

The first case is that of Abun b. Zedaka. According to Greif, a letter written in 1055 by Abun, who lived in Jerusalem, shows that he '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 Sicily cancelled their agency relations with him.'⁷⁰ Greif claims that this multilateral punishment was effective: 'only after a compromise was achieved and he [Abun] had compensated the offended merchant were commercial relations with him resumed.'⁷¹

However, Greif's interpretation of this case is at best questionable. The letter in question, written by Abun b. Zedaka in Jerusalem to Hayyim b. 'Ammār al-Madīnī in Alexandria, reads as follows:⁷²

I have read everything that you mention in your entire generous letter, from the beginning to the end, and everything that you mention about your being ashamed by my letters which you have been receiving and which no one would doubt are my writing,⁷³ and which you permitted your friends and my friends to read.⁷⁴ ... God, the King, knower of secrets and mysteries, He can find out everything and discover where the truth is, and what He has concealed until now He will conceal further from evil people.⁷⁵ Nobody has been so deeply offended as I.⁷⁶ People are seeking to make me perish at once. Things have come to such a pass that if someone said [*missing word(s)*] '5 times 5',⁷⁷

⁶⁹ These are discussed in Greif (1989), 868-71. They are referred to again in Greif (1993), 530-1; and in Greif (2006), 66-71.

⁷⁰ Greif (1989), 868-9.

⁷¹ Greif (1993), 530.

⁷² Letter from Abun b. Zedaka, Jerusalem, to Haim ben Amar, Alexandria, dated 17 March 1055; published in Hebrew in Gil (1983b), pp. 218-224 (No. 497); English translation by Dr Hillay Zmora.

⁷³ Alternatively, 'written in my own hand'.

⁷⁴ This is the literal translation of this letter provided in Gil (1983b), pp. 218-224. Prof. Gil offers the following alternative translation (personal communication to Dr Zmora, 15.01.08): 'your friends and our [common] friends'.

⁷⁵ These two sentences are not quite clear, but this is the nearly literal translation. 'Mysteries' might also be rendered as 'hidden things'. The phrase 'God, the King, knower of secrets and mysteries' may be a formula derived from some textual or oral religious tradition.

⁷⁶ Literally: 'no one's blood has been so totally ignored'.

⁷⁷ That is, 'if someone was discussing something that had nothing to do with this matter'.

he would be told that Abun⁷⁸ has stolen⁷⁹ money from the Maghribi gentleman. And if I greeted somebody, he would answer my salutation [*by saying*], ‘You owe money to the authorities’, everyone saying it according to his own character: one would say ‘100’ and the other ‘500’. And in these our days, since the Head⁸⁰ died, it has reached 1000 dinars. Both big and small say it so: ‘1000 dinars’.⁸¹ Praise to God ...⁸² This has come to such a point that if a governor, or any other commissioner, on inheritances were to be appointed, he would be approached every week on this matter. This is surely very well known in the city and can serve you [*plural*] as the strongest evidence, may God guard you, stronger than my letters which nobody doubts are in my handwriting, as 1000 dinars are more than 15 or 16. I curse the evil people who have caused all this to happen.⁸³ I am surprised that Naharay does not reply to my letters. Naharay might be forgiven for he does not want to risk censure in my response. All I ask is that Naharay gets the letters and reads them, even if he does not wish to reply to them. But most of all I am surprised by your letters because of the deception you use against me, namely that at one time you present me as a rival, brandishing my handwriting against me, and at another time you present me as a mediator. And I fulfil my obligations as the least Jew does. With regard to your shame in the handwriting, which no one doubts is mine, for it is well-known in Jerusalem both to the small and to the big: God will punish the person who wrote to you (in the manner of someone who writes to another to inform him of news) only on the basis of what he heard in the court of the Head. And I cannot write to you in detail, since you have wisely cast me in the role of a rival, for a rival does not give advice, does not make himself a guardian,⁸⁴ and does not testify, and only has to exculpate himself.

This letter is quoted in full to demonstrate precisely what evidence it contains.

Counter to Greif’s claim, it does not show that Abun was accused of embezzling the money of a Maghribi trader. Rather, Abun was accused of consuming the money of an unidentified Maghribi individual, of owing money to the authorities, and of being importuned by supervisors of inheritances. Owing money to the authorities was clearly not commercial embezzlement. Consuming the money of a Maghribi does not indicate that this is necessarily a case of commercial embezzlement, let alone a relationship between long-distance merchants; it could as easily refer to non-

⁷⁸ The Hebrew spelling here is ‘Avon’.

⁷⁹ The verb is literally ‘eaten’ or (less literally) ‘consumed’. It may be that the Arabic language in the eleventh century had ‘steal’ as one meaning of this word ‘akhal’ = ‘ate’.

⁸⁰ The ‘Head’ = the head of the Yeshiva (the Jewish high council) or of the bet-din (the law-court).

⁸¹ The phrase ‘1000 dinars’ is in Hebrew rather than Arabic.

⁸² Literally, ‘Praise to He Who Saves, etc.’.

⁸³ This is a paraphrase rather than a translation of the curse.

⁸⁴ A possible alternative translation for ‘guardian’ is ‘guarantor’.

mercantile conflict over personal debts or inheritance. The latter interpretation may be supported by Abun's reference to being approached by governors or commissioners of inheritances. But the key point is that this letter contains no details of the accusations against Abun, apart from that they involve money, the authorities, an unidentified Maghribi, and inheritances. It does not show that Abun was accused of embezzling the money of a fellow Maghribi trader.

This letter does not show that Abun was accused informally, without being charged in court. Quite the contrary. While it is clear that Abun was the subject of informal rumours, it is equally clear that the worst aspects of the accusations against him were made through the legal system, since he exclaims, 'God will punish the person who wrote to you only on the basis of what he heard in the court of the Head'. Gil (1992), the editor of these letters, interprets this text as showing Abun complaining that 'his opponents pour abuse on him in the Muslim legal institutions'.⁸⁵ Even if the accusation against Abun did relate to commercial contract enforcement, therefore, it was being made not just through informal rumours but in a formal court of law and via official governors or commissioners of inheritances. Any informal enforcement via the rumours reported in this letter was a supplement to legal institutions, not a substitute for them.

This letter also does not show that rumours about Abun were disseminated to Maghribi traders throughout the Mediterranean, as required for the hypothesized 'coalition'. Rumours were circulating in Abun's own town (Jerusalem) and in that of his correspondent Hayyim (Alexandria). Abun evidently believed the rumours to have spread to another habitual correspondent, Naharay, in Fustat (Old Cairo). This would

⁸⁵ Gil (1992), 168; see also the editorial commentary on this letter in Gil (1983b), 218-224.

suggest that information was being conveyed to immediate associates of Abun around the eastern end of the Mediterranean – a maximum distance of about 315 miles.⁸⁶

This letter does not support Greif's claim that Maghribi traders as far away as Sicily cancelled their agency relations with Abun. The only person mentioned as having cut off contact with Abun is Naharay b. Nissim in Fustat (Old Cairo). The letter mentions no other merchants, and certainly no merchants as far away as Sicily (1312 miles from Jerusalem). The only reference to Sicily is in the toponym (geographical nickname) of the addressee, whose full name is 'Hayyim b. 'Ammār al-Madīnī, named for madīnat Siqilliyya'; according to Gil (1992), 'madīnat Siqilliyya' means 'the city of Sicily, i.e., Palermo'.⁸⁷ Although this nickname may indicate that Hayyim (or his family) originally came from Sicily, at the time of this letter he was based in Alexandria (Egypt).⁸⁸ Abun describes Hayyim as a 'rival' and a 'mediator', not a business partner. There is no evidence that Hayyim cut off relations with Abun, in any case, since he was still corresponding with him. This letter thus provides no evidence of multilateral punishment and no mention of distant destinations such as Sicily.

Finally, the letter does not support the claim that multilateral punishment resulted in compromise and the delivery of compensation. Greif supports this assertion by footnoting three of the seven surviving letters of Abun reproduced by Gil (1983b).⁸⁹ One of these is Abun's 1055 letter, reproduced in full above, which does not accept that the accusations made against him were justified and makes no mention of compromise or compensation. The two other letters, dated 1059 and 1064, do not

⁸⁶ From Jerusalem to Alexandria is 315 miles; from Jerusalem to Cairo is 265 miles; from Alexandria to Cairo is 112 miles. See <http://www.convertunits.com/distance/>.

⁸⁷ Gil (1992), 269, fn 43.

⁸⁸ On how nicknames or 'bynames' often stuck to a Maghribi merchant's descendants across generations, see Goitein (1967), 156.

⁸⁹ See Greif (1993), 530, referring to Gil (1983b), vol. 3, 218-33.

even mention this conflict, let alone any act of compromise or compensation. Four further surviving letters by Abun, dated 1064-5, also make no mention of this conflict. This raises the question of the basis on which Greif makes his assertion that multilateral punishment by the Maghribi coalition led to compromise and compensation. Furthermore, the six letters written between 1059 and 1065 show that within four years, the 1055 conflict was no longer being mentioned and Abun was again doing business with Naharay, the only correspondent to have cut ties with him. Even if informal sanctions were imposed on Abun, they cannot have been severe.

The case of Abun b. Zedaka thus provides no support for Greif's hypothesized coalition. It does not show that Abun had embezzled from another Maghribi trader – the only details of the conflict relate to the authorities and to inheritance. It does not show that Abun was accused informally without being legally charged – he had been charged in a court of law. It does not show that accusations were disseminated to Maghribi merchants as far away as Sicily – the rumours were known in three locations within a 315-mile radius, Sicily is not mentioned, and only one merchant temporarily cut ties with Abun. It does not show that 'coalition' pressure forced Abun to compromise or pay compensation – neither is ever mentioned and the conflict (along with any ostracism) had disappeared within four years.

The second case cited by Greif also fails to substantiate the existence of his hypothesized 'coalition'. This is the complaint by Samhun b. Da'ud in Qayrawān (Tunisia) that Joseph b. Awkal in Fustat (Egypt) had not, as Samhun had requested, paid two of Samhun's creditors in Fustat, and had not even told them of his request to pay them.⁹⁰ Joseph appears not to have paid the creditors because he believed that Samhun had failed to send him an adequate share of the profit from their business

⁹⁰ Greif (1989), 869.

association, which led him to withhold some sums owed to Samhun. Samhun says that his creditors' 'letters vituperating me have now come here to everyone and my honor has been disgraced'.⁹¹ This case shows that a Maghribi trader could be concerned about harm to his reputation in the eyes of creditors and fellow Maghribi traders and that a bilateral punishment mechanism operated. It shows that information about Samhun's failure to pay creditors was known to his creditors in Fustat and his fellow traders in Qayrawān. But it does not show that Samhun's failure to pay was known to Maghribi traders in any other Mediterranean trading centres, and hence does not provide evidence that the Maghribi traders operated a multilateral punishment mechanism or 'coalition'.

The cases of Abun b. Zedaka and Samhun b. Da'ud suggest that Maghribi traders sometimes involved other Maghribis in their disputes, enabling them to impose stronger sanctions on opportunism than would be possible solely on the basis of a bilateral relationship. But these cases do not demonstrate the existence of a multilateral 'coalition' as proposed by Greif. The coalition model requires information to be conveyed to all members of the coalition and multilateral sanctions to be imposed by the entire group. In neither of these cases were all Maghribis made aware of the dispute; rather, information was disseminated to individuals in the locations of the conflicting parties and at most one other location. In neither case did all Maghribis impose sanctions on an opportunist – sanctions were limited to unpleasant gossip in the immediate social circles of the two parties, and to a temporary suspension of correspondence with one other direct associate of one accused party. Behaviour of this type is extremely widespread and not special to the Maghribis. Macaulay (1963), for example, notes that American businessmen in the

⁹¹ Goitein (1973), 31

mid-twentieth century were subject to informal sanctions: ‘sellers who do not satisfy their customers become the subject of discussion in the gossip exchanged by purchasing agents and salesmen, at meetings of purchasing agents’ associations and trade associations, or even at country clubs or social gatherings where members of top management meet.’⁹² Informal sanctions of this form are not evidence of a ‘coalition’.

It might be argued that it is too demanding to require evidence to support a pure form of the coalition hypothesis. But what is the alternative? To regard the coalition hypothesis as corroborated by any evidence of reputation-based contract enforcement using stronger sanctions than those based solely on bilateral relationships is surely not demanding enough. Viewed soberly, all that these two cases suggest is that the Maghribi traders were, in certain circumstances, able to use reputation-based contract-enforcement mechanisms that, by employing some degree of collective punishment, fell in between the two extremes of bilateral enforcement (repeated interactions between the same two parties) and multilateral enforcement (repeated interactions among dispersed members of a wider group). But merchants in most economies do precisely this – they mobilize gossip and reputation to put pressure on business associates.⁹³ This practice cannot be portrayed as a distinctive institutional mechanism devised by the eleventh-century Maghribis to substitute for a formal legal system.

The third case cited by Greif is also, in our view, more plausibly interpreted in a different way. Greif treats a letter from Maymun b. Khalpha in Palermo (Sicily) to Naharay b. Nissim in Fustat (Egypt) as providing evidence that Maghribi traders would participate in multilateral punishment even when they believed that the trader being punished was honest. In this letter, Maymun made clear his belief that a certain

⁹² Macaulay (1963), 64.

⁹³ For examples from other medieval and early modern commercial economies, see Section 6 below.

trader in dispute with Naharay had in fact behaved correctly, and pointed out to Naharay that ‘as you know, he is our representative and (this matter) worries all of us’.⁹⁴ Greif interprets this statement to mean that Maymun feared that an explicit accusation against the trader would harm his relations with that trader because he would then have to participate in a multilateral punishment imposed by all Maghribis.⁹⁵ But there is no evidence in Maymun’s letter to support this interpretation. A more plausible reason for Maymun’s statement that the conflict was a matter of concern to all the Maghribis derives from the role of the merchants’ ‘representative’. The ‘representative’ (wakīl) of a group of merchants in a particular location performed a number of useful functions for traders who could not attend to their business in person.⁹⁶ These included solving warehousing and payment transfer problems and organising trade.⁹⁷ A false accusation that the Maghribi traders’ representative in Palermo had cheated Naharay would obviously be of concern to all Maghribi traders, including Maymun, because it would raise unfounded questions about the probity of someone who performed a number of important economic services for Maghribi traders. The statement that an accusation against him ‘worries all of us’ does not provide evidence that an accusation against any Maghribi trader would result in all Maghribi traders punishing him even when they believed it to be unjust.

The fourth case cited by Greif is a letter from Khalluf b. Musa in Palermo (Sicily) to Yeshu’a b. Isma’il in Alexandria (Egypt).⁹⁸ Khalluf’s letter explained that he had sold Yeshu’a’s pepper at a lower price than his own pepper, ‘but, brother, I would not like to take the profit for myself. Therefore I transferred the entire sale to

⁹⁴ Gil (1983a), 106.

⁹⁵ Greif (1993), 532, Greif (2006), 72.

⁹⁶ Goitein (1967), 191-2.

⁹⁷ Gil (2003), 318.

⁹⁸ Greif (1989), 871. The full letter is in Goitein (1973), 120-125.

our partnership.’⁹⁹ Khalluf’s letter finished by asking Yeshu’a to settle accounts so that their partnership could be ended. Greif argues that, because Khalluf wished to end the partnership, he shared the profit from the pepper sale with Yeshu’a solely to maintain his reputation with other coalition members rather than to maintain his reputation with Yeshu’a. But this is pure speculation: the letter contains no evidence that this is the reason for Khalluf’s decision. Quite the contrary. Immediately after writing that he has transferred the sale of pepper to the partnership, Khalluf writes, ‘may God reward me for what I do for other people. I do not expect gratitude from men.’¹⁰⁰ This statement suggests that Khalluf did not transfer the sale to the partnership in the expectation of receiving the benefit of maintaining his reputation with Maghribi traders.

Khalluf’s decision to share the profit should be interpreted, rather, in the light of the rest of the letter, in which he levels numerous complaints against Yeshu’a. Khalluf evidently wished to end his business relationship with an unsatisfactory and difficult partner, but expected that doing so would not be straightforward. As Goitein points out, the termination of a Maghribi partnership was generally a long and complicated matter, sometimes lasting years, imposing complicated conditions, and involving many legal steps in front of the Muslim authorities followed by a formal statement before a Jewish court that the parties no longer had any claim against one another.¹⁰¹ A more plausible reading of Khalluf’s decision to share the profit is that he wanted to minimise the complications involved in ending the partnership. He may also have expected that Yeshu’a would not make the ending of the partnership simple – hence Khalluf’s remark that he did not expect gratitude from men. This interpretation is supported not only by the evidence in the rest of the letter, but also by

⁹⁹ Goitein (1973), 123.

¹⁰⁰ Goitein (1973), 123.

¹⁰¹ Goitein (1967), 179.

the fact that the partnership did not end after Khalluf wrote this letter requesting that it be wound up. Instead, it continued for several years, and was terminated only when Khalluf sued Yeshu'a in court. Khalluf was right to expect that ending his business relationship with Yeshu'a would not be a simple matter.¹⁰² This case cannot, therefore, be regarded as substantiating the view that reputation with all members of the putative coalition was important for individual Maghribi traders.

The fifth example cited by Greif in support of his hypothesized 'coalition' is a letter written in 1040 by Yahya b. Musa of al-Mahdiyya (in Tunisia) to his partner in Egypt. Greif claims that this letter corroborates his coalition hypothesis by showing that accusations against a Maghribi trader resulted in the imposition of sanctions by other Maghribis.¹⁰³ But on closer examination, this case does not show a commercial contract being enforced through informal sanctions, independently of the legal system. Yahya stated that accusations were levelled against him after the death of his father, but it was not until a letter containing a power of attorney to be used against him arrived from Egypt and became widely known that 'the people became agitated and hostile to me, and whoever owed the old man [his deceased father] anything conspired to keep it from me'.¹⁰⁴ However, the matter was soon resolved to Yahya's satisfaction: 'the receiver of that power of attorney submitted it to my master, the dayyan (judge) ... who validated it, whereupon the people approached him, but he did not disappoint (me) and stopped the affair'.¹⁰⁵ Note that it was the arrival of the power of attorney, a formal legal document, not the accusations themselves, that led to suspension of payments to Yahya. Furthermore, the court in Tunisia appears to have cleared Yahya of the accusations so that payments due were resumed. This case is

¹⁰² Goitein (1973), 120.

¹⁰³ Greif (1989), 870.

¹⁰⁴ Goitein (1973), 104. Note that this version differs slightly from that given by Greif (1989), 870.

¹⁰⁵ Goitein (1973), 104.

thus inconsistent with the coalition hypothesis: the informal punishment employed was integrally linked with the legal system, not a substitute for it.

There are further aspects of Yahya's letter which suggest that, in this case, the Maghribi traders relied primarily on legal rather than informal contract enforcement. Remarkably, Greif does not mention these aspects of the letter. Yahya was in dispute with a trader from Fustat, Abu 'l-Faraj Jacob Ibn 'Allan, the elder Abu 'l-Faraj. Yahya states in his letter that 'My lord, the Nagid, intended to address a letter to the elder Abu 'l-Faraj, but finally, he had no opportunity to write to Fustat this year at all'.¹⁰⁶ This appears to refer to a suit filed against Yahya at the court of the Tunisian Nagid, details of which are given below. Instead of writing, the Nagid seems to have sent messages about this matter to Fustat with some Egyptian merchants.¹⁰⁷ Yahya asks his partner to

meet all these people; keep an eye on what is going on and report back to me with every courier coming here. Likewise, assure them under oath, in my name, that I have nothing to do with any of their claims and do not know anything about them, except for a claim concerning a transaction made many years ago ... if they want to sue me, I shall honor (the decision of the court) and do what is imposed upon me, for my only wish is to be cleared.¹⁰⁸

The other side of this dispute is presented in an appeal made in 1041-2 by Abu 'l-Faraj Jacob Ibn 'Allan in the rabbinical court of Fustat. This concerns debts of Yahya's deceased father. The appeal stated that

I had also thought that this Yahya would reconsider the affair and return to the right way ... so that I would not be forced to make known his doings to the communities of Israel in east and west ... I had hoped that he would spare me from disclosing my situation in the meetings of the gentiles and to their judges.¹⁰⁹

This correspondence makes it absolutely clear that, rather than punishments being imposed informally solely by a coalition of Maghribis, all Jews, as well as gentiles

¹⁰⁶ Goitein (1973), 104.

¹⁰⁷ Goitein (1973), 104 fn 9.

¹⁰⁸ Goitein (1973), 104-5.

¹⁰⁹ Goitein (1973), 97.

(and their courts) were involved. The dispute with Yahya was set out in the appeal as follows:

[Yahya] sent me letters containing an account of my assets with him; however, when I filed a suit against him, demanding the payment of these assets, he sent me another account, different from the first, by which he misled my representative at the court of the Nagid of the Diaspora.¹¹⁰

The plaintiff states that he had earlier ‘proved to you the injury done to me by this Yahya with well-confirmed documents and honest witnesses and asked you to kindly forward your findings to Qayrawan for the information of the court of ... the Nagid of the Diaspora’.¹¹¹ But the focus of the appeal is on the debts of Yahya’s father: ‘This time, however, I wish to confine myself to my claims in connection with his father.’¹¹² The plaintiff asks the court to ‘examine my proofs and draw up a document stating all that is to be established in court on the basis of witnesses and documents, so that I shall obtain my rights’.¹¹³ Rather than providing evidence that the Maghribi traders used an informal coalition to enforce contracts, this is just another case in which the main contract-enforcement mechanism used by the Maghribis was the legal system. Moreover, it is one that clearly demonstrates that the legal system was regarded as capable of enforcing commercial contracts not just within the same local area but across the long distances involved in the Maghribis’ international trading activities, since Qayrawan and Fustat were some 1300 miles apart.

The claim that the Maghribis used the institution of the ‘coalition’ to enable long-distance trade cannot, therefore, be sustained on the evidence available. A form of collective punishment based on the existence of a social network, no different from that practised in many other commercial contexts before and since, does appear to have been used in some cases, but it involved the limited transmission of information

¹¹⁰ Goitein (1973), 98.

¹¹¹ Goitein (1973), 97.

¹¹² Goitein (1973), 98.

¹¹³ Goitein (1973), 97.

to a narrow range of locations and social groups, primarily those directly associated with the conflicting parties. It did not involve transmission of information or imposition of sanctions by the entire group of Maghribi traders. The available evidence does not, therefore, substantiate the existence of a Maghribi traders' coalition as hypothesized by Greif. Furthermore, the evidence refutes two key components of the 'coalition' hypothesis – the claimed inadequacy of the formal legal system and the alleged unwillingness to enter business associations outside the Maghribi community. A more thorough examination of the evidence shows that Maghribi traders made widespread and voluntary use of the formal legal system to enforce their contracts and entered into long-distance commercial associations with non-Maghribis, and indeed non-Jews. The Maghribi 'coalition' is a hypothesized construct with no empirical corroboration.

6. Did the Maghribis have collectivist cultural beliefs?

The Maghribi traders are also used to support the view that cultural beliefs determine which economic institutions arise and how successfully an economy develops. Thus Greif counterposes the 'collectivist' cultural beliefs of the Maghribi traders ('non-Muslims who adopted the values of the Muslim society') with the 'individualistic' culture of the Genoese merchants (Italians and Christians).¹¹⁴ Greif claims that despite facing the same technology and the same commercial opportunities, the two groups adopted widely differing solutions to the problem of contract enforcement, with the Maghribis choosing institutions that provided collective enforcement while the Genoese chose 'legal, political, and (second-party)

¹¹⁴ See esp. Greif (2006), 279, also chs. 3 and 9.

economic organizations for enforcement and coordination'. The essence of this comparison insofar as it relates to contract enforcement is as follows:

During the twelfth century the Genoese ceased to use the ancient custom of entering contracts by a handshake and developed an extensive legal system for registration and enforcement of contracts. Furthermore, the customary contract law that governed the relations between Genoese traders was codified as permanent courts were established. ... In contrast, despite the existence of a well-developed Jewish communal court system, the Maghribis entered contracts informally, adopted an informal code of conduct, and attempted to resolve disputes informally¹¹⁵

The explanation for this, according to Greif, is that the Maghribis held collectivist beliefs and the Genoese held individualistic ones. The informal sanctions used by the Maghribis to enforce contracts, he argues, reflect their collectivist cultural beliefs, which were not well suited to the development of the contract enforcement methods that were required for large-scale trade involving impersonal transactions. In contrast, the Genoese, supposedly holding individualistic cultural beliefs, could not use informal methods of contract enforcement and so relied from a very early stage on formal methods such as the legal system, which did permit large-scale anonymous trade and so favoured economic development. This in turn, according to Greif, led to long-term economic decline for the collectivist Maghribis and economic dominance by the Genoese and their individualistic fellow Italians. From this, Greif draws conclusions for the present-day less developed world: 'the Maghribis' institutions resemble those of contemporary developing countries, whereas the Genoese institutions resemble the developed West, suggesting that the individualistic system may have been more efficient in the long run'.¹¹⁶

Greif uses his contrast between the 'collectivist' Maghribi coalition and the 'individualist' Italian legal system to support more general conclusions about how

¹¹⁵ Greif (1994), 937.

¹¹⁶ Greif (2006), 300-01.

economists should explain institutions, arguing that the ‘motivation provided by beliefs and norms ... is the linchpin of institutions’.¹¹⁷ Others have taken up this view, with Aoki, for example, defining an institution as ‘a self-sustaining system of shared beliefs about a salient way in which the game is repeatedly played’,¹¹⁸ and adducing the Maghribi traders as an example of a ‘collectivist’ culture generating institutions that render it ‘inferior in its capacity to exploit new exchange opportunities’.¹¹⁹

But do the contract-enforcement mechanisms used by the eleventh-century Maghribi traders support these wide-ranging conclusions? They do not. As we have seen, the Maghribis made extensive use of the legal system to register the basis upon which long-distance trade ventures were undertaken, and took disputes concerning their business associations before courts of law. Of course, as we have already noted, there are costs involved in using the legal system for contract enforcement and advantages to using informal methods where possible. We have seen that as well as using the legal system, the Maghribi traders also used informal methods of contract enforcement, including practices involving some degree of collective sanction based on a social network. But Italian and other European merchants in the medieval and early modern periods also made use of collective sanctions as a contract-enforcement mechanism. According to De Roover, the medieval Italian merchant houses, indisputably the most advanced in their business methods of any in thirteenth-century Europe, favoured business relationships among family members precisely because kinship enabled parties to exert familial pressure on one another.¹²⁰ Likewise, the business ledgers of the fourteenth-century Hanseatic merchant Hildebrand Veckinchusen show him selecting friends and relatives as business associates,

¹¹⁷ Greif (2006), 39, 45.

¹¹⁸ Aoki (2001), 10.

¹¹⁹ Aoki (2001), 73.

¹²⁰ Roover (1948), 21.

precisely in order to make it more possible to apply personal pressure in case of default on contracts.¹²¹ According to Gelderblom, early modern Dutch merchants favoured business deals among friends and family because that made it possible to apply personal pressure when contracts appeared in danger of being broken, and to mobilize the strong non-economic incentives which friends and relatives had (and have) to settle disputes amicably.¹²² Merchants from Genoa and other parts of Europe did not rely exclusively on the legal system to enforce contracts, but used a combination of formal and informal methods, including ones based on social networks, just as the Maghribis did. It is simply not possible to make a sharp contrast between the contract enforcement methods used by the Maghribis and the Genoese.

Nor is it possible to sustain the view advanced by Greif, that Genoese ‘individualism’ led to the formation of family firms while Maghribi ‘collectivism’ instead led to the formation of a merchant ‘coalition’.¹²³ Greif argues that repeated interactions can only sustain informal contract-enforcement mechanisms if there is some way to overcome a trader’s incentive to behave opportunistically towards the end of his life. In Greif’s view, Italian merchants overcame this problem by establishing family firms, but the Maghribis did so by transferring ‘coalition’ membership from father to son, so that concern for the effects of punishment imposed on the next generation deterred Maghribi traders from behaving opportunistically in their old age. Greif portrays family firms as absent among the Maghribis, and interprets this as evidence that they preferred ‘collective’ rather than ‘individual’ solutions to problems of opportunism.¹²⁴

¹²¹ See the published edition of these ledgers in Lesnikov (1973); on this characteristic of Veckinchusen’s commercial behaviour, see Schweichel (2001), 350-1; Gies and Gies (1972), ch. 16.

¹²² Gelderblom (2003), 609-10, 616-17, 623.

¹²³ Greif (1994), 940-1.

¹²⁴ Greif (1989), 875-6.

But here too the premise of the argument is false. The Maghribis did form family firms. Stillman (1973) describes how the correspondence of the eleventh-century Maghribi merchant Joseph b. 'Awkal shows that 'as soon as each of his sons came of age, they became – so to speak – partners in the firm. Great family business houses of this sort are common in the Geniza records for this century.'¹²⁵ Goitein (1967) describes family partnerships between fathers and sons, uncles and nephews, and elder and younger brothers.¹²⁶ In several surviving cases, these partnerships were intended to ensure that the family business would outlast the death of one partner and survive across the generations, as in the case of Hillel b. Eli around 1090, whose will entrusted his brother (who was also his business partner) with administering the property of his minor children and expected him 'to continue the partnership until it could be formally reinstated when the orphans came of age'.¹²⁷ The Tāhertī family firm of Qayrawān 'ideally exemplify a family business', according to Goitein, and are described in a letter written by an opponent as 'one band, united by one spirit'.¹²⁸ Goitein explicitly likens the family firms of the Maghribis to those of the medieval Venetians,¹²⁹ and Stillman observes that 'perhaps the greatest importance of the Ibn 'Awkal correspondence, as far as socio-economic history is concerned, lies in the detailed picture that it gives of the organization of a medieval business house which was prominent long before the Medici in Florence, the Datini, or Pisani in Venice, the Grimaldi in Genoa, or the Arnolfini in Lucca.'¹³⁰

The apparent decline in commercial activity by the Maghribi traders in the later twelfth century can be explained without appealing to differences in culture

¹²⁵ Stillman (1973), 21.

¹²⁶ Goitein (1967), 180-3.

¹²⁷ Goitein (1967), 180-1

¹²⁸ Goitein (1967), 180-1.

¹²⁹ Goitein (1967), 181.

¹³⁰ Stillman (1973), 83.

between the Maghribis and the Genoese. For one thing, the declining frequency of merchant correspondence in the Cairo Geniza after c. 1160 arose at least partly from the fact that in the later twelfth century, the most affluent merchants moved away from Old Cairo (where the synagogue with the Geniza chamber was located) to New Cairo, the seat of the government. For another, the twelfth century saw the rise of European naval supremacy, pushing Jewish and Islamic traders out of the western Mediterranean trade. Then, at the beginning of the thirteenth century, a powerful association of Muslim merchants, the Kārīmis, secured privileges from the political authorities granting it an extensive legal monopoly and excluding outsiders from participating in many aspects of trade.¹³¹

There are no sharp differences between the Maghribis and the Genoese in contract enforcement methods and the formation of family firms, so it is difficult to claim that such differences show that the Maghribis and the Genoese had different cultural values which had implications for their economic development. The apparent decline in Maghribi trade after the later twelfth century can be explained in terms of observable changes in local record-keeping and the Mediterranean trading environment, without resorting to unobservable – and undocumented – differences in cultural beliefs and norms between Maghribis and Italians. Our analysis casts doubt on the economic importance – at least for the organisation of long-distance trade – of any systematic differences between a supposedly collectivist Jewish or Muslim culture and a supposedly individualist Italian or European one.

¹³¹ For a sketch of these developments, see Goitein (1967), 148-9.

7. Conclusion

This paper has presented a fundamental reappraisal of the Maghribi traders, which has three broader implications. First, Greif's view of the Maghribis' institutions and economic behaviour is untenable. Second, the Maghribis cannot be used to advocate exclusive, private-order social networks to enforce contracts and facilitate exchange in developing economies. Third, the Maghribis do not provide any foundation for a 'cultural' theory of development.

Not a single empirical example adduced by Greif shows that any 'coalition' actually existed. The examples he presents show the Maghribis using the formal legal system, supported by informal pressures based on reputation and repeated transactions between the same parties, as in any commercial economy. Sometimes, parties to conflict sought to supplement legal enforcement and bilateral pressure by mobilizing opinion among other Maghribis, but this was restricted to social circles in contact with the conflicting parties and did not remotely encompass the entire community of Maghribi traders throughout the Mediterranean, and is in any case no different from what is observed, for example, among twentieth-century American businessmen. There is not a single case in which a 'coalition' in the form portrayed by Greif – private-order, multilateral enforcement of commercial contracts through collective punishment by the entire Maghribi community – can be observed in operation. We must therefore reject the hypothesis that there existed such an institution.

The Maghribis provide no support for the idea that the 'social capital' of exclusive, private-order networks offers institutional solutions for contract enforcement in developing economies. Greif claims that the Maghribis developed the informal, private-order institution of the 'coalition' because formal, public-order

institutions were inadequate, but the evidence shows that the Maghribis made frequent and voluntary use of formal legal mechanisms. Greif claims that the Maghribi traders constituted a closed and exclusive social network, but the evidence shows that they entered into business associations with outsiders (including Muslims) as a matter of course and enforced their contracts in Muslim as well as Jewish law-courts. Greif claims that there was a 'coalition', which would have required information to be transmitted swiftly and accurately among all members of the Maghribi community across the medieval Mediterranean, but the evidence shows that communications were slow, rumours about commercial conflicts were diffused primarily to immediate associates of the conflicting parties, and there was serious dispute about the accuracy of such rumours, rendering them an unsafe basis for any collective punishment.

Nor do the Maghribis provide any support for the 'cultural' theories of economic development and institutional change for which they have been mobilized. Greif's notion that the Maghribis espoused 'collectivist' beliefs in contrast to the 'individualistic' beliefs of the Italians is based on two assertions – that the Maghribis chose collective punishment through a closed coalition in preference to the Italians' choice of individualized legal penalties; and that the Maghribis chose to transmit coalition membership to sons in preference to forming 'individualistic' family firms like the Italians. Both assertions are false. Maghribis made widespread and voluntary use of legal mechanisms, and they established family firms that are explicitly described by Geniza scholars as resembling (but pre-dating) the great merchant houses of medieval Italy. There is no evidence that the Maghribis were inherently more 'collectivist' than any other medieval trading culture. They cannot be used as the foundation for a cultural theory of development.

List of References

Aoki, Masahiko. *Toward a Comparative Institutional Analysis*. Cambridge, MA: MIT Press, 2001.

Clay, Karen. "Trade without Law: Private-Order Institutions in Mexican California." *Journal of law, economics and organization*, 1997, 13(1), pp. 202-31.

Costa, D. L. and Kahn, M. E. "Surviving Andersonville: The Benefits of Social Networks in Pow Camps." *American economic review*, 2007, 97, pp. 1467-87.

De Roover, Raymond. *The Medici Bank: Its Organization, Management, Operations and Decline*. New York: New York University Press, 1948.

Dixit, Avinash K. *Lawlessness and Economics: Alternative Modes of Governance*. Princeton, NJ: Princeton University Press, 2004.

Durlauf, Steven N. and Fafchamps, Marcel. "Social Capital," P. Aghion and S. N. Durlauf, *Handbook of Economic Growth*. Amsterdam / London: Elsevier, 2005, 1639-99.

Ellison, G. "Cooperation in the Prisoner's Dilemma with Anonymous Random Matching." *Review of economic studies*, 1994, 61, pp. 567-88.

Faille, Christopher. "Trading on Reputation." *Reason*, January 2007.
<http://www.reason.com/news/show/117079.html>.

Gelderblom, Oscar. "The Governance of Early Modern Trade: The Case of Hans Thijs (1556-1611)." *Enterprise and society*, 2003, 4(4), pp. 606-39.

Gies, J. and Gies, F. *Merchants and Moneymen: The Commercial Revolution, 1000-1500*. New York: Crowell, 1972.

Gil, M. "The Jews in Sicily under Muslim Rule, in the Light of the Geniza Documents." *Italia Judaica. Atti del I Convegno internazionale Bari 18-22 maggio*

1981, 1983, 2, pp. 87-134.

Gil, Moshe. *Palestine During the First Muslim Period (634-1099) [in Hebrew and Arabic]*. Tel Aviv: Ministry of Defence Press and Tel Aviv University Press, 1983.

_____. *A History of Palestine 634-1099*. Cambridge: Cambridge University Press, 1992.

_____. *In the Kingdom of Ishmael [in Hebrew]*. Tel Aviv: Tel Aviv University, 1997.

Gil, M. "The Jewish Merchants in the Light of Eleventh-Century Geniza Documents." *Journal of the economic and social history of the Orient*, 2003, 46(3), pp. 273-319.

Gil, Moshe. *Jews in Islamic Countries in the Middle Ages*. Leiden: Brill, 2004.

Goitein, S. D. "The Cairo Geniza as a Source for the History of Muslim Civilisation." *Studia Islamica*, 1955, 3, pp. 75-91.

_____. *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza, Vol. 1: Economic Foundations*. Berkeley / Los Angeles: University of California Press, 1967.

_____. "Mediterranean Trade in the Eleventh Century: Some Facts and Problems," M. A. Cook, *Studies in the Economic History of the Middle East*. Oxford: Oxford University Press, 1970, 51-62.

_____. *Letters of Medieval Jewish Traders*. Princeton, NJ: Princeton University Press, 1973.

Greif, Avner. "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders." *Journal of economic history*, 1989, 49(4), pp. 857-82.

_____. “Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders’ Coalition.” *American economic review*, 1993, 83(3), pp. 525-48.

_____. “Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies.” *Journal of political economy*, 1994, 102(5), pp. 912-50.

_____. *Institutions and the Path to the Modern Economy: Lessons from Medieval Trade*. Cambridge: Cambridge University Press, 2006.

Harbord, David. “Enforcing Cooperation among Medieval Merchants: The Maghribi Traders Revisited.” *Munich personal Repec archive working paper*, 2006.

Helpman, Elhanan. *The Mystery of Economic Growth*. Cambridge, MA: Harvard University Press, 2004.

Kandori, M. “Social Norms and Community Enforcement.” *Review of economic studies*, 1992, 59(1), pp. 63-80.

Kranton, R. E. and Minehart, D. F. “A Theory of Buyer-Seller Networks.” *American economic review*, 2001, 91, pp. 485-508.

La Ferrara, E. “Kin Groups and Reciprocity: A Model of Credit Transactions in Ghana.” *American economic review*, 2001, 93, pp. 1730-51.

Lesnikov, Michail P. *Die Handelsbücher Des Hansischen Kaufmannes Veckinchusen*. Berlin: Akademie-Verlag, 1973.

Macaulay, S. “Non-Contractual Relations in Business: A Preliminary Study.” *American sociological review*, 1963, 28(1), pp. 55-67.

MacLeod, W. B. “Reputations, Relationships and Contract Enforcement.” *Journal of economic literature*, 2007, 45, pp. 595-628.

McMillan, John and Woodruff, Christopher. “Private Order under Dysfunctional Public Order.” *Michigan law review*, 2000, 98(8), pp. 2421-58.

Miguel, Edward; Gertler, Paul and Levine, David. “Does Social Capital Promote Industrialization? Evidence from a Rapid Industrializer.” *Review of economics and statistics*, 2005, 87(4), pp. 754-62.

North, Douglass C. *Understanding the Process of Economic Change*. Princeton: Princeton University Press, 2005.

O’Driscoll, Gerald P. and Hoskins, Lee. “The Case for Market-Based Regulation.” *The Cato journal*, 2006, 26(3), pp. 469-87.

Osborne, M. J. and Rubinstein, A. *A Course in Game Theory*. Cambridge, MA / London: MIT Press, 1994.

Schweichel, Roswitha. “Kaufmännische Kontakte Und Warenaustausch Zwischen Köln Und Brügge. Die Handelsgesellschaft Von Hildebrand Veckinchusen, Werner Scherer Und Reinhard Noiltgin,” D. E. H. d. Boer, G. Gleba and R. Holbach, “... In Guete Freuntlichen Nachbarlichen Verwandnus und Hantierung ...” : *Wanderung von Personen, Verbreitung von Ideen, Austausch von Waren in den Niederländischen und Deutschen Küstenregionen vom 13. - 18. Jahrhundert*. Oldenburg: Bibliotheks- und Informationssystem der Universität, 2001, 341-61.

Stillman, Norman A. “The Eleventh Century Merchant House of Ibn ‘Awkal (a Geniza Study).” *Journal of the economic and social history of the Orient*, 1973, 16(1), pp. 15-88.

_____. “A Case of Labor Problems in Medieval Egypt.” *International journal of Middle East studies*, 1974, 5(2), pp. 194-201.

World Bank. *World Development Report 2002: Building Institutions for Markets*. Oxford: Oxford University Press, 2002.

CESifo Working Paper Series

for full list see www.cesifo-group.org/wp

(address: Poschingerstr. 5, 81679 Munich, Germany, office@cesifo.de)

- 2188 Sándor Csengődi and Dieter M. Urban, Foreign Takeovers and Wage Dispersion in Hungary, January 2008
- 2189 Joerg Baten and Andreas Böhm, Trends of Children's Height and Parental Unemployment: A Large-Scale Anthropometric Study on Eastern Germany, 1994 – 2006, January 2008
- 2190 Chris van Klaveren, Bernard van Praag and Henriette Maassen van den Brink, A Public Good Version of the Collective Household Model: An Empirical Approach with an Application to British Household Data, January 2008
- 2191 Harry Garretsen and Jolanda Peeters, FDI and the Relevance of Spatial Linkages: Do third Country Effects Matter for Dutch FDI?, January 2008
- 2192 Jan Bouckaert, Hans Degryse and Theon van Dijk, Price Discrimination Bans on Dominant Firms, January 2008
- 2193 M. Hashem Pesaran, L. Vanessa Smith and Takashi Yamagata, Panel Unit Root Tests in the Presence of a Multifactor Error Structure, January 2008
- 2194 Tomer Blumkin, Bradley J. Ruffle and Yosef Ganun, Are Income and Consumption Taxes ever really Equivalent? Evidence from a Real-Effort Experiment with Real Goods, January 2008
- 2195 Mika Widgrén, The Impact of Council's Internal Decision-Making Rules on the Future EU, January 2008
- 2196 Antonis Adam, Margarita Katsimi and Thomas Moutos, Inequality and the Import Demand Function, January 2008
- 2197 Helmut Seitz, Democratic Participation and the Size of Regions: An Empirical Study Using Data on German Counties, January 2008
- 2198 Theresa Fahrenberger and Hans Gersbach, Minority Voting and Long-term Decisions, January 2008
- 2199 Chiara Dalle Nogare and Roberto Ricciuti, Term Limits: Do they really Affect Fiscal Policy Choices?, January 2008
- 2200 Andreas Bühn and Friedrich Schneider, MIMIC Models, Cointegration and Error Correction: An Application to the French Shadow Economy, January 2008
- 2201 Seppo Kari, Hanna Karikallio and Jukka Pirttilä, Anticipating Tax Change: Evidence from the Finnish Corporate Income Tax Reform of 2005, January 2008

- 2202 Walter Krämer and André Güttler, On Comparing the Accuracy of Default Predictions in the Rating Industry, January 2008
- 2203 Syed M. Ahsan and Panagiotis Tsigaris, The Efficiency Loss of Capital Income Taxation under Imperfect Loss Offset Provisions, January 2008
- 2204 P. Mohnen, F. C. Palm, S. Schim van der Loeff and A. Tiwari, Financial Constraints and other Obstacles: Are they a Threat to Innovation Activity?, January 2008
- 2205 Sascha O. Becker and Mathias Hoffmann, Equity Fund Ownership and the Cross-Regional Diversification of Household Risk, January 2008
- 2206 Pedro R. D. Bom and Jenny E. Ligthart, How Productive is Public Capital? A Meta-Analysis, January 2008
- 2207 Martin Werding, Ageing and Productivity Growth: Are there Macro-level Cohort Effects of Human Capital?, January 2008
- 2208 Frederick van der Ploeg and Steven Poelhekke, Globalization and the Rise of Mega-Cities in the Developing World, February 2008
- 2209 Sara Biancini, Regulating National Firms in a Common Market, February 2008
- 2210 Jin Cao and Gerhard Illing, Liquidity Shortages and Monetary Policy, February 2008
- 2211 Mathias Kifmann, The Design of Pension Pay Out Options when the Health Status during Retirement is Uncertain, February 2008
- 2212 Laszlo Goerke, Tax Overpayments, Tax Evasion, and Book-Tax Differences, February 2008
- 2213 Jun-ichi Itaya and Heinrich W. Ursprung, Price and Death, February 2008
- 2214 Valentina Bosetti, Carlo Carraro and Emanuele Massetti, Banking Permits: Economic Efficiency and Distributional Effects, February 2008
- 2215 Assar Lindbeck, Mårten Palme and Mats Persson, Social Interaction and Sickness Absence, February 2008
- 2216 Gary E. Bolton and Axel Ockenfels, The Limits of Trust in Economic Transactions - Investigations of Perfect Reputation Systems, February 2008
- 2217 Hartmut Egger and Peter Egger, The Trade and Welfare Effects of Mergers in Space, February 2008
- 2218 Dorothee Crayen and Joerg Baten, Global Trends in Numeracy 1820-1949 and its Implications for Long-Run Growth, February 2008
- 2219 Stephane Dees, M. Hashem Pesaran, L. Vanessa Smith and Ron P. Smith, Identification of New Keynesian Phillips Curves from a Global Perspective, February 2008

- 2220 Jerome L. Stein, A Tale of Two Debt Crises: A Stochastic Optimal Control Analysis, February 2008
- 2221 Michael Melvin, Lukas Menkhoff and Maik Schmeling, Automating Exchange Rate Target Zones: Intervention via an Electronic Limit Order Book, February 2008
- 2222 Raymond Riezman and Ping Wang, Preference Bias and Outsourcing to Market: A Steady-State Analysis, February 2008
- 2223 Lars-Erik Borge and Jørn Rattsø, Young and Old Competing for Public Welfare Services, February 2008
- 2224 Jose Apesteguia, Steffen Huck, Jörg Oechssler and Simon Weidenholzer, Imitation and the Evolution of Walrasian Behavior: Theoretically Fragile but Behaviorally Robust, February 2008
- 2225 Walter Krämer, Long Memory with Markov-Switching GARCH, February 2008
- 2226 António Afonso and Christophe Rault, What do we really Know about Fiscal Sustainability in the EU? A Panel Data Diagnostic, February 2008
- 2227 Sergey M. Kadochnikov and Igor M. Drapkin, Market Structure, Technological Gap and Vertical Linkage Effects from Foreign Direct Investment, February 2008
- 2228 Guglielmo Maria Caporale, Davide Ciferri and Alessandro Girardi, Fiscal Shocks and Real Exchange Rate Dynamics: Some Evidence for Latin America, February 2008
- 2229 Scott Alan Carson, Geography and Insolation in 19th Century US African-American and White Statures, February 2008
- 2230 Wolfgang Buchholz and Jan Schumacher, Discounting and Welfare Analysis Over Time: Choosing the η , February 2008
- 2231 M. Hashem Pesaran, Christoph Schleicher and Paolo Zaffaroni, Model Averaging in Risk Management with an Application to Futures Markets, February 2008
- 2232 Wilhelm Kohler, Offshoring: Why Do Stories Differ?, February 2008
- 2233 Stefan Bach, Giacomo Corneo and Viktor Steiner, Effective Taxation of Top Incomes in Germany, 1992-2002, February 2008
- 2234 Robert S. Chirinko, σ : The Long And Short Of It, February 2008
- 2235 Volker Grossmann and Holger Strulik, Should Continued Family Firms Face Lower Taxes than other Estates?, February 2008
- 2236 Guido Tabellini, The Scope of Cooperation: Values and Incentives, February 2008
- 2237 Heinrich W. Ursprung and Christian Wiermann, Reputation, Price, and Death: An Empirical Analysis of Art Price Formation, March 2008

- 2238 Hans Fehr and Christian Habermann, Private Retirement Savings in Germany: The Structure of Tax Incentives and Annuitization, March 2008
- 2239 Joseph Francois and Ian Wooton, Market Structure and Market Access, March 2008
- 2240 Hiroyuki Kasahara and Beverly Lapham, Productivity and the Decision to Import and Export: Theory and Evidence, March 2008
- 2241 Gary E. Bolton and Axel Ockenfels, Does Laboratory Trading Mirror Behavior in Real World Markets? Fair Bargaining and Competitive Bidding on EBay, March 2008
- 2242 Atsushi Oshima, B. Ravikumar and Raymond Riezman, Entrepreneurship, Organization Capital and the Evolution of the Firm, March 2008
- 2243 Walter Krämer and Sebastian Schich, Large-Scale Disasters and the Insurance Industry, March 2008
- 2244 Leif Danziger, Adjustment Costs, Inventories and Output, March 2008
- 2245 Anne van Aaken, Lars P. Feld and Stefan Voigt, Power over Prosecutors Corrupts Politicians: Cross Country Evidence Using a New Indicator, March 2008
- 2246 Hans-Christian Heinemeyer, Max-Stephan Schulze and Nikolaus Wolf, Endogenous Borders? The Effects of New Borders on Trade in Central Europe 1885-1933, March 2008
- 2247 Johannes Becker and Clemens Fuest, Tax Competition – Greenfield Investment versus Mergers and Acquisitions, March 2008
- 2248 Giorgio Belletini and Hubert Kempf, Why not in your Backyard? On the Location and Size of a Public Facility, March 2008
- 2249 Jose Luis Evia, Roberto Laserna and Stergios Skaperdas, Socio-Political Conflict and Economic Performance in Bolivia, March 2008
- 2250 Bas Jacobs and A. Lans Bovenberg, Optimal Taxation of Human Capital and the Earnings Function, March 2008
- 2251 Jan-Egbert Sturm and Timo Wollmershäuser, The Stress of Having a Single Monetary Policy in Europe, March 2008
- 2252 Guido Schwerdt, Labor Turnover before Plant Closure: ‘Leaving the Sinking Ship’ vs. ‘Captain Throwing Ballast Overboard’, March 2008
- 2253 Keith E. Maskus and Shuichiro Nishioka, Development-Related Biases in Factor Productivities and the HOV Model of Trade, March 2008
- 2254 Jeremy Edwards and Sheilagh Ogilvie, Contract Enforcement, Institutions and Social Capital: the Maghribi Traders Reappraised, March 2008