Impersonal Exchange without Impartial Law: The Community Responsibility System

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ABSTRACT

Impartial legal enforcement provided by the state is considered necessary for impersonal exchange, implying that the scope of enforcement determines the extent of the market and hence the division of labor and related efficiency gains. Yet, the development of effective impartial legal systems provided by the state to govern exchange relationships is a rather recent phenomenon. What were, if any, the institutions that enabled impersonal exchange prior to that development? This paper addresses this question by examining the European experience. It utilizes a game theoretic framework and historical analysis to examine the Community Responsibility System ("CRS") that enabled exchange characterized by separation between the quid and the quo over time and space that was impersonal, up to one's community affiliation. The CRS built on self-governed communities, intra-community (partial) enforcement institutions, and non-contractual joint communal liability in inter-community disputes that induced communities to care about their collective reputations.

The analysis touches upon issues central to institutions: the optimal size of the legal responsibility unit as a function of different units' ability to

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* This article is a concise presentation of arguments made at greater length in Avner Greif, *Institutions: Theory and History* (Cambridge forthcoming 2005). Readers interested in a more complete discussion and in additional historical examples should find that version helpful.

** Department of Economics, Stanford University. National Science Foundation Grants 9009598-01 and 9223974 supported this research. Masahiko Aoki, Gregory Besharov, Brent Daniel Goldfarb, Avinash Dixit, Albrecht Ritschl, Urs Schweizer, and participants in workshops at the University of Chicago, Oxford University, Cambridge University, the Hebrew University, Stanford University, MIT, University of Michigan, Tel Aviv University, Yale University, CIAR, and a Max Planck Conference provided useful comments. Research assistance by Yadira González de Lara, Courtney Dahlke, and Nese Yelidz was indispensable. Aspects of this research were published in Avner Greif, *Impersonal Exchange and the Origin of Markets: From the Community Responsibility System to Individual Legal Responsibility in Pre-Modern Europe*, in Masahiko Aoki and Yujiro Hayami, eds, *Communities and Markets in Economic Development* 3 (Oxford 2001); Avner Greif, *Institutions and Impersonal Exchange: From Communal to Individual Responsibility*, 158 J Inst & Theoretical Econ 168 (Mar 2002).

identify, monitor, and punish wrongdoers; the endogenous elicitation of impartial justice from partial courts; the role of self-governed organizations that fall between the ways in which we model the state and communities; the complementarities between reputational mechanisms and those relying on coercive power; the importance of the distinction between personal and communal identities; how institutions endogenously determine if agents condition entering an exchange on the revelation of information regarding personal and communal identity or past actions or both; and the importance of overlapping generations' organizations, such as communities, in facilitating inter-organizational impersonal exchange based on reputation despite each individual's finite life span.

(JEL Classification: N0, N2, C7.)

I. INTRODUCTION

Impersonal exchange is central to economic growth; however, we know surprisingly little about the historical development of the institutions that supported it. In considering the institutional foundations of exchange, the economic literature has emphasized reputation-based personal exchange on the one hand and impersonal exchange based on an impartial legal system on the other. Reputation-based institutions support personal exchange by enabling repeatedly interacting economic agents to commit ex ante to adhere to contractual obligations ex post based on the (correct) expectations that misconduct will lead to a loss of future gains from exchange. Law-based institutions support impersonal exchange based on a third-party impartial enforcer with coercive power, ex post verifiability of actions, and legal sanctions.\(^2\)

Impartial and effective legal systems, however, are a relatively recent development, and, more importantly, impersonal exchange seems to have historically preceded their development. During the Late Medieval Commercial Revolution, long-distance trade substantially expanded, and merchants from different corners of Europe extensively entered into what seems to have been impersonal exchange characterized by a separation between the *quid* and the *quo*

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over time and space: credit, contracts for future delivery, negotiable securities, and maritime insurance are a few examples.³

What institutions, if any, facilitated impersonal exchange in the absence of impartial, third-party contract enforcement provided by the state and its legal system? This paper addresses the question by examining the nature and endogenous dynamics of institutions that supported impersonal exchange characterized by a separation in time and space between the quid and the quo in pre-modern Europe from the late medieval period.

Addressing this question relates to a central issue in understanding the process of development and the role of contract enforcement institutions in this process. The historical process of market development is seen as a process of institutional evolution that supplemented reputation mechanisms with impartial legal enforcement. Where reputation-based institutions enable only personal exchange, impartial legal enforcement enables exchange that is impersonal in the sense that one's decision to exchange is not conditional on knowing a current partner's past actions, the expectations of future trading, or the ability to transmit information regarding past conduct to others.⁴ Reputation-based exchange is characterized by a low fixed cost but a high marginal cost of exchanging with unfamiliar individuals.⁵ Law-based exchange, however, is characterized by the high fixed cost required to set up an effective legal system but the low marginal cost of establishing new exchange relationships. Establishing an exchange based on the law amounts to providing a public good, therefore relying on overcoming the associated collective action problem.⁶ Furthermore, establishing an effective legal system requires institutions that will enable a state to commit to not abusing property rights.⁷

But historically, if exchange began based on personal relationships within relatively small groups, the emergence of the impartial legal system that facilitates impersonal exchange in contemporary developed economies requires

³ See, for example, Henri Pirenne, A History of Europe from the Invasions to the XVI Century (University Books 1955); Robert S. Lopez, The Commercial Revolution of the Middle Ages, 950–1350 (Cambridge 1976).
⁵ Greif, 102 J Pol Econ at 912 (cited in note 2); Li, The Benefits and Costs of Relation-Based Governance (cited in note 4).
⁶ Li, The Benefits and Costs of Relation-Based Governance (cited in note 4); Dixit, Trade Expansion and Contract Enforcement ch 4 (cited in note 2).
an explanation. Why was a legal system supporting impersonal exchange established despite the high fixed cost if the volume of impersonal exchange was initially low? We know that theoretical contracting efficiency alone does not lead to a transition from one system of contract enforcement to another. More broadly, what institutions, if any, facilitated impersonal exchange in the absence of impartial, third-party contract enforcement provided by the state and its legal system?

The historical and theoretical analysis in this paper suggests the importance of institutions that support impersonal exchange but are based neither on expectations that misconduct will lead to a loss of reputation nor on third-party impartial legal enforcement. Rather, these institutions are based on social units that blur the boundaries between the way we model communities of economic agents and the state. On the one hand they have coercive ability vis-à-vis their members, but, on the other hand, their legal system is directly controlled by the economic agents and is partial in the sense that it directly reflects their economic objectives. This legal system neither serves the principle of justice nor is it motivated to do so by a third party, such as the state.

These institutions are based on involuntary collective liability of members of the social unit in their interactions with others making the concern with the loss of the social unit’s reputation central to their operation. This leads to the endogenous provision of impartial justice meted out by the court partial to the social unit because the court is motivated to punish a member who cheated a non-member, fearing the loss of collective reputation. Hence, reputational considerations and coercive power jointly underpin the operation of the institution. This collective responsibility also enables economic agents to commit to honesty in impersonal exchange despite their finite life spans because the social unit becomes an infinitely lived player that internalizes the cost of a member’s cheating.

Involuntary collective responsibility also alters the informational underpinning of exchange in the absence of impartial, third-party legal enforcement. Instead of requiring information regarding one’s past conduct, it requires knowledge of one’s social and personal identities. Works on reputation mechanisms have concentrated on the importance of public information regarding past actions in fostering institutions based on multilateral reputation. If information regarding past actions is public, then a multilateral reputation mechanism can motivate honesty. This mechanism rests on the credible threat

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8 Greif, 102 J Pol Econ at 912 (cited in note 2); Kranton, 86 Am Econ Rev at 830 (cited in note 2).

that all future partners to the exchange would condition exchange on one another’s past conduct. Those who cheated in the past forgo the gains from future exchange. Theoretically, institutions based on collective responsibility enable the economic agents to commit without the need to condition future choices on their past conduct. Mechanisms enabling individuals to credibly communicate their social and personal identities are substituted for mechanisms for contract enforcement based on public information regarding past actions. Collective responsibility can thus foster impersonal exchange when past actions are not public information and personal identities cannot be credibly communicated across communal boundaries in the absence of collective responsibility.

In the particular context of pre-modern Europe, the social units underpinning the institution that enabled impersonal exchange were self-governed communities: the communes, which fall into the grey area between communities and states as we commonly conceptualize them. They were similar to communities in that they were characterized by intra-community personal familiarity, yet, like a state, they had a (geographically) local monopoly over the legal use of coercive power. Their legal systems, however, were partial and reflected the interests of their members rather than the principles of impartial justice or incentives provided by a third party. These communities provided the basis for the Community Responsibility System (“CRS”) that enabled large-scale impersonal exchange characterized by a separation between the quid and the quo over time and space throughout Europe from probably as early as the tenth century.

The organizational structure of the CRS was such that merchants could learn the communal and personal identities of their partners in an exchange, rather than their past conduct. Community courts held every member of another community jointly liable for default by a member of his community in inter-community exchange. The goods of every member of a cheater’s community were impounded if that community refused compensation. This communal liability—which was neither contractual nor voluntary for an individual merchant—implied a concern with communal reputation. A community could

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11 “Impound” (namely, to take legal or formal possession of goods to be held in custody of the law), “confiscation” (namely, seizure under public authority), and distraint seem appropriate here.
avoid compensation for a default in inter-community exchange, but at the cost of losing the gains from any future trade. Hence, although a community’s courts were partial and represented the interests of their finitely-lived members, they were motivated to utilize their local monopolies over coercive power to provide impartial justice, punish a community member who defaulted, and compensate for the damage. Communities were thus ongoing, infinitely-lived organizations that internalized the cost of a default by each member on others. Finally, anticipating compensation, merchants were motivated to learn the communal and personal identities of their partners to an exchange and could credibly commit to complain in case of default despite the cost involved.

The CRS was not without costs: it generated strategic uncertainty due to asymmetric information and limited monitoring ability, inter-communal disputes occurred, entailing confiscation of merchandise and inability to trade. Hence, communities devised means to reduce these costs and institute a better system. During the thirteenth century, pressure to alter the CRS system was particularly strong. Ironically, it was the same processes that it fostered—those through which trade expanded and merchants’ communities grew in size, number, and economic and social heterogeneity—that reduced its economic efficiency and intra-community political viability.

Yet the ability to replace the CRS with an alternative institution depended on the political environment. In some countries, such as England, the political system was conducive to a transition to legal contract enforcement based on individual legal responsibility and a legal system in which incentives to the adjudicators were provided by the polity. Even there, however, this transition was not a single event but a gradual process, as it required establishing new legal mechanisms, creating administrative capacity, providing the appropriate incentives to those administering the system and adjudicating disputes, and creating shared beliefs among merchants regarding the effectiveness of the new system. In other countries, such as Germany and Italy, where the polity was too fragmented to accomplish such a task, a centralized alternative to the CRS did not emerge in the centuries immediately following the thirteenth century. The transition to the system that prevails today, in which individual liability is the rule and collective responsibility is consensual and contractual, seems not to have occurred, at some places, until as late as the seventeenth century.

This paper is most directly related to the growing literature examining the historical development of institutions that supported pre-modern European market expansion. The literature focuses on institutions that supported long-

12 It also relates to the literature on collective reputation. See, for example, Jean Tirole, A Theory of Collective Reputations (with Applications to the Persistence of Corruption and to Firm Quality), 63 Rev Econ Studies 1 (1996). See also Maitreesh Ghatak and Timothy W. Guinnane, The Economics of Lending with Joint Liability: Theory and Practice, 60 J Development Econ 195 (1999) (voluntary collective
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distance trade by facilitating agency relationships, fostering capital mobilization, and securing property rights abroad. Impersonal exchange characterized by separation in time between the quid and the quo is the focus of Milgrom, North, and Weingast. This paper highlights the importance of expanding this line of inquiry, and of examining contract enforcement institutions more generally, to also consider the endogenous creation and transmission of personal identity, the endogenous incentive for the legal system to be partial, the use of coercive power in enforcing contracts, and the role of ongoing organizations in fostering inter-organizational, reputation-based exchange although each economic agent is finitely-lived.

The prevalence of historical documents reflecting aspects of the CRS has been noticed by an earlier generation of scholars. By and large, however, these scholars viewed it as an archaic and barbaric system—a relic of the past that hindered, rather than advanced, trade. The analysis presented here, however, suggests that it served a useful purpose.

The paper proceeds as follows. Section II discusses the issue of exchange characterized by separation between the quid and the quo during the late medieval

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13 Greif, 49 J Econ Hist at 857 (cited in note 10); Greif, 83 Am Econ Rev at 525 (cited in note 10); Greif, 102 J Pol Econ at 912 (cited in note 2).


15 Avner Greif, Paul Milgrom, and Barry R. Weingast, Coordination, Commitment and Enforcement: The Case of the Merchant Guild, 102 J Pol Econ 745 (1994).

16 Millgram, North, and Weingast, 2 Econ & Pol at 1 (cited in note 10).


18 Bull and Kreps, among others, noted that interactions among finitely-lived agents within an ongoing organization enable reputation mechanisms to support exchange among them. Clive Bull, The Existence of Self-Enforcing Implicit Contracts, 102 Q J Econ 147 (1987); David M. Kreps, Corporate Culture and Economic Theory, in James E. Alt and Kenneth A. Shepsle, eds, Perspectives on Positive Political Economy 90 (Cambridge 1990). The credible threat that future members would not exchange with current ones if they cheat the previous generation supports cooperation. Steven Tadelis noted that separation between one’s identity and an economic entity can enable a business owner to commit to honesty despite his finite life span because he can sell the business in his old age. What’s In a Name? Reputation as a Tradeable Asset, 89 Am Econ Rev 548 (1999).

19 See, for example, Pietro Santini, Appunti Sulla Vendetta Privata, in 18 Archivio Storico Italiano 162 (GP Vieuzeux 1886); Gino Arias, I Trattati Commerciali della Repubblica Fiorentina (Successori le Monnier 1901); Frederic William Maitland and Mary Bateson, eds, The Charters of the Borough of Cambridge (Cambridge 1901); J.H. le Patourel, The Medieval Administration of the Channel Islands, 1199–1399 (Oxford 1937); Ellen Wedemeyer Moore, The Fairs of Medieval England: An Introductory Study (Pontifical Institute of Mediaeval Studies 1985).
period. Section III discusses the issue of impersonal exchange during the same period. Section IV presents an intuitive discussion of a theory of the community responsibility system. Section V utilizes the insights of the theoretical analysis, as well as information from contracts, tribunal records, charters, and royal and community regulations, to evaluate the extent to which a community responsibility system indeed functioned in Europe during that time. Section VI briefly discusses the decline of the CRS.

II. EXCHANGE CHARACTERIZED BY SEPARATION BETWEEN THE QUID AND THE QUO DURING THE COMMERCIAL REVOLUTION

The historical records indicate that exchange characterized by a separation between the *quid* and the *quo* over time and space was common in western Europe during the late medieval Commercial Revolution, perhaps for the first time since the fall of the Roman Empire. In towns, fairs, and marketplaces, merchants provided and received credit, bought and sold through contracts for future delivery, and insured the cargo they shipped overseas. While we cannot qualitatively measure the efficiency contribution of such exchange relations, they were arguably great.

The historical records also reflect the identity of the individuals who entered into exchange characterized by a separation between the *quid* and the *quo* over time and space during the Commercial Revolution. Exchanges were often conducted among people who lived near each other. But exchange characterized by a separation between the *quid* and the *quo* was often established among merchants who did not live near each other. For example, around the middle of the century traders from Asti regularly sold northern textiles imported from the Champagne Fairs on credit to Genoese traders.

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21 Lopez, the eminent historian of the Commercial Revolution, viewed credit as a necessity for the occurrence of commercial expansion in a period with a monetary system based upon a limited supply of precious metal. The "take-off [of the Commercial Revolution] was fueled not by a massive input of cash, but by a closer collaboration of people using [commercial] credit." Lopez, *The Commercial Revolution of the Middle Ages* at 72 (cited in note 3).


among individuals from other localities are frequently mentioned in Genoa's historical records. Similarly, contracts for future delivery among individuals from distant localities were common in Italy, England, and France. At the Fairs of Champagne, where much of the trade between northern and southern Europe was conducted during the twelfth and the thirteenth centuries, merchants from different localities frequently entered into contracts for future delivery.

Contract enforceability is necessary for any exchange but enforcement is particularly important in exchange characterized by separation between the quid and the quo. In the absence of appropriate institutions, a borrower, for example, can enrich himself after obtaining a loan by not repaying his debt. Expecting such behavior ex post, a borrower would not lend ex ante. Similarly, a merchant who is paid to deliver goods in the future will find it optimal to retain possession of these goods, implying that the buyer would not be willing to pay ex ante. Hence, exchange characterized by separation over time and space between the quid and the quo requires contract enforcement institutions that enable the transacting parties to commit ex ante to carry out their contractual obligations ex post.

What were the institutions that enabled such exchange during the Commercial Revolution? How could a twelfth-century borrower from Lucca, for example, commit himself ex ante to repay ex post a debt to a lender from London? Did late medieval Europe develop contract enforcement institutions

24 In 1190, for example, two Genoese traders, Bonifacius della Volta and Nicola Mallonus, bought goods from a Piacenzan merchant for 120 lira with one year to pay. On the 28th of March, 1210, Rubeus de Campo of Genoa paid a debt of one hundred marks sterling in London on behalf of Vivianus Jordanus from Lucca. Mario Chiaundano, ed, 2 Il Cartolare di Giovanni Scriba, No 669 (S. Lattes & C. Editori 1935) (see also Nos 138 and 139); H.C. Krueger and R.L. Reynolds, 1 Notai Liguri del Sec. XII e del XIII vi Lanfranco (1202–1226) at 234 (Società Ligure di Storia Patria 1951). Credit transactions among individuals from distant localities were not confined to Italy. They were common in England during the twelfth and thirteenth centuries among English merchants from different cities and among English merchants and French, Flemish, and German traders. See, for example, Calendar of the Patent Rolls Preserved in the Public Record Office, 1266–1272 at 20 (His Majesty's Stationery Office 1913); David C. Douglas and George W. Greenaway, eds, 2 English Historical Documents, 1042–1189 at 954–46 (Oxford 1968); Postan, Medieval Trade and Finance (cited in note 20).

25 For example, in 1191 a Genoese merchant named Ugo Mallonus bought from a Pavian and a Roman five bales of fustian of Pavia at forty pieces per bale, including thirteen vermilion, six green, and the rest brown, and contracted to buy three more bales at mid-Lent and another two at Easter. Margaret W. Hall, Hilmar C. Krueger, and Robert L. Reynolds, 1 Notai Liguri Del Sec. XII, Guglielmo Cassinese (1190–92), No 250 (1938). With respect to England and France, see Moore, The Fairs of Medieval England (cited in note 19); C. Verlinden, Markets and Fairs, in Postan, Rich, and Miller, eds, 3 The Cambridge Economic History of Europe 119 (cited in note 20).
that enabled impersonal exchange? Or was exchange confined to personal exchange in which repeated interactions or family relationships mitigated the commitment problem? Given the available historical evidence, we cannot address this question by tracing the exchange relationships of individual merchants over time. Hence, to examine the extent to which impersonal exchange was possible in pre-modern Europe, one has to determine whether an institution that enabled it then existed.

The absence of one institution is rather clear. In the early days of the period under consideration there was no state with a legal system capable of effectively supporting impersonal exchange among individuals from distant localities. Local courts existed throughout Europe and they could supervise and enforce contracts executed in the areas under their authority. They had the ability to provide contract enforcement for exchange only among individuals present in the (limited) territorial area over which they had legal jurisdiction.26

But the law was absent in yet another sense. By and large, local courts were not unbiased agents of a central legal authority or impartial dispensers of justice. Rather, more often than not, they were arguably the embodiment of local interests and were prejudiced in their judgments against foreigners. Indeed, local courts in the countryside as well as in cities were controlled by the local landed or urban elite. But substantiating the assertion that such courts were partial and their judgments reflected the interests of this elite group is a subtle challenge. It is particularly problematic to provide evidence regarding partiality with respect to alien merchants because, as discussed below, under the CRS these courts would provide—on the equilibrium path—impartial justice exactly because they were partial.

Yet many of the documents cited within this article explicitly reflect contemporary distrust of the impartiality of courts.27 Precisely because there was no impartial legal system that was effective over a large geographical area, the conventional wisdom among economic historians is that prior to the rise of the state, impersonal exchange was either absent or at most confined to spot

26 This was the case even within a relatively well-organized political unit (such as England); there was no legal system that could provide the required enforcement. T.F.T. Plucknett, Legislation of Edward I at 142 (Oxford 1949); Walter Ashburner, ed, The Rhodian Sea-Law (Clarendon 1909); Postan, Medieval Trade and Finance (cited in note 20); Hubert Hall, ed, 2 Select Cases concerning the Law Merchant, A.D. 1239–1633 (46 Selden Society, B. Quaritch 1930).

27 Furthermore, in England we find that local courts provided partial justice to local peasants, making it more reasonable that these courts, in the absence of a countervailing force, would have dispensed unequal justice to non-locals. See, for example, Barbara Hanawalt Westman, The Peasant Family and Crime in Fourteenth-Century England, 13 J Brit Studies 1 (May 1974). Court deliberations in Italy also reflect partiality. For example, profitability considerations, rather than concern for impartial justice, motivated early fourteenth-century Siena courts to deny retroactive limited-liability status to insolvent banks. See Edward D. English, Enterprise and Liability in Sienese Banking, 1230–1330 (Medieval Academy of America 1988).
exchange supported by local courts. In the absence of effective impartial justice, only personal exchange based on personal familiarity and interactions was possible.\textsuperscript{28}

This conclusion, however, ignores the particularities of the historical context in which European medieval trade was conducted: the particular social and institutional context of communities. These were self-governed communities—or communes—in the medieval sense of the word, and most of the towns west of the Baltic Sea in the north and the Adriatic Sea in the south acquired this status during the late medieval period. Like a state, these communes had enforcement institutions. Like a community, their members were personally familiar with each other, while the objective function of their enforcement institutions was arguably to advance the interest of their members rather than serving impartial justice.\textsuperscript{29} Gaining affiliation with a commune or severing it was usually a lengthy and costly process—in the extreme case of Venice, one had to pay tax for twenty-five years to acquire citizenship. More generally, immigration was costly and risky during this period.

Is it theoretically possible that these communities provided the foundation for an institution that supported inter-community impersonal exchange characterized by distance between the \textit{quid} and the \textit{quo}? And if so, did this institution prevail in late medieval Europe?

\textbf{III. THE COMMUNITY RESPONSIBILITY SYSTEM: THEORY}

This Section presents the theoretical argument as to why communities could have been a part of an institution enabling impersonal exchange. It first examines the conditions under which exchange that is impersonal—in the sense of not being based on bilateral, repeated interactions—can be an equilibrium outcome in the absence of communities. It then argues that the conditions required for such an equilibrium did not prevail in the late medieval period. It concludes by presenting why, when communities exist, impersonal exchange among members of different communities can be an equilibrium outcome. For ease of exposition, technical details are suppressed.\textsuperscript{30}

Consider a repeated, random matching game between lenders and borrowers who are engaged (without loss of generality) in credit transactions. Such exchange, as is generally the case, is best modeled as a one-sided prisoners’ dilemma game.\textsuperscript{31} Each borrower can decide whether to initiate exchange with a

\textsuperscript{28} See, for example, North, 5 J Econ Perspectives at 97 (cited in note 1).
\textsuperscript{29} See below regarding the roles of other bodies, such as guilds, having the same function as the commune in the CRS. For the ease of presentation, I concentrate here on communes.
\textsuperscript{30} For details, see Avner Greif, \textit{Institutions: Theory and History} (Cambridge forthcoming 2005).
\textsuperscript{31} Greif, 4 Eur Rev Econ Hist at 251 (cited in note 2).
lender (travel to trade) or not. Every borrower who initiates an exchange is matched with a lender. A lender who is matched with a borrower can decide whether to lend (a finite amount) or not. The payoffs are such that lending is efficient and profitable to both parties, conditional on the borrower paying his debt, but the borrower is better off by not paying than repaying. Assume that the frequency of matching between any two players is sufficiently low that the bilateral reputation mechanism (in which a borrower repays fearing losing the gains from future exchange with this particular lender) can not induce honesty.

The necessary and sufficient conditions for exchange based on a reputation mechanism in the above model, however, are that the economic agents are infinitely-lived or that the per-period probability that a borrower will leave the game is sufficiently low; information regarding past actions is public information; identities are known; and borrowers are sufficiently patient. In this case, there is a sub-game perfect equilibrium ("SGPE") with lending on the equilibrium path. Specifically, the following strategies constitute such an equilibrium: a borrower initiates an exchange but repays if and only if he has never defaulted before; a lender lends only to a borrower who has never cheated before. If the above conditions are believed by the economic agents to hold and it is expected that each would follow the above strategy, a multilateral reputation mechanism supports impersonal exchange. It is known ex ante that a borrower will pay because otherwise he would lose future gains from exchange with all the lenders.

Yet, even exchange that is impersonal in the above limited sense of being based on a multilateral reputation mechanism, could not have supported exchange during the late medieval period. If there is one thing we know with certainty about late medieval traders, it is that their life spans were finite. There was uncertainty about when exactly one would perish, but life expectancy was relatively short and advanced age was difficult to conceal. As noted by Hart, it is inappropriate to model economic agents as infinitely lived. If even ignoring this problem, the above institution does not endogenously enable and motivate lenders to distribute and acquire information. Cheating is directly observed by the individuals involved in the exchange. But why would a lender be motivated to take the costly actions required to inform all other lenders that he had been cheated? In the late medieval period these costs had to have been very high given the communication and transportation technology, the large number of merchants, and the large geographical area in which they operated. Indeed, how would a late medieval trader, even if he wanted to inform others that cheating had occurred, have been technologically able to distribute this information?

Finally, given the large number of medieval traders, how could one communicate the identity of someone who had cheated him? The photograph,

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driver license, and passport were not invented yet. Indeed, most commoners did not even have a last name during this period. Hence, the problem was not only that of transmitting the identity of a cheater to others but also learning about it to begin with. In the absence of supporting institutions, one would have to rely on a statement from his exchange partner regarding his identity. But how could one commit to revealing his true identity if doing so would make it possible to punish him ex post?

Can an institution based on intra-community personal familiarity and contract enforcement institutions enable inter-community, impersonal exchange by simultaneously mitigating all the above problems—specifically, the end-game problem of merchants' finite life spans, the technological and strategic problems associated with the generation and circulation of information about past actions, and the problem associated with one's inability to independently verify the identity of another person and communicate it? Furthermore, can these problems be mitigated despite the fact that intra-community enforcement institutions during the late medieval period were partial?

To address these questions, extend the above basic model in the following way. Each player lives for $T$ periods: $T - 1$ periods of trading and one period of "retirement." In each period the old cohort of borrowers and lenders dies and is replaced. There are two communities: all borrowers are members of community $B$, and all lenders are members of community $L$. A community has several features. Each community has a territory and all lending and repayment is made in the lenders' territory. Each community has an enforcement institution—a monopoly over coercive power—within its territory. Let "LC" denote the lenders' enforcement institution and "BC" the borrowers' enforcement institution.

As the self-governed community in the late medieval period had their own courts, and these courts represented the interests of the community's members, assume that a community court's payoff is the net present value of the sum of the payoffs of the community's living members. Two assumptions are implicit in the above specification. The first is that each community member's payoff has an equal weight in the court's objective function. This clearly did not hold in all times and places and is used here as a benchmark case. The second implicit assumption is that courts don't care about the welfare of future members or

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33 For the technical analysis, see Greif, Institutions (cited in note 30).
34 The analysis is robust to multiple borrowers' communities but is sensitive to assuming multiple lenders' communities. See below.
35 That is, members of cohorts 0 to $T$; the court's value function at the end of a period is the same as in the beginning of the next period.
respect the "honor" of the commune. Relaxing this assumption would only strengthen the results presented below.\footnote{36}

The important aspects of the players' action sets are the following. The BC can establish an organization in the lenders’ community territory certifying the communal and personal identity of a borrower. It can also penalize any borrower in its territory and transfer the funds to the LC. The LC can impound the goods of borrowers present in its territory and distribute these funds or those provided by the BC within the lenders’ community. Although impounding of one's goods reduces their value, it is profitable to the court. An individual borrower's past actions are private information, but they can be verified ex post at cost by the courts following a costly complaint about cheating by a lender. Note that making a parallel assumption of verification in the game without communities would not change the equilibrium set. A lender still would not be motivated to reveal past cheating to a new lender to induce verification because the cheated lender would not recover the cost of complaining. Each court has to bear some cost of verification. Assume for the moment that a court’s actions are publicly observable. In the equilibrium examined below, lenders and borrowers would have an incentive to learn about the courts’ actions.\footnote{37}

In this game, under certain conditions, there is an SGPE with lending on the equilibrium path. The main actions in the associated strategy combination are the following. The BC establishes an identity-certifying organization. The state is that of cooperation as long as the LC has never confiscated goods without a valid complaint, or refused to return confiscated goods once compensated for default, or the BC has refused to pay compensation following a default. In the state of cooperation, borrowers travel to trade, are honest, and pay compensation if demanded of them, and lenders verify identities, lend, and complain if and only if cheated. The LC verifies complaints and demands compensation for the loss only if the complaint is valid while the BC verifies complaints, compensates only if the complaint is valid, and penalizes the

\footnote{36} I assume away the possibility of bribes because decisions over disputes in inter-community exchange were made by a community's representatives and involved many decisionmakers. In Florence, for example, prior to 1250, initiating actions over disputes in inter-community exchange was the responsibility of the city administrator and his council. By 1325, in order to take such actions the city administrator had to make two requests to the Commune to get approval. In 1415, the statute detailing the rules for such actions specified that they were under the authority of consuls responsible for crafts and trade and no longer under the authority of the city’s administrator. Yet, for these consuls to initiate actions in inter-community disputes the actions had to be approved by two additional bodies, the Consuls of the Popolo and the Consuls of the Commune. Santini, *Appunti Sulla Vendetta Privata* at 168–72 (cited in note 19).

\footnote{37} For simplicity, the game omits two important features of the situation: the first is the cost to a lender of verifying the communal and personal identity of a particular borrower. This assumption does not qualitatively change the analysis. The second feature is the presence of many communities. I will return to this issue below.
borrower who defaulted by up to the total cost implied by his default and the legal process. If the state is not that of cooperation, lenders do not lend, borrowers do not travel, a borrower defaults on a loan if he obtains one, and the LC confiscates the goods of a borrower who comes to trade.

The following are the main conditions for this strategy combination to be an equilibrium. First, the punishment that the BC can inflict on a borrower is sufficiently high to render default unprofitable (and hence a borrower prefers to pay). The value of future gains from trade to the borrowers’ community and the value of impounded goods (minus the cost of validating a complaint) is sufficiently high to induce the BC to compensate for default. The value of future gains from trade to the lenders’ community is higher than the confiscated value of the goods of all the borrowers and hence, the LC does not find it optimal confiscate these goods and lose gains from future trade.

Theoretically then, a CRS—an institution encompassing both the above organizations (communities, community courts, and a certification organization) and the belief that the above strategies will be followed—can support impersonal exchange. At its core is making the threat of punishing a borrower who defaulted credible. If a borrower cheats in his \((T - 1)^{\text{th}}\) period, the lenders’ credible threat not to lend again implies that the borrowers’ community is worse off. Because the lender knows the communal and personal identity of the cheater, and expects to be compensated if he complains, he will do so. The BC finds it optimal to punish a cheater because it is optimal for the younger cohorts. A borrower thus finds it optimal to repay his debt. Anticipating that this will be the case, lenders find it optimal to verify a borrower’s identity and lend. Communal (local) enforcement overrides the fear of losing future gain from exchange in inducing honesty.

The CRS thus enables exchange that is impersonal—up to one’s communal identity—by mitigating all the problems that hinder impersonal exchange in the absence of communities. It mitigates the end game problem because the community, although it aggregates only the payoffs of its living members, becomes de facto a substitute for a single infinite-horizon player. The reputation of the community is placed as a bond for the behavior of each of its members. Public information is endogenously generated because a lender who was cheated is motivated to complain. At the same time, the strategies of the players imply that a lender does not benefit from furnishing false claims, and courts are motivated to examine the validity of claims. This model does not account for why, on the equilibrium path, lenders and borrowers would be motivated to verify whether the state is one of cooperation or not. After all, conflict would not occur in this model. When it is expanded, as is done below to include imperfect monitoring, conflicts of a finite length occur on the equilibrium path and borrowers (lenders) are motivated to learn about the state as long as the cost of doing so is sufficiently low.
The CRS changes the information required for impersonal exchange. No lender needs to know the past actions of a borrower. Nor does each lender need to know the personal identity—to be able to recognize—every borrower. To sustain exchange, one only needs to know the communal affiliation and personal identity of his current match. This can be done by approaching the certifying organization of the lenders’ court. Finally, non-contractual, joint communal liability and communal reputation get around the problem of local partial justice. Partial courts are endogenously motivated to provide impartial justice.

IV. THE COMMUNITY RESPONSIBILITY SYSTEM: A HISTORY

Historical evidence supports the claim that the CRS prevailed during the late medieval period throughout Europe. In substantiating the importance of the CRS, the discussion first provides anecdotal evidence for the operation of the CRS, drawing in particular on the history of England and Florence. It then turns to more systematic evidence regarding the scope and the origin of the system.

The strategy associated with the CRS calls for holding a person’s community members liable for his default in inter-community exchange. This strategy is apparent even in documents related to inter-community exchange within the same political unit. In a charter given to London sometime between 1130 and 1133, the King, Henry I, announced that “all debtors to the citizens of London discharge their debts, or prove in London that they do not owe them; and if they refuse either to pay or to come and make such proof, then the citizens to whom the debts are due may take pledges within the city either from the borough or from the village or from the county in which the debtor lives.”

This document also reflects that in England at least, a community de facto was the smallest municipal or administrative unit—borough, village, or county—that could be pressed to penalize a culprit. English legal documents indicate that at times one’s merchant guild—which in many cases was also the governing body of the borough—was one’s relevant community. The same strategy governed the relationships between members of English communities and those of other political units. Consider, for example, a statement made by King Henry III in 1266. The King granted “to his burgesses and merchants of Lubek, that during the king’s life, they or their goods within the king’s power shall not be arrested for any debt whereof they are not sureties or principal debtors; unless the debtors are of their commune and power and have wherewith to pay in

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39 F.W. Maitland, ed, 1 Select Pleas in Manorial and Other Seignorial Courts: Reigns of Henry III. and Edward I. at 134 (2 Selden Society, Bernard Quaritch 1889) (quoting a guild agreement establishing each member’s liability for the debts of other members).
whole or part, and the said burgesses of Lubek, by whom the said town is
governed, fail in justice to the men of the king's land and power, and this can
reasonably be proved." This charter also reflects that the "burgesses of Lubek"
governed the town. The same strategy prevailed in the relationships among
other regions of Europe as is reflected, for example, in a 1252 statute issued by
Margaret, the Countess of Flanders, which held foreign merchants liable for
debts assumed by their peers. The complementary part of the strategy
associated with the CRS—punishment by one's community—is also reflected
in the historical records. Individual responsibility was indirectly enforced through
community responsibility: the community would generally seek to extract from
the defaulter the cost that his default had imposed on his community.

Were rules such as those mentioned above effective in influencing
behavior or were they only statements about how things are supposed to be?
The historical evidence richly indicates that the CRS indeed influenced behavior.
To present events and processes—rather than words—supporting this claim, it
is useful to first extend the above model to explicitly recognize that commercial
disputes can arise and courts have only a limited ability to verify past actions.

To capture the possibility of commercial disputes and that different courts
reach different conclusions based on the same evidence, assume that lender-
borrower relations are characterized by imperfect monitoring. That is, the lender
receives a signal that is a random variable that depends on the action taken by
the borrower. Particularly, even if cheating has not occurred, the lender's signal

41 Although only a principal debtor or his guarantor could be imprisoned for debt, the goods of
other members of the defaulter's community could be impounded. Verlinden, Markets and Fairs at
135 (cited in note 25).
42 For example, in response to accusations of a member's cheating a member of another
community, the Commune of Firenze was to press on the culprit to pay the damages himself.
Santini, Appunti Sulla VendettaPrivata at 166 (cited in note 19). Similarly, some English boroughs
got so far as to have a policy whereby once a foreign creditor could establish that a member of
the borough had failed to repay his debt, the authorities would pay him out of the borough's
funds and later they would seek double indemnity from the debtor. Plucknett, Legislation of Edward
I at 137 (cited in note 26).
43 Disagreement in inter-community exchange over whether one fulfilled his contractual obligation
is reflected, for example, in the Genoese cartulary of Giovanni Scriba. An entry registered on July
22, 1164, indicates that shortly before 1164 a Genoese trader, Amicus Zostro, received a loan
from Xecha Bohadie, a Muslim trader from Tripoli. While Amicus had evidently already arranged
to pay Xecha's brother or son in Sicily, Xecha claimed that no such payment had been made. In
July 1164, following Xecha's assertion that payment had not been made, Amicus sent an agent
named Baldezonus from Genoa to Tripoli carrying six cantras of copper. Baldezonus was
instructed to sell the copper and pay Xecha if the latter would swear in the presence of reliable
witnesses that he would hold neither Amicus nor any other Genoese merchant for ransom.
Chiaundano, ed, 2 Il Cartolare di Giovanni Scriba at No 1245 (cited in note 24).
may indicate that he was cheated. 44 Further assume that each court also has an independent imperfect monitoring ability; if a lender complains, each court receives a signal indicating whether cheating has occurred. Each court’s signal is public and the signals are not perfectly correlated. 45 In other words, courts can sincerely disagree about whether cheating took place.

Under conditions intuitively similar to those examined in the perfect monitoring case, there is a perfect Bayesian equilibrium with lending. Two additional characteristics of this equilibrium, however, are that disputes regarding past conduct will occur and will be followed by conflicts of finite durations. 46 During conflict, impounding will occur and lending will cease for a finite number of periods. Although on the equilibrium path no cheating occurs (in the sense that a borrower chooses not to pay), finite periods of costly conflict are required to provide the communities and the contracting individuals with the appropriate incentives. If the BC’s strategy calls for compensating the lender, although it concludes that cheating did not occur, the LC’s best response is to claim that a dispute occurred even if it did not. Similarly, if the LC’s strategy calls for not confiscating when it maintains that cheating occurred, the BC’s best response is not to furnish compensation even if its signal indicates that cheating occurred, thereby motivating borrowers to cheat. Misrepresenting information has to be costly and forgone gains from exchange are the means of generating these costs. 47

Hence, if the CRS prevailed, the historical records should provide court cases reflecting the above strategy of holding community members liable, confiscating their property, and ceasing trade for a finite period of time following a dispute. 48 In particular, according to the above model, ceasing trade

44 The historical records suggest that disputes were more likely to occur when one of the contracting parties passed away, the debt was old, the contract was not clearly defined, or the contracting obligations were allegedly fulfilled by the agents of one of the parties rather than one of the parties themselves.

45 It is assumed, for simplicity, that if there is no dispute, the courts have perfect monitoring ability.

46 This conclusion qualitatively holds even if one complains of cheating although a dispute did not occur, and the courts have imperfect monitoring ability in the sense that in positive probability each court will reach a distinct conclusion following the complaint.

47 Using arbitration is problematic. If it is cheap, it will not provide the appropriate incentives; for example, the LC will submit claims regarding disputes even if it knew they were groundless. To restore incentives, the price of arbitration has to be set high, making it less appealing. The only case known to me is between Volterra and San Gimignano in 1234. The arbitration by the Council of Florence, however, failed. Santini, Appunti Sulla Vendetta Privata at 168 (cited in note 19). Note, however, that this arbitration was ex post and hence does not fit the theoretical reasoning for its failure.

48 Such evidence is indeed ample. For example, in 1238, Beatrice, wife of Marcovaldo of Florence, requested a retaliation against the properties of the people and the Commune of Pisa, for a sum of 2,000 and interest of 750 dinar piccoli of Genoa, to be paid by the heirs of Ubaldo Viscount and Torritano, the son of the late Lamberto, and by two Pisans who had posted a guarantee for
would occur when the two courts differed in their assessment of the situation. Various commercial treaties reflect that contemporaries indeed considered retaliation to be unavoidable in cases of disagreements among courts.\(^4\)

Retaliation was a calculated response aimed at fostering exchange, rather than an act of revenge. This is suggested by attempts to confine it only to inter-community commercial matters.\(^5\) Further evidence that retaliations were a means to ensure proper incentives rather than compensation per se is suggested by the observation that they lasted for finite periods, and communities terminated a retaliation period by announcing a “suspension” without making it conditional on full compensation. Retaliations arguably lasted long enough to make misrepresenting information sufficiently costly.\(^5\)

The assertion that the CRS enabled inter-community impersonal exchange gains further support from examining the organizational details of late medieval trade. Consider, for example, the puzzling features of the Champagne Fairs, arguably the most important inter-regional trading fairs in Europe during the twelfth and thirteenth centuries.\(^5\) The fairs were not organized as meeting places

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\(^4\) A treaty between Pisa and Florence signed in 1214 specifies that retaliation would follow if the judges were unable to settle the dispute. Santini, *Appunti Sulla Vendetta Privata* at 165–68 (cited in note 19). The operation of the CRS critically depended on the ability to verify actions ex post. Verification is relatively easy in transactions such as credit and contracts for future delivery, but is more difficult in transactions such as agency relationships in which one has a large latitude in choosing actions. Indeed, I found no evidence that the CRS governed such transactions.

\(^5\) For a discussion of suspension, see Arias, 1 *Trattati Commerciali* at 177–88 (cited in note 19); Santini, *Appunti Sulla Vendetta Privata* at 165 (cited in note 19).
among individual merchants from different localities. On the contrary, they were organized as meeting places for traders from different communities, who often had their own places of residence, storage, permanent representatives, scribes, and a consul, who had legal authority over the community members present at the fair. Although the authorities of the Fairs contracted with various surrounding rulers to secure the right of passage for merchants on their way to the fair and safeguard their property rights within the fair, these authorities relinquished some legal rights over these merchants once they were there.

The rationale behind these arrangements is transparent once one recognizes that they were part of the organizational features of the CRS. The common place of residence, scribes, and consuls enabled one to establish the communal and personal identity of a merchant whom he did not know personally. A contract written by the scribe of a particular community constituted proof that a particular member of that specific community assumed a particular obligation in inter-community exchange.

If a community is held liable for the actions of its members, it has to have the representation required to verify who its members are, and the ability to discipline them when necessary. Conversely, the fairs' authorities must have had the ability to identify members of a particular community and its representatives in order to approach them when necessary. Indeed, in 1260 the wardens of the Champagne Fairs could pronounce a sentence of exclusion from the fairs following a default, and this exclusion was extended to the compatriots of the defaulters if the judicial authorities of their own towns or principalities did not compel them to fulfill their obligations.

In smaller fairs and within cities, less extensive arrangements provided the means to identify one's communal and personal identity. Merchants of the same community traveled together, lodged together, and witnessed each other's contracts. Members of distinct communities, even within the same political entity, were noticeably separate from each other in such mundane ways as how they spoke, dressed, and cooked. In Italy, the medieval communal structure survived the longest and local dialects lasted until the twentieth century. Indeed, contracts and court cases reflect the large extent to which medieval merchants knew one another's communal affiliations.

In regions with a relatively strong central political authority, a fair's authorities were motivated to follow the procedures of the CRS so that they

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53 For the possibility of conducting impersonal exchange characterized by separation in time between the quid and the quo in fairs organized as meeting places among individuals, see Milgrom, North, and Weingast, 2 Econ & Pol at 1 (cited in note 10).

54 For a general discussion of surnames during this period, see Richard W. Emery, The Use of the Surname in the Study of Medieval Economic History, 7 Medievalia et Humanistica 43 (1952); Robert Sabatino Lopez, Concerning Surnames and Places of Origin, 8 Medievalia et Humanistica 6 (1954).
would not be sued by the central authorities if they broke the rules. More generally, however, fairs' authorities were probably motivated to follow the LC strategy—holding a community liable to the contractual obligations of each of its members—because running a successful fair was a profitable business. Providing inter-community impersonal contract enforcement increased the fair's attractiveness to merchants but the ability to do so critically depended on the CRS. Without it, fair authorities were unable to extend their reach beyond their limited geographical areas and the threat of excluding a particular individual from the fair was arguably rather ineffective. Individuals could not have been deterred from cheating in their old age or defaulting on their contracts; they could continue trading through agents or family members.

Understanding the importance of the CRS in fostering trade during the late medieval reveals the rationale behind a puzzling observation. By and large, fairs did not have an affiliated community of long-distance traders. The merchants of the large fairs such as the Champagne Fairs or the Fair of St. Ives were local traders. Although systematic research on this issue is yet to be conducted, it seems that these traders were active locally and did not travel to other trade centers. Why would this be the case? Under the CRS, trade centers without an affiliated community of long-distance traders had a comparative advantage in providing the contract enforcement in impersonal exchange relative to trade centers that had such a community. In the latter case, the incentives to prove inter-community enforcement were diluted since the trade center's own merchants might have had to bear the cost of retaliation in case of inter-court disputes. If a merchant from community A sued a member of community B in the court of community C, the resulting dispute would hurt the merchants from the C community visiting community B. Hence, community C had much to lose from adjudicating such disputes. These concerns are explicit in Florentine legal documents. Only Florentine citizens could have demanded impounding the goods of alien merchants in a Florentine court. Trade centers which did not

55 This is well reflected in a thirteenth-century court case from the Fair of St. Botulph in England. A certain James complained that several merchants from Brussels had cheated him. After verifying his complaint, the fair bailiff impounded wool belonging to the merchants from Brussels who were present at the fair, but for some reason released them later on. James responded by entering a plea against the bailiff before the "lord king" of England. In the plea he complained that the "bailiff of the fair aforesaid, had wrongfully delivered sacks of the wool aforesaid to the aforesaid merchants (of Brussels) to the grave damage and manifest loss of James himself, inasmuch as the same commune has not yet satisfied him in respect to the debt aforesaid." Gross, ed, 1 Select Cases concerning the Law Merchant, A.D. 1270–1638 at 11–12 (cited in note 48).

56 For many examples of using the CRS in the courts of English fairs, see Moore, The Fairs of Medieval England (cited in note 19).

have an affiliated merchant community had, therefore, relative advantage in providing contract enforcement in inter-community, impersonal exchange.

That the CRS was regulated by an imperial law in Germany suggests that it was the rule rather than the exception in that region of Europe. The fact that we have hundreds if not thousands of pieces of evidence regarding the CRS from all over Europe suggests that it was the rule rather than the exception in Europe. By the thirteenth century, the CRS prevailed in the most populated and commercial European areas, that is, Italy and Flanders, in the largest political unit, France, and in the best organized country, England. Arguably, the emergence of the CRS does not reflect its function. Rather, it reflects the political process of state formation in Europe during this period in which weak central control and conflicts between kings and their great lords fostered the emergence of semi-autonomous communities with intra-community contract enforcement institutions. In addition, the Europeans shared a legal tradition of man-made (rather than divine) law which, in the context of self-governed communities, provided a means for economic agents to directly influence their legal procedures and laws. Historical processes that led to the rise of self-

58 A treaty signed between Pisa and Florence in 1214, for example, contains the provision that if one community refused to compensate the other, members of the latter would be allowed forty days to leave town. More than a century later, in 1325 this has become the default in Florence. A Florentine statute requires the city's administrator to wait one month between declaring and acting upon any impounding of goods under the CRS. Santini, Appunti Sulla Vendetta Privata at 165, 68-72 (cited in note 19). In England, as reflected in the above charter given to Lubeck, confiscation was allowed only if the BC failed to provide justice. While the above evidence cannot be generalized, a 1231 German law reflects a broad transition away from confiscation as it made such a clause mandatory throughout the Empire. Hans Planitz, Studien zur Geschichte des Deutschen Arresoprozesess, 40 Zeitschrift der Savigny-Stiftung für Rechtsgeschichte: Germanistische Abteilung 87, 177 (1919).

59 Patourel, The Medieval Administration of the Channel Islands (cited in note 19).

60 Indeed, examining all the surviving city charters from England indicates that by 1256, cities with 65 percent of the known urban population used the CRS. (Consistent with the above analysis, none of the surviving charters of the smaller Irish cities reflects the operation of the CRS.) The population of cities is taken from Paul Bairoch, Jean Batou, and Pierre Chèvre, eds, The Population of European Cities from 800 to 1500 at 32-35 (Librairie Droz 1988). I considered only cities with a population of at least 5,000 people by 1300. A city was considered to have a CRS if its charter permitted it. For the charters, see Adolphus Ballard, ed, British Borough Charters, 1042-1216 (Cambridge 1913); Adolphus Ballard and James Tait, eds, British Borough Charters, 1216-1307 (Cambridge 1923). See also Moore, The Fairs of Medieval England (cited in note 19) and Plucknett, Legislation of Edward I (cited in note 26). In Italy, all the major commercial cities—Venice, Genoa, Florence, Milan, and Pisa—had the CRS as well as numerous smaller ones. See, for example, Arias, I Trattati Commerciali (cited in note 19); Del Vecchio and Casanova, Le Rapprisegne nei Comuni Medievali e Specialmente in Firenze at 14-15 (cited in note 57). For evidence regarding Flanders, see Verlinden, Markets and Fairs at 135 (cited in note 25); regarding France, see Patourel, The Medieval Administration of the Channel Islands (cited in note 19); regarding Germany, see Planitz, 40 Zeitschrift der Savigny-Stiftung für Rechtsgeschichte: Germanistische Abteilung at 87 (cited in note 58).
Impersonal Exchange without Impartial Law

governed communities and a particular legal tradition, as well as the related economic motivation, led to the emergence of the CRS.

V. INSTITUTIONAL DECLINE AND TRANSITION: FROM THE CRS TO INDIVIDUAL LEGAL RESPONSIBILITY

The CRS enhanced efficiency by supporting inter-community, impersonal exchange, but it also entailed costs. Furthermore, the implied costs and benefits were distributed differently among various members of a community. Ironically, the same processes that the CRS fostered—growth in the size, number, and heterogeneity of merchants’ communities—contributed over time to diminishing the system’s effectiveness, increased its economic costs, and undermined its intra-community political viability.61

Theoretically, the growth of cities and the extensive inter-community interactions that the CRS enabled reduced the cost of falsifying one’s community affiliation and increased the cost of verifying it. Inter-community conflicts were therefore more likely to occur. The growth in size and number of communities during the late medieval period was impressive. For example, between 1200 and 1300 the population of Genoa increased from about 30,000 to 100,000, while that of Venice increased from about 70,000 to about 110,000.62 In England there were a little more than 200 boroughs at the turn of the thirteenth century, but there were about 500 at its end.63 By the second half of the thirteenth century, the ease of falsification and the difficulty of verification seem to have hindered the operation of the CRS in England.64

Indeed, the decline of the CRS cannot be attributed to the usual suspects of institutional change during the late medieval period: technological change or the rise of the territorial state. There is no evidence for such technological change, and while the rise of the state and its pressing needs contributed to the decline of the CRS in France (particularly during the Hundred Years War), the CRS declined also in areas such as Italy and Germany, where the rise of the state was not the case.

63 As Moore has noted, “[t]his procedure [of the CRS] apparently worked well enough in many cases, but it could be cumbersome and time-consuming both for the creditor and the court: it usually seems to have involved long disputes over whether or not the original debtor and/or the men actually being sued for the debt were truly members of their town community or gild, with everyone scurrying to disclaim responsibility for the obligation.” Moore, The Fairs of Medieval England at 119 (cited in note 19). Similarly, Plucknett noted that “there seems to have been much trafficking between foreign merchants and natives whose mercantile status was doubtful, and whose assets and persons were by no means entirely within the territorial jurisdiction of a local court.” Plucknett, Legislation of Edward I at 138 (cited in note 26).
64 Indeed, declining confidence in the CRS in England is reflected in the Close Rolls. Throughout the period under consideration, merchants could have chosen to register debts in these chancery rolls, thereby placing their transactions under the jurisdiction of the Common Law. This implies that property and goods could have been placed as bonds for repaying debts.
Theoretically, the growth in the number of traders increased the total economic costs of the CRS because more traders increased the probability of conflict in each period. Furthermore, the increase in the probability of conflict increased the cost of strategic uncertainty. Courts, after all, could impound goods only from traders present in their jurisdiction. Whenever conflict loomed on the horizon, each merchant was motivated to make sure that he was not present. Yet, most likely, the uncertainty implied by the CRS could not be completely avoided and as the size of communities grew, the costs of retaliations and uncertainty increased as well.

The CRS also undermined its own economic efficiency by intensifying the adverse selection and moral hazard problems associated with commercial ventures financed by credit. As is well known, under credit financing, the lender assumes all downside risks while the borrower retains all the gains above a certain amount. Hence, credit financing encourages borrowing for high-risk ventures. Appropriate incentives to lenders to evaluate ex ante the creditworthiness of the borrowers mitigate this problem, but the CRS undermined such incentives. Even when, as assumed in the above model, matching is random and one does not know his business partners’ past actions, a lender can still evaluate the creditworthiness of a borrower based on other signals. In the historical episode under consideration, these signals included the borrower’s age, type of clothing, number of servants, the quality and nature of the goods he carried, etc.

The CRS, however, reduced the incentive to invest in conducting such an evaluation relative to a case of individuals’ legal responsibility. After all, unlike individual legal responsibility, under the CRS the future trade of all members of one’s community is the de facto collateral for the loan. Clearly, the incentive to check creditworthiness is not completely eliminated because of the cost associated with recovering a loss, but it is less than it would have been if only

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Registration, however, was costly, and prior to 1271 few debts, if any, were enrolled each year. As long as the CRS functioned well, traders relied on it and did not register their debts. Between 1257 and 1271, however, the number of registered debts increased by a factor of forty-three. Moore, *The Fairs of Medieval England* at n 105 (cited in note 19). Based on all the available records in the *Close Rolls of the Reign of Henry III*, 1256–1259 (His Majesty’s Stationery Office 1932); *Close Rolls of the Reign of Henry III*, 1259–1261 (His Majesty’s Stationery Office 1934); *Close Rolls of the Reign of Henry III*, 1261–1264 (His Majesty’s Stationery Office 1936); *Close Rolls of the Reign of Henry III*, 1264–1268 (His Majesty’s Stationery Office 1937); *Close Rolls of the Reign of Henry III*, 1268–1272 (His Majesty’s Stationery Office 1938). It should be noted, however, there is only one entry for 1257; four for 1269; and forty-three for 1271. See Plucknett, *Legislation of Edward I* at 137 (cited in note 26), regarding the cost of using the common law.

Florence’s historical records reflect the impact of this uncertainty. Agreements aimed at reducing the cost of this uncertainty reflect recognition of this problem. Italian communities agreed to restrict the penalty that could be imposed on a particular individual or to allocate the costs more evenly. In some cases, attempts were made to use taxes on members of a community to allocate the costs of retaliation. Arias, *I Tratati Commercial* at 52, 156–58, 165 (cited in note 19).

65 Florence’s historical records reflect the impact of this uncertainty. Agreements aimed at reducing the cost of this uncertainty reflect recognition of this problem. Italian communities agreed to restrict the penalty that could be imposed on a particular individual or to allocate the costs more evenly. In some cases, attempts were made to use taxes on members of a community to allocate the costs of retaliation. Arias, *I Tratati Commercial* at 52, 156–58, 165 (cited in note 19).
borrowers had been held responsible for their debts. Hence, the CRS arguably fostered the entry of more merchants with a higher probability of being unable to repay their loans as the size of communities increased.66

Recognition of the above problems and their relationship to the CRS is indirectly reflected in the seemingly puzzling changes in laws and rules that took place during the thirteenth century. In Italy, England, and Germany the authorities increased the cost of default to the lender by demanding that prior to requesting justice from his community's legal authorities, a lender had to travel to the borrower's community and make his case there. Only if justice was not provided could he apply to his community court to request retaliation.67 In Italy, apart from a similar shift in the lender's obligation, there seems to have been a move during this time from personal law toward territorial law. Alien merchants who were previously under the jurisdiction of their communities while abroad were increasingly placed under the authority of the community in which they were present.68

Such changes are puzzling. Why punish a lender who was not paid? Why was there a transition to territorial law? These changes, however, are consistent with the argument that the CRS was contributing to its own demise by fostering the adverse selection and moral hazard problems, and increasing the cost to a lender countered these factors' increasingly negative impact on trade. Increasing the cost of default to lenders provided them with more incentives to evaluate borrowers' creditworthiness. The shift toward territorial law seems to reflect an attempt to increase the cost of default to borrowers given that the inter-community interactions the CRS fostered made immigration easier.

The ability to mitigate the problem of runaway defaulters, however, was limited, probably because of the courts' limited ability to check the identity of non-residents (as discussed in Section III). Even in the well-organized kingdom

66 Awareness that the CRS intensified the problems associated with credit financing is well reflected in a document from February 8, 1281 in which several cities in Tuscany agreed not to retaliate against each other. In announcing this agreement to their merchants, the authorities stated that the local merchants should start paying more attention to the personal creditworthiness of the foreign merchants with whom they would be dealing, as henceforth “a chui dato a colui rettelo” (that is, “to whom it is given, from him it will be asked”) and if he is not able to pay, impounding goods from his community members will not be permitted. Id at 166–67.

67 In Germany, this change is reflected in the above-mentioned Imperial Decree from 1231. In England, it is reflected in various charters. The City of Cambridge, for example, received a charter and the right to establish a merchant guild as early as the middle of the twelfth century, but only later charters reflect rules increasing the cost of default to lenders. Maitland and Bateson, eds, The Charters of the Borough of Cambridge at 15 (cited in note 19).

68 See, for example, Arias, I Trattati Commerciali at 100 (cited in note 19) (discussing a 1279 treaty between Tuscan towns).
of England, authorities were known to have been usually unable to locate an individual who escaped from his place of residence.69

The mere fact that the CRS was probably becoming less efficient and more economically costly over time would not necessarily have led to its decline. What seems to have induced attempts to abolish the system was the reduction in its intra-community political viability. The intra-community social and economic heterogeneity to which the CRS contributed implied that within a community the costs and benefits of the CRS were not distributed evenly. Those who gained relatively little, therefore, were thus motivated to abolish it.

If correct, this assertion has two implications: first, larger—and hence arguably more heterogeneous—communities were likely to attempt to abolish the CRS; second, rich, well-established merchants would wish to abolish the CRS. After all, wealthy merchants gained less from the CRS because they had the connections, reputation, and wealth to conduct personal trade, and they bore more of its cost because they had more wealth abroad. Similarly, a community’s non-mercantile component was likely to want to abolish the CRS. Although they bore some cost during a conflict due to the absence of alien merchants, they did not directly gain from the CRS.

Indeed, the historical records reflect a decline in the CRS that is consistent with the above predictions. In England and Italy alike, wealthy traders and large communities sought exemptions from the CRS or wanted to abolish it altogether. Moore examined cases brought before the court of the St. Ives Fair in England and noticed that in the second half of the thirteenth century there “were increasing numbers of individuals . . . able to respond to . . . suits [related to the CRS] by producing royal licences of immunity from prosecution for any debts except those for which they were principal debtors or pledges.”70

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69 Plucknett, Legislation of Edward I at 142 (cited in note 26). As late as the seventeenth and eighteenth centuries, “a felon could consider himself distinctly unlucky if he was captured by the authorities.” John Bellamy, Crime and Public in England in the Later Middle Ages 201 (Rutledge and Kegan Paul 1973). In England, as a matter of fact, one did not even have to escape in order to avoid paying a debt. During this period English law precluded selling one’s house or real estate to repay a loan, or even punishing a borrower who defaulted with imprisonment. W.J. Jones, The Foundations of English Bankruptcy: Statutes and Commissions in the Early Modern Period (Am Philosophical Soc 1979).

70 See Moore, The Fairs of Medieval England at 119 (cited in note 19) (noting a dramatic increase of St. Ives Fair merchants possessing royal licenses of exemption from suit to satisfy any debt for which they were neither principals nor pledgers); Douglas and Greenaway, eds, 2 English Historical Documents at 945–46 (cited in note 24) (In 1133 Henry I gave Londoners freedom from the jurisdiction of any court outside of London); and Calendar of the Patent Rolls Preserved in the Public Records Office, 1225–1232 at 460 (His Majesty’s Stationery Office 1903) (Sometime between 1225 and 1232, Henry III assured the merchants of Ypres that none of them “will be detained in England . . . nor will they be partitions for another’s debts.” However, the Ypres were subject to, and could avail themselves of, the jurisdiction of the royal courts).
In England, large communities approached the king seeking exemptions from the CRS. Italian historical records also reflect a reduction in the intra-community political viability of the CRS. Indeed, attempts to abolish the CRS in Florence reflect the interests of particular segments in the city. The *mercatores* of Florence were the city’s affluent merchants whose business during the thirteenth century was carried out over most of Europe, as far north as Sweden. While they may have had the ability to exchange based on their own reputations, they had a great deal to lose from retaliation. Once they secured political control over the city, they entered into a sequence of treaties aimed at moving Florence away from the CRS. That most of Italy’s large city-states also sought an end to the CRS in the thirteenth century suggests that by then, the most important Italian communities wanted to abolish it.

While, most likely, similar factors contributed to the decline of the CRS in various parts of Europe, the ability to devise an alternative system depended on the larger political context. In Italy, there was no third party—such as a king—that could have devised an impartial legal system. Indeed, although inter-community treaties to abolish the CRS in Italy were signed during the early and then the late thirteenth century, retaliation continued in future centuries. In Germany, the disintegration of the Empire during this period implied that no central ruler was available either. Germany seems to have resorted to a “feud system” in which a merchant would have to hire a feudal lord and use a mercenary army in order to force a community to compensate him for a default. This was not the case in England, where the state enabled the communities to abolish the CRS. However, even in England the CRS system died slowly. The first alternative contract enforcement institution was put in place under Edward I, in multiple steps between 1275 and 1285. In 1275, King

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71 See, for example, Arias, *I Trattati Commerciali* at 165 (cited in note 19) (discussing one group of merchants’ attempt to settle a dispute with Bologna despite seeming indifference on the part of the general Florentine establishment); see also id at 400–04 (Latin version of a treaty between Florence, Venice, and Genoa, as well as most of the cities of Tuscany, Lombardy, Romagna, andMarca Trevigia, ending the CRS system and enabling impersonal inter-community exchange by an agreement by each town to imprison any merchant in its territory who was fleeing with other people’s money and to provide justice to his creditors); Santini, *Appunti Sulla Vendetta Privata* at 168–72 (cited in note 19) (By 1415 it was forbidden to retaliate against foreign rectors, officials, or against traders coming to Florence to sell edibles.).


74 The alternative contract enforcement institution established by Edward I may have been influenced by a similar institution that had been enacted in France. See discussion in Patourel, *The Medieval Administration of the Channel Islands* at 97 (cited in note 19), who also refers to the work of A. Giry, *Manuel de Diplomatique* 649–52, 835–54 (Librairie Hachette et Cie 1894), who discusses this institution in France. The crucial components of the new institution were laid down in the
Edward I issued the Statute of Westminster I that forbade applying community responsibility to debts, and established the following ruling with respect to any “stranger who is of this kingdom” (namely, an Englishman from one locality present in another).75 Such an individual should not “be distrained in a city, borough, vill, fair or market for what he is neither debtor nor pledge for, and he who does this is to be severely punished and the distress is to be released without delay by the bailiffs of the place or by the other, the king’s bailiffs if need be.”76 Edward seems to have abolished the system, recognizing its cost, only to later realize its benefits and gradually introduce an alternative based on individual legal liability. A contract enforcement institution based on individual responsibility, similar to the contract enforcement institution based on collective responsibility that it replaced, developed slowly.

Changes and refinements in the CRS are reflected in historical documents long before the thirteenth century. After all, documents reflecting such changes constitute important evidence for the system and its effectiveness. The interests of individual merchants in becoming exempt from the system were not new in that century either. But the thirteenth century was nevertheless a turning point in the historical process through which contract enforcement institutions governed impersonal change. It was the first time that there was a wholesale abolishment of the system on the one hand, and the provision of relatively effective alternative—at least within some territorially large political units—on the other.

VI. CONCLUSIONS

The Community Responsibility System enabled impersonal exchange during the late medieval period. This exchange was impersonal in the sense that

75 Rothwell, ed, 3 English Historical Documents, 1189–1327 at 404 (cited in note 74).
76 Id. The Statute of Westminster I did not establish any alternative institution for contract enforcement and the results in terms of an inability to contract were apparently severe (although the merchants could have used, as mentioned above, the costly and time consuming common law court). A later statute in 1283 declared that:

merchants who in the past have lent their substance to various people are impoverished because there was no speedy law provided by which they could readily recover their debts on the day fixed for payment, and for that reason many merchants are put off from coming to this land with their merchandise to the detriment of merchants and of the whole kingdom.

Id at 420.
individuals who did not expect to transact again did not condition their decision whether or not to exchange upon knowledge of one’s past actions or the ability to transmit one’s identity to future exchange partners. The CRS enabled exchange that was impersonal, up to one’s community affiliation, despite the absence of a centralized legal system provided by the state, the impartiality of the local courts, the finite lifetimes of humans, and the difficulties in communicating one’s identity and verifying past actions.

The CRS was a self-enforcing institution in the sense that all relevant incentives—to individual traders and their communities—were provided endogenously. Initially, it was also a self-reinforcing institution, in that it led to processes that increased the range of parameters within which it was self-enforcing. While the CRS was based on the existing, community-based social structure, it reinforced this structure by motivating the community members to clearly define their communal membership, to establish the organizations required to indicate who their members were to the rest of the society, and to strengthen their intra-community enforcement institutions. Similarly, the CRS was reinforced by the introduction of other supporting organizations, structures, rules, and regulations.

But in the long run, the CRS was a self-undermining institution. Its own implications bred processes leading to its destruction. The CRS contributed to the growth of long-distance trade and the size, number, and heterogeneity of communities, and these changes undermined its self-enforceability. They reduced the system’s effectiveness, economic efficiency, and its intra-community political support. Such processes made it easier, for example, to falsify one’s community affiliation, hindered verification of this affiliation, reduced the cost of inter-community mobility, increased the severity of the adverse selection and moral hazard problems, and made some members of the community worse off under the system then they otherwise would have been. Over time, certain members of communities sought exemptions from the CRS, and communities themselves were laboring to abolish it. Where possible, the state stepped in to provide an alternative. The European economic institutions moved closer to their current situation in relying on individual legal responsibility and relatively impartial law provided by the state and reputation considerations that complement each other.

Yet collective responsibility still plays a role in contemporary economies, and the extent of impersonal exchange feasible in Europe is yet to be

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77 See Greif, Institutions (cited in note 30) on the relationships between self-enforcing, self-reinforcing, and self-undermining institutions. Intuitively, a self-enforcing institution re-enforces (or undermines) itself when its implications increase (or decrease) the set of parameters in which it is self-enforcing.
accomplished in many developing countries. Collective responsibility plays a role in micro-lending in developing countries and in inducing sovereigns to pay their international debts. Collective reputation is important in business associations where partners can assume joint and unlimited liability and arguably, the modern firm is, like the CRS, a mechanism that fosters impersonal exchange. The firm's reputation enables exchange between its many (anonymous) workers and those who buy the product of their labor. A firm's reputation and its intra-firm ability to discipline workers facilitate exchange between these workers and outside consumers. Collective responsibility is voluntary and contractual. Indeed, as Levinson has noted, because collective responsibility is closely associated in our mind with racism, we fail to see the large extent to which it can be harnessed for the production of a collective good.

We have no theory regarding the optimal scope of voluntary and involuntary collective responsibility and we know little regarding the historical processes and factors that determined the evolution of this scope in various economies. Nor do we know much regarding the interplay between contract enforcement institutions that supported impersonal exchange and the development of impartial legal system. More generally, if the ability to enter into impersonal exchange is a key to the division of labor and the rise of market economies, comparative studies of the evolution of contract enforcement institutions facilitating impersonal exchange are likely to greatly enhance our understanding of the diverse historical process of economic development in various societies.

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