

**On the Social Foundations and Historical Development of Institutions that Facilitate
Impersonal Exchange:
From the Community Responsibility System to Individual Legal Responsibility in Pre-
modern Europe**

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Abstract

Existing works on the economic implications of social structures examined the effect of intra-community information and contract enforcement institutions on personal exchange among that community's members. In contrast, this paper examines the extent to which common knowledge regarding social structure impact the set of feasible institutions and thereby the scope of inter-community, impersonal market exchange. When this extent is large, economic agents can condition their actions on one's social affiliation thereby enabling the operation of an institution taking advantage of intra-community, personal contract enforcement to support inter-community, impersonal exchange. This argument is embedded in a historical study of contract enforcement institution that supported inter-community, impersonal exchange in pre-modern Europe. The paper's game theoretical and historical analysis indicates the importance of a particular institution - the Community Responsibility System - in supporting inter-community, impersonal exchange from as early as the twelfth century despite the lack of appropriate legal contract enforceability provided by the state. Thus, the analysis suggests the deficiency of the common view in economic history that in pre-modern Europe impersonal exchanges were not conducted before the emerging states established the appropriate legal systems. By the thirteenth century, however, various communities attempted to abolish the Community Responsibility System and substitute it with legal contract enforcement provided by the state. Social processes that impact the extent to which social structure is common knowledge, communities' size, intra-community heterogeneity, and inter-community mobility were important contributors to this transition..

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Introduction:

Exchange is an agreement among economic agents regarding property rights in goods characterized by their physical attributes as well as location over time and space. For exchange to take place, there should be a contract enforcement institution which, by limiting the parties' ability to inflict costs on each other by defaulting, ensures that efficient exchange will also be profitable to both parties. While there is a long tradition in economics extolling the contribution of contract enforcement provided by the legal system in facilitating exchange, recent works in game theory indicate that legal contract enforcement may not theoretically be required to support exchange even in random matching games. Exchange can be made possible by institutions based on reputation mechanism which enables behavior in future exchange to be conditional on past conduct, increasing the cost of default. For this mechanism to function, however, "a community needs a certain amount of information [about past actions] to sustain its norms" that support exchange (Kandori, 1992, p. 68).¹ Indeed, empirical works by sociologists, economists, and economic historians have revealed the economic importance of intra-community contract enforcement institutions and information transmission mechanisms in fostering intra-community, personal exchange.²

By explicitly integrating social aspects into an economic analysis, these theoretical and empirical studies depart from a long tradition in neo-classical economics which maintained that the economic aspects of a society could be studied while ignoring its social aspects.³ Yet, these studies also suggest the limited ability of social factors to provide a basis for the operation of economic institutions which facilitate exchange. Since one aspect of reputation-based institutions is making future exchange conditional on past conduct, such institutions are perceived as not being able to support impersonal exchange, namely, exchange in which the contracting parties condition their decision on whether or not to exchange on the extent to which exchange is economically efficient regardless of the parties' past actions. Hence, these studies also suggest the rationale for the existence of legal systems in market economies. To support impersonal exchange and the related market expansion, it is necessary to have a legal system based on the coercive power of the state.

¹ Legal centralism: Williamson (1985), pp. 20-1 and Ellickson (1991). Theory: Milgrom, North, and Weingast (1990), Kandori (1992), Greif (1993), Ellison (1994). Kandori and Ellison also examined "contagious equilibrium" in which information about past actions is not required to support exchange. Yet, such an equilibrium exists under very restrictive conditions.

² E.g., Granovetter (1985), Macaulay (1963), Macneil (1985), Landa (1988), Klein (1992), Fafchamps (1995), Bernstein (1992), Montgomery (1991), Greif (1989, 1993, 1994), Guinnane (1994).

³ See Hirschman (1982) for an excellent survey of conceptual approaches to the relations between markets, social structures, and values.

This paper argues that whether or not a legal system is required to support impersonal exchange depends on a society's social structure, its intra-community contract institutions, and, in particular, the extent to which its social structure is common knowledge. To substantiate this point, the paper relies on insights from a repeated game in which the players have a finite life-span and private information about past actions (that can be imperfectly verifiable by a court). These assumptions imply that when ignoring the above social aspects of a society a legal system is required and must be able to support exchange. Yet, when the above conditions hold, there is also another institution, based on a community's reputation, that can support impersonal exchange. Impersonal, market exchange can be supported if each member of the society is a member of a community that can establish an intra-community contract enforcement institution and the individuals' community affiliation is commonly known. When these conditions hold, there exists an economic institution based on reputation that can support impersonal, inter-community exchange.⁴ The essence of this institution is conditioning actions on one's social affiliation rather than on past behavior. By holding all members of a community responsible for the default of a particular member, the community is provided with the incentive to employ its intra-community contract enforcement institution to *ex post* punish one who defaulted in inter-community exchange.

The theoretical examination of the relations between commonly known social structures, economic institutions, and impersonal exchange is embedded in an empirical study of the development of institutions that facilitated impersonal exchange in pre-modern Europe - specifically, the period from the twelfth to the fourteenth centuries during which Mediterranean and European long-distance trade and inter-community credit markets, insurance markets, and futures markets emerged after an extended period of decline (e.g., Pirenne, 1956; Lopez, 1976). While understanding that period's institutions is important for its own sake, another motivation for this empirical study was that previous studies of this period both reflected and inspired the view that only the legal system could support impersonal exchange. North (1991), for example, invokes the experience of the Western world to argue that a legal system administered by the state is a necessary condition for an advanced division of labor and a market economy. "Undergirding ... markets are secure property rights, which entail a polity and judicial system to permit low cost contracting" (p. 101). Hence, market societies "need effective, impersonal

⁴ An analysis close in spirit to the one conducted here is by Tirole (1996). He analyzes a group's collective reputation and hence also includes the examination of strategic inter-dependency between a group and its members. The focus and details of this analysis substantially differ, however. Particularly, Tirole examines the case when an individual's past behavior is imperfectly observed, while the current analysis focuses on the extent to which a community's affiliation can make past behavior irrelevant to the decision to exchange.

contract enforcement [provided by the state], because personal ties, voluntaristic constraints, and ostracism are no longer effective" (p. 100).⁵

In sharp contrast to this, the theoretical and empirical study presented in this paper indicates that given the social context within which trade was conducted in late medieval Europe, an economic institution able to support impersonal exchange characterized by separation between the *quid* and the *quo* over time and space was feasible despite the lack of appropriate legal contract enforcement. More importantly, diverse historical sources, such as charters, treaties, contracts, and court records from Italy, France, England, and Flanders, indicate that such an institution - the Community Responsibility System - indeed functioned from as early as the twelfth century.⁶ It was this institution that facilitated impersonal exchange during the late medieval Commercial Revolution long before the rise of an appropriate legal system was provided by the state.

The importance of social aspects to the operation of the Community Responsibility System (henceforth CRS) is also reflected in its process of decline. During the late thirteenth century, attempts were made throughout Europe to abolish the CRS. As an alternative, various legal procedures based on the principal of Individual Legal Responsibility were tried. This transition is among the many institutional and organizational changes that occurred during the late medieval period which economic historians attribute to two particular factors. Some economic historians, such as North and Thomas (1973), viewed these changes as reflecting the economies of scale made possible by the population increase. Others, such as Benson (1989), maintained that these changes reflected attempts by the emerging European states to undermine the operation of "spontaneous" order institutions which supported long-distance trade during the Commercial Revolution.⁷ It was an intentional maneuver aimed at filling the state coffers at the cost of economic efficiency since it eroded the economic and social links which made communities viable.

Yet, a theoretical and historical examination of the transition away from the CRS in Europe suggests a third factor. The transition away from the CRS may have been due to amplification of the system's deficiencies

⁵ See also: Weber (1981 [1927]) who argued that for the European "capitalistic form of industrial organization" to emerge, it "must be able to depend upon calculable adjudication and administration" of the law (p. 277). Similarly, Rosenberg and Birdzell (1986) argued that the establishment of a legal system able to facilitate exchange in the 18th century (p. 116) provided "an important element in the development of capitalist institutions" (p. 117).

⁶ An earlier generation of scholars have noted the operation of this system (e.g., Santini 1886; Arias 1901; Maitland and Bateson, 1901; Patourel, 1937) and this paper extensively relies on their important contributions. By and large, these scholars did not analyze the system but concentrated on the inter-community disputes which this system entailed. Hence they viewed it as an archaic and barbaric system - a relic of the past that hindered, rather than advanced, trade. For a more recent presentation of some of the system's elements, see Moore (1985).

⁷ For a useful survey of spontaneous order institutions, see Williamson (1985). For a recent game theoretical analysis of such institutions, see Sugden (1989).

brought about by the growth of trade and social and political developments within and among communities. Ironically then, it was the same processes that the CRS fostered - processes through which trade expanded and merchants' communities grew in size, number, and economic and social heterogeneity - that reduced the economic efficiency and the intra-community political viability of the CRS. Yet, the extent to which communities could have replaced the CRS with an alternative institution based on Individual Legal Responsibility depended on their political environment. The political system was such in England and France that a transition was possible, but not in politically fragmented Italy.

This paper relates to several recent studies in economic history which combined game theory and historical analysis to examine the institutional infrastructure underlying the late medieval Commercial Revolution. Greif (1989, 1993) analyzed the institution that governed the relations between merchants and their overseas agents among the Maghribi traders who operated mainly in the Muslim Mediterranean during the eleventh-century. Greif (1994) provided a comparative study of eleventh and twelfth century institutions among the Maghribi and Genoese traders, and the inter-relations with their cultures and societal organizations. Greif, Milgrom, and Weingast (1994) examined how the institution of the Merchant Guild secured alien merchants' property rights despite the ability of rulers to abuse them using their coercive power.

Two papers, Benson (1989) and Milgrom, North, and Weingast (1990), are directly concerned with institutions that supported exchange characterized by separation between the *quid* and the *quo* among merchants who did not expect to interact frequently. In particular, the latter paper proposed that during the late medieval period a Merchant Law System enabled impersonal exchange by providing the appropriate information and generating the appropriate incentives. Their explicit game theoretical analysis indicated how a local legal system, without any coercive power but with a monopoly over the ability to verify merchants' past actions and store and communicate information, could ensure contract enforcement in impersonal exchange. It did so by controlling the information required for a multilateral reputation mechanism among the merchants. Thus, they argued (although without conducting an appropriate historical inquiry) that impersonal exchange at the Champagne Fairs (the central trading fairs in Europe during the Commercial Revolution) was possible because the local court functioned as a Merchant Law System.

This paper proceeds as follows. Section I discusses the issue of impersonal exchange during the late medieval period. Section II presents a theory of the CRS. Section III utilizes the insights of the theoretical analysis, as well as information from contracts, court records, charters, and royal and community regulations, to evaluate the extent to which a CRS indeed functioned in Europe during that time. Section IV examines, theoretically and historically, the deficiency of the CRS and attempted transitions to an alternative system based on individual responsibility. Conclusions follow.

I. On the Nature of 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 markets merchants provided and received credit, bought and sold through contracts for future delivery, and ensured the cargo they shipped over the sea.⁸ While we can not qualitatively measure the efficiency contribution of such exchange relations, their contributions has arguably been great. The eminent historian of the Commercial Revolution, Lopez (1976) has viewed credit as necessary for commercial expansion to occur 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" (p. 72).

The historical records also indicates the identity of the individuals who enter into exchange characterized by a separation between the *quid* and the *quo* over time and space during the Commercial Revolution. Such exchange was often conducted among individuals who lived in close proximity to each other. Herman Van der Vee (1977), for example, has noted that exchange relations characterized by a separation between the *quid* and the *quo* were frequently established among merchants and their local consumers in Europe during the later middle ages. "Consumer credit underwent great expansion in the local economy" and "merchants from the town or country regularly bought up agricultural produce from the farmers before it had been harvested against partial or complete cash payment." At the same time, "farmers and workers received credit guaranteed by their future harvest or future labor output" (p. 300).

It is more intriguing to note, however, that exchange characterized by a separation between the *quid* and the *quo* was also established from as early as the twelfth century among merchants who did not live in close proximity to each other. For example, around the middle of the century traders from Asti regularly sold on credit Northern textiles imported from the Champagne fairs to Genoese traders (Reynolds 1929, 1930, 1931; Face 1958). Credit arrangements among individuals from other localities are frequently mentioned in Genoa's historical records. In 1190, for example, two Genoese traders, Bonifacius de Volta and Nicola Mallonus, bought goods for 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

⁸ For a description of these developments, see, for example, Lopez and Raymond (1955), pp. 157-238; de Roover (1963), pp. 42-118; and Postan (1973).

Lucca.⁹ Credit transactions among individuals from distant localities were not confined to Italy during this time. Such transactions were common in England during the twelfth and thirteenth centuries among English merchants from different localities and among English merchants and French, Flemish, and German traders.¹⁰

Similarly, contracts for future delivery among individuals from distant localities were common in Italy, England and France. For example, in 1191, a Genoese merchant named Ugo Mallonus bought, from a Pavian and a Roman 5 bales of fustian of Pavia at 40 pieces per bale, including 13 vermilion, 6 green, the rest brown, and contracted to buy 3 more bales at mid-Lent and 2 more bales at Easter. 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.¹¹

Contract enforceability is necessary for any exchange but the necessity of enforcement is particularly important in exchange characterized by separation between the *quid* and the *quo*. In the absence of appropriate institutions, the best a borrower, for example, can do after obtaining a loan is to not repay 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 over 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 *ex ante* commit 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 that enabled impersonal exchange? Or was exchange confined to personal exchange? Given the fragility of the available historical evidence, we can not address this question by tracing the exchange relations of individual merchants over time. Hence, to examine the extent to which impersonal exchange was feasible in per-modern Europe one has to determine whether an institution that enabled impersonal exchange functioned during this time.

In the early days of the period under consideration there was no legal system in Europe that could have effectively supported impersonal exchange among individuals from distant localities. Even within a relatively

⁹ Obertus Scriba (1190), No. 669 and see also Nos. 138, 139. Lanfranco Scriba (1952), vol. 1, No. 524, p. 234.)

¹⁰ E.g., Calendar of the Patent Rolls Preserved in the Public Record Office. 1266-1272, p. 20. English Historical Documents, vol. II, pp. 1012-3. Postan (1973).

¹¹ Ugo: Guglielmo Cassinese (1190-2), no. 250. With respect to England and France, see Moore (1985), and Verlinden (1963). Toward the end of the thirteenth century Bruges became the main center for trade in products.

large political unit (such as England), there was no legal system that could support, at low cost the enforcement required for such exchange.¹² Local courts that could supervise and enforce contracts executed in the areas under their authority existed throughout Europe. Yet, such local courts were not, by and large, unbiased agents of a central legal authority. Rather, they were the embodiment of local interests and are known to have been biased in their judgments against foreigners.¹³ Such courts were probably effective in providing the contract enforcement required for exchange among individuals present in the (limited) territorial area over which they had legal jurisdiction. Their ability to enforce contract among individuals who lived in their jurisdiction was probably facilitated by the types of informal contract enforcement institutions that often emerge among individuals who live in close proximity.¹⁴ Yet, such local formal and informal contract enforcement institutions could not govern impersonal exchange characterized by separation between the *quid* and the *quo* among individuals who lived far away from each other. Furthermore, during the late medieval period there were no alternative legal systems in Europe that could support such exchange.

The lack of a legal system that could have supported impersonal exchange characterized by separation between the *quid* and the *quo* among merchants from distance localities led to the common perception within economic history that prior to the rise of the state, such exchange was not feasible. Yet, this assertion ignores the observation that late medieval trade transpired in a particular social context, namely, that of communities. Trade was not conducted among individuals without any social affiliation. On the contrary, it transpired among individuals with particular community affiliations.

Evidence of the fact that long-distance traders were identified as members of a particular community can be found in the many commercial contracts that survived from the late medieval period. Since during this period last names were not yet common among non-nobles, individuals often had surnames or nicknames indicating their profession, place of origin, particular features, etc. In contracts related to long distance trade it is common to find merchants whose surnames or nicknames reflect their places of origin.¹⁵ Furthermore, such contracts were signed in the presence of witnesses whose name were registered on the contract. It is common to find that

¹² Plucknett (1949), p. 142; Ashburner (1909); Postan (1973); and the information contained in Select Cases Concerning the Law Merchant, A.D. 1239-1633. 2: Central Courts.

¹³ E.g., Hanawalt (1974).

¹⁴ Ellickson (1991) has argued, and provided some empirical support, that communities develop welfare-maximizing norms supported by informal contract enforcement institutions. For analysis of such informal contract enforcement institutions among merchants, see Greif (1989, 1993), Bernstein (1992), Clay (1997).

¹⁵ Emery (1952) and Lopez (1954).

merchants from one community witnessed a contract that a member of their community entered into when they were abroad, indicating close association among them.

The recognition of ones' community of origin was probably facilitated by the relatively low level of social and cultural integration that prevailed during the medieval period. National languages, for example, were not yet developed and distinct cities and small regions still had their own peculiar linguistic characteristics. Furthermore, communities provided important part of the organizational framework associated with long-distance trade. While this reflects their importance in trade to also indicates a mechanism that facilitated learning about one's community. For example, at the Champagne Fairs various merchant communities had permanent representation, scribes, and even courts of law. Merchants from a particular community often traveled abroad together where they lived and traded from their own compound. The organization of the German merchants who frequented the large international emporium in the city Bruges was based on the merchants' home towns and regions. Genoa and Venice had their own quarters in Constantinople, while the Flemish merchants at the Boston Fair had lived in the same quarter.¹⁶

As further discussed below, the communities with which merchants were identified and which provided the organizational framework within which long-distance trade was conducted assumed various forms. The most common ones were a home town, a borough, and merchant guild. In any case, all these communities seem to have shared a particular feature, namely, that the nature of their members' (social, economic, or legal) relations were such that the community had the ability to impose punishment on each of them. This ability, in and by itself, reflects the broader social and legal environment of the period. The economic and social cost of leaving one's community were relatively high.

Is it theoretically possible that the identification of individual merchants with particular communities and the associated intra-community contract enforcement institutions were utilized in late medieval Europe to support inter-community impersonal exchange? Methodologically, to address this question the next section develops a repeated game model of exchange characterized by separation between the *quid* and the *quo*. It enables exploring the factors constraining impersonal exchange and the role of communities in overcoming these constraints.

II. A Theory of the Community Responsibility System

Theoretically, communities with intra-community contract enforcement institutions could have supported inter-community impersonal exchange. To highlight the function of the community, the analysis

¹⁶ E.g., Verlinden (1979) p. 131 (the Champaign fairs); Greif, Milgrom, and Weingast (1994).

begins by examining the assumptions required to enable impersonal exchange when there are no communities or legal contract enforcement. It then examines the more realistic model satisfying only the sufficient conditions required for a legal system to support impersonal exchange. The examination reveals that these conditions are also sufficient for communities to support impersonal exchange. Without loss of generality, the discussion concentrates on exchange in which credit is provided for trading and for ease of exposition, technical details are not presented.

The theory of repeated game suggests that exchange characterized by separation between the *quid* and the *quo* may be possible even in the absence of legal contract enforceability among individuals who expect to interact only once.¹⁷ When profitable exchange can be repeated, the fear of retaliation (the fear of losing future gains from exchange) may prevent cheating. To examine the extent to which expectations for retaliation can support exchange consider, the following simple model.

Consider an economy in which there are lenders and borrowers. Each period or stage game is divided into 2 sub-periods. In the first sub-period each borrower has to decide whether to be randomly matched with a lender or not. Borrowers who choose to be randomly matched will never be matched again with the same lender.¹⁸ A lender who was matched with a borrower can decide whether to lend (a finite amount) or not.¹⁹ A borrower to whom a loan was made travels away to trade and in the second sub-period can decide whether to repay his loan or not. One's gain from exchange or defaulting in a particular period is consumed only after the following period. Lending is efficient and profitable to both parties conditional on the borrower paying his debt. In other words (ignoring the process through which the expected gain from each loan is divided), the division of gains from lending and trading is such that it is profitable for a lender to lend and a borrower to borrow if the loan will be repaid and the gains divided as agreed upon. If a loan was made and not repaid, however, the lender is worse off than he would have been had he not made the loan. Furthermore, since this lender lost his capital he is unable to furnish loans in the future. Note that this (one-sided prisoners' dilemma game) is characterized by separation over time and space between the *quid* and the *quo*.

If this game is repeated once, there is no sub-game perfect equilibrium in which lending occurs. Hence, efficient exchange is not feasible. This is the case because the best a borrower can do *ex post* if a loan was given is to not repay it. Anticipating *ex-ante* that this would be the case, a lender would not furnish a loan. However,

¹⁷ For survey of the relevant literature, see Fudenberg and Tirole (1991).

¹⁸ See Townsend (1981) for the appropriate specification.

¹⁹ For simplicity's sake, it is assumed that no matter how many borrowers decide to travel, each is matched with a lender. Random matching is assumed to capture the impersonal aspect of exchange.

the following are sufficient conditions for exchange to be possible: (1) The game is repeated infinite number of periods, (2) borrowers have an identity, a “label” that is known to all the lenders, and (3) the history of the game is common knowledge, namely, each player’s past actions are known to all.

When these conditions are satisfied, there is sub-game perfect equilibrium (SGPE) which enables exchange. Specifically, consider the following strategy combination: a borrower chooses to be randomly matched but repays if and only if he has never cheated a lender before, while a lender provides a loan only to a borrower who has never defaulted on a loan. This strategy combination is a SGPE if a borrower is sufficiently patient or, for a given time discount factor, if his (per-period) gain from exchange is high enough. A borrower is induced not to default *ex post* by the lenders’ threat that if he defaults he will not be able to borrow in the future. The lenders’ threat is credible since they expect a borrower who cheated once to cheat again, and this indeed is a cheater’s best response given the lenders’ strategy. Expecting *ex ante* that this will be the case, the lenders will lend.²⁰

Does the above analysis indicate that impersonal exchange is feasible given the above conditions? While the answer should seemingly be to the affirmative, this is not the case. It basically places identity at the center of the analysis. Exchange with a borrower who cheated in the past is not feasible despite the inherent profitability of the exchange because of the identity of that particular borrower. In other words, it indicates that personal exchange - in which a borrower’s identity as captured by his past actions - is feasible. It does not indicate, however, the impersonal exchange is possible.²¹ Could communities have relaxed this constraints and enable exchange without the need to link one’s identity to one’s ability to exchange?

Furthermore, the above model is inappropriate departing point for examining the role of communities in fostering impersonal exchange since it is base on the above three unrealistic assumptions. Medieval traders did not have an infinite life-span. Yet, if borrowers have a finite horizon, it is optimal for them to default in their last period. Anticipating this, the lenders would not lend in the last period, implying that borrowers would find it optimal to default in the period before the last. Yet, expecting default, the lenders would not lend in this period

²⁰ For a formal exposition of such a multilateral reputation mechanism, see Milgrom, North, and Weingast (1990) and Greif, Milgrom, and Weingast (1994) for the case when the history of the game is known to all players.

²¹ Kandori (1992) and Ellison (1994) examined the operation of such mechanisms (in PD games) when each player knows only his private history. Exchange can be supported under rather restrictive conditions by imposing a general punishment, namely, on those who defaulted and those who did not. In any case, their analysis does not hold when players have a finite life span as appropriate to assume and is assumed below.

either. Carrying this logic further indicates that lending would not be provided in any period.²² Similarly, a merchant's identity may have been known to his exchange partners in each particular period but could not have been easily transmitted to other merchants in the age prior to last names, passports, and driver licences. Finally, past conduct was private information.

Hence, to examine the potential role of communities in fostering impersonal exchange it may be appropriate to alter the above model by dropping these unrealistic assumptions and replace them with the assumptions that are sufficient for a court to be able to support impersonal exchange. Accordingly, assume that while the number of borrowers each period is constant, each of them lives for only a finite number of periods. Each borrower plays the above stage game each period up to his last period when he "retires" and does not trade. Furthermore, assume that a borrower's identity is known to the parties to the exchange, and that past actions are private information although they can be verifiable by a third party. Note that in this model there is no equilibrium in which lending occurs. Lenders' finite life-span is sufficient for this result. Yet, as discussed below, expanding the model to include communities implies that an equilibrium with impersonal lending does exist.

To introduce communities in the analysis assume that all borrowers are members of community B while all the lenders are members of community L. (The analysis holds if there are many borrowers' communities but introducing many lenders' communities is more problematic as discussed below.) Apart from providing a community label to each borrower, a community is conceptualized as having two features. A "territory" and an intra-community contract enforcement institution that can impose a punishment or abuse the property rights of both a community member and any individual present in the community's territory. While the following analysis holds whether a community's enforcement institution is formal or informal, this institution is referred below as a "court." Denote the lenders' court by LC and the borrowers' court by BC. The second feature of a community is that its court have a payoff function which is the sum of the payoff functions of its (living) members. In other words, a community aims at maximizing the sum of the lifetime utilities of its constituting members²³.

²² Telser (1980) pointed out that infinite horizon games are conceptually identical to finite horizon games with an uncertain number of periods. For this to be the case, however, the probability that the game will end in each period should be constant over time. Yet, this condition does not hold with respect to the uncertainty associated with human lives. For how the finite horizon problem was mitigated in intra-community agency relations during the late medieval period, see Greif (1989, 1993).

²³ This model relates to two lines of work in game theory. Works on games between a long-lived player and sequence of short-lived players, and works on games with overlapping generations of players. For a survey, see Fudenberg and Tirole (1991), pp. 168-72.

While the two latter aspects of the above conceptualization of a community may be intuitively appealing, they are, in a sense, an equilibrium outcome.²⁴ Given the lenders' equilibrium strategies that enable impersonal exchange, it is optimal for every (non-retired) borrower that intra-community contract enforcement institution with the above payoff would be established by the community. In other words, had the game been extended to enable in the first period of the game for members of each community to decide whether to establish such court or not, the only equilibrium entailing impersonal exchange is the one in which the communities establish courts.

In addition to the actions available to borrowers and lenders in the previous game, in this game borrowers now have to travel to the lenders' community to be matched and must return there to pay their debts. Furthermore, in each second sub-period each of the lenders can complain if he was not paid, the LC can confiscate the goods of any and all borrowers present in the lenders' community, verify whether or not a default occurred, and apply to the BC to demand compensation. If compensation is received, the LC can distribute it in any manner among the lenders. In each first sub-period, the BC can verify any complaint about defaulting, and can decide whether to impose a punishment on any borrower, to confiscate any borrower's property, and to furnish a particular compensation to the LC.

Under mild conditions, impersonal exchange can be sustained in this game as a SGPE outcome.²⁵ The conditions are that (1) the borrowers' time discount factor and the amount the LC can confiscate are sufficiently high relative to the amount defaulted upon and the gains to the borrowers from future trade and (2) that the gains for the LC from confiscating the goods of all the borrowers present in the lenders' community are lower relative to the present value of future gains of providing loans.²⁶ When these conditions hold, there is an equilibrium in which each borrower is motivated not to default by the expectation of punishment by the BC. The BC is motivated to punish one who defaulted because a failure to do so implies the loss of confiscated goods and all future gains from exchange. The LC verifies any complaints, confiscates goods, demands compensation if default occurred and distributes the proceedings to the lender who was cheated. The LC is motivated to do so because otherwise a cheated lender would not complain, leading borrowers to default and hence reducing the LC's payoff. Thus, each lender, knowing that the best a borrower can do is to pay, finds it optimal to lend.

²⁴ Examining the case in which there are multiple lenders' communities is more complicated and is left for future work.

²⁵ Note that if the borrowers were members of several communities, exchange would have been impersonal up to one's community label.

²⁶ Note that the game specification was such that the punishment the BC could impose on a borrower is at least as high as his gains from defaulting.

Specifically, if the above conditions hold, exchange that is impersonal up to one's community affiliation can be supported as an SGPE outcome by the following strategy combination: A borrower travels if and only if the LC never confiscated goods when a default did not happen, borrows if given a loan, and returns to pay his debt if and only if the lenders' strategy calls for complaint following a default and as long as the BC has not refused to pay a compensation. A lender lends as long as the BC has not refused to pay a compensation and complains if cheated. The LC verifies any complaint and, if and only if it is a valid complaint, confiscates the goods of the borrowers present in the lenders' community, and demands a compensation from the BC equal to the present value of the cost imposed on the lender due to the default. If compensation was given, the LC then advances it to the lender who was cheated, otherwise it confiscates the goods of borrowers until equivalent compensation is obtained. Finally, the LC confiscate the goods of all borrowers in its territory if it ever confiscated goods although no default occurred.

The BC verifies any complaint and, if and only if the complaint is valid, confiscates the defaulter's goods and pays a compensation not higher than the present value of the cost imposed on the lender due to the default. To finance the compensation the BC utilizes the defaulters' confiscated goods and any additional sum it receives from confiscating goods in an equal manner from all the other borrowers. Finally, it imposes punishment on a borrower who defaulted which erases all the utility gains from defaulting.

Hence, theoretically, the social context within which late medieval trade was conducted could have enabled inter-community impersonal exchange despite the absence of a state supported, centralized legal system. Community affiliation that is known to lenders and community ability to inflict punishment based on limited inter-community social mobility provides the foundations for the operation of an economic institution, the Community Responsibility System. The CRS - by holding the entire community responsible for a default of one of its members - provides the incentives required to conduct exchange that is impersonal up to one's community affiliation. When exchange is governed by the CRS, in considering whether to enter a profitable exchange relations one does not have to examine the private history of the other party. As long as that party's community affiliation is known and the above conditions hold, exchange can be conducted.

In addition, the CRS is effective despite the borrowers' finite life span and requires a relatively small amount of information to support impersonal exchange. The community internalizes the cost inflicted by the default of a borrower who is about to retire on the other borrowers thereby credibly committing to punish the one who defaulted. Although the community aggregates the payoffs only of its living members, each of whom has a finite life span, it becomes, de facto, a substitute for a single infinite horizon player. Furthermore, in terms of information the lenders neither had to know the identity of each borrower nor his past actions. Knowing a

lender's community label and having the courts able to verify past actions only in cases of default is sufficient for exchange.

Finally, note the symbiosis implied by the analysis between social structures and economic institutions. The CRS is an economic institution whose functioning is based on pre-existing social structure. The affiliation of individuals with particular communities and the knowledge of such affiliation enables the operation of the CRS. At the same time, this economic institution re-enforces the underlining social structure. It provides communities with additional incentives to define the boundaries between members and non-members, to devise mechanisms for collective decision making and collective action, and to establish intra-community contract enforcement institution.

Although the CRS could have enabled inter-community impersonal exchange during the late medieval period, this does not imply that such an institution for contract enforcement indeed functioned then. Did the CRS facilitate inter-community impersonal exchange in Western Europe during the late medieval Commercial Revolution? Do the historical records provide evidence consistent with its operation?

III. The Community Responsibility System: History

A systematic examination of the extent to which a Community Responsibility System, whose essence is captured by the above model, functioned in pre-modern Europe is yet to be undertaken. Yet, a preliminary investigation indicates its use was wide spread. In late medieval Europe, a CRS supported, inter-community, impersonal exchange and its use and explicit recognition by contemporaries is well reflected in cartularies, charters, court cases, and other sources from Italy, England, France and Flanders.

The earliest comprehensive cartulary available from late medieval Italy is that of a Genoese scribe named Giovanni Scriba. One of its entries, registered on July 22, 1164, reveals the operation of a CRS. This entry indicates that shortly prior to 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.²⁷ Another mention of the CRS in Italian sources of the twelfth century, however, indicates that the operation of the CRS was confined neither to the relations between Christian and Muslim traders nor to Genoa at that time. When the

²⁷ Giovanni Scriba, no. 1245.

Emperor of the Holy Roman Empire, Frederick Barbarossa, visited Bologna in 1155, the students of Bologna's famous law school expressed to him their dissatisfaction with the CRS because the city of Bologna was holding them liable for debts incurred by members of their original communities.²⁸

In twelfth century England the functioning of a CRS is reflected 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 these 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."²⁹ Such community responsibility could have even been invoked in response to illegal taxation imposed on Londoners. "If anyone has taken toll or custom from the citizens of London, then the citizens of London may take from the borough or village where toll or custom has been levied as much as the man of London gave for toll, and more also may be taken for a penalty."³⁰

The above charter focuses on the relations between members of different communities within the same political unit, namely, England. It explicitly defines one's relevant community as either his borough, village, or county. A distinct definition of one's community is found in the English legal documents inspected by Maitland (1889). They indicate that at times one's guild was considered to be the relevant community for the operation of the CRS. He noted that in England, in general, the ruling was that members of the same merchant guild, rather than residents of a particular borough, were held responsible for each other.³¹ "Every member of the guild ... guaranteed the debts contracted by every member in the way of his trade) is subsidiary liable for those debts. You are a member of the commonalty of X:) it is a course of action for me against you that A, who is your 'peer and parcener,' your 'fellow commoner,' [or] 'at scot and lot' with you, has contracted a trading debt with me and has not paid it" (p. 134).

The governance by the CRS of impersonal exchange between merchants from England and those from other political units is reflected in a statement made by King Edward in 1266. The king granted "to his burgesses

²⁸ Munz (1969), p. 77. By the fifteenth-century this procedure through which a European community provided a bond for the conduct of its members in the Muslim world had already been institutionalized. As an Arabic writer noted, "the consuls are the chiefs of the Franks and are hostages for each community. If anything happens in any community dishonoring to Islam, the consul is answerable." Lewis (1988), p. 76.

²⁹ English Historical Documents, vol. II, pp. 1012-3, and see discussion by Stubbs in Selected Charters and Other Illustrations of English Institutional History from the Earliest Times to the Reign of Edward the First, p. 128-30. In this charter Henry exempted the Londoners from the Community Responsibility System, an issue which is discussed below.

³⁰ English Historical Documents, vol. II, pp. 1012-3.

³¹ Notwithstanding the fact that in many towns the mercantile and municipal organizations were identical, since the merchant guild was the governing body of the borough.

and merchants of Lubeck, 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 failed to pay in whole or part and the said burgesses of Lubeck, 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."³² In some English boroughs, the process was simpler. Once a foreign creditor could establish that a member of the borough had failed to repay his debt the authorities paid him out of the borough's funds. Later they sought double indemnity from the debtor.³³

The operation of the CRS in Flanders around 1252 is reflected in statutes drawn up by Countess Margaret regarding the operation of foreign merchants visiting the Flanders fairs. Such foreign merchants were held liable for debts assumed by their peers. Yet, consistent with the interpretation that such liability was utilized to ensure punishing the one who defaulted, only a principal debtor or his guarantor could be imprisoned for debt. Other members of the defaulter's community could be punished only by confiscating their goods.³⁴

The historical records also indicate changes in the CRS that are consistent with the above theoretical framework. Although most of the above evidence on the operation of the CRS is explicit in stating that goods will be confiscated following default, theory indicates that confiscation is not always required for the CRS to enable impersonal exchange. If the value of future trade in the borrower's community is sufficiently high, confiscation is not required to support exchange. To see why this is the case, suppose for the moment that the LC can not confiscate goods. In this case, for the strategy combination discussed in the previous section to be an equilibrium strategy, the present value for the BC from future trade must be more than the gain from not compensating and retaining the amount defaulted upon. (Since otherwise the BC would prefer for trade to cease and hence forgo compensation.) This condition is more likely to hold if the number of borrowers is large or value of trade high, since then the present value of future trade will be higher as well, *ceteris paribus*. Conversely, this condition is not likely to hold when communities are small and the trade value low. When this condition does not hold confiscation may be required to support exchange since it increases the cost to the BC of not compensating. In deciding whether to compensate or not, the BC takes into account that a failure to compensate will also imply the loss of the confiscated goods. Hence confiscation enables exchange at a relatively low level of trade.

³² Calendar of the Patent Rolls Preserved in the Public Record Office. 1266-1272, p. 20.

³³ Plucknett (1949), p. 137.

³⁴ Verlinden (1979), p. 135.

Thus, theory implies that in the early stages of the Commercial Revolution when communities and their trade were relatively small, the CRS was likely to require actual confiscation. As time passed and trade increased, however, the value of future trade was likely to eliminate the need for actual confiscations. Consistent with this theoretical prediction, thirteenth century historical records from Italy and England reflect this transition. While the evidence regarding the operation of the CRS in Italy during the twelfth century mentioned above reflects the threat of confiscation, by the thirteenth century this was no longer the case. 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 40 days to leave town.³⁵ More than a century later, in 1325, a similar clause appears in a Florentine statute. It required the podestà to wait one month between declaring and acting upon any confiscation of goods under the CRS.³⁶

A similar transition to CRS, based on using the value of future trade rather than confiscation, is reflected in the history of the Champagne fairs which were the most important trade fairs in Europe during the thirteenth century. Consistent with the above theoretical analysis, the operation of a CRS there relied on the value of future trade rather than confiscation. In 1260 the wardens of the Champagne fairs had the right to pronounce a sentence of exclusion from the fairs following a default, and this exclusion extended to the compatriots of the defaulters if the judicial authorities of their own town or principality did not compel them to fulfil their obligations.³⁷ Interestingly, and consistent with the operation of the CRS, all the major trading communities had representation at the fairs by this time.

The discussion so far has assumed perfect information and verifiable actions. Reality, however, is characterized by commercial disputes in which both parties disagreed about whether contractual obligations were fulfilled or not. Furthermore, different courts (and even judges and juries in the same trial) can reach different conclusions based on the same evidence. Thus an empirical study of inter-community contract enforcement institutions can be potentially facilitated by examining implications more realistically.

Accordingly, consider the following alteration of the model. Assume that lender-borrower relations are characterized by imperfect monitoring) the lender receives a signal which is a random variable that depends on the action taken by the borrower. Particularly, even if cheating has not occurred, the lender's signal may indicate

³⁵ Santini (1886), p. 165.

³⁶ Santini (1886), pp. 168-72

³⁷ Verlinden (1963), p. 131. Most likely this right was held previously by the count and the ecclesiastical jurisdictions of the area.

he was cheated.³⁸ Further assume that each court also has an independent imperfect monitoring ability) if a dispute occurs each court receives a signal indicating whether cheating has occurred. Each court's signal is private, non-verifiable information and the signals are not perfectly correlated.³⁹ In other words, courts can sincerely disagree about whether cheating took place.

The observable implication of this imperfect monitoring is that an equilibrium in which impersonal exchange is conducted will be characterized by periods of inefficient inter-community "retaliations" following by "suspension" of the retaliation.⁴⁰ During retaliation, confiscation would occur and exchange would cease, imposing costs on both communities. Such retaliations, however, would last for a finite number of periods following which retaliation would be suspended and exchange would resume. Despite the fact that no cheating occurred (in the sense that a borrower chose not to pay), these costly periods of inefficient retaliations are required to provide the communities and the contracting individuals with the appropriate incentives. Specifically, the only possible equilibrium strategies (that enable exchange) specify confiscation and period(s) during which inter-community exchange ceases when the LC concludes that cheating occurred, while the BC concluded that cheating did not occur. Such periods of retaliation are required since 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 continuing confiscation 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. Thus, for inter-community impersonal exchange to be feasible despite imperfect monitoring, inefficiencies (in the form of forgone exchange) must be incurred by the communities.⁴¹

³⁸ 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.

³⁹ It is assumed, for simplicity, that if there is no dispute, the courts have perfect monitoring ability.

⁴⁰ This conclusion qualitatively holds even if disputes do not occur, but courts have imperfect monitoring ability and there is a probability that each court would reach a distinct conclusion following a complaint. This puts a limit on the penalty the LC can place on a lender whose complaint was found invalid. If the penalty is too high relative to the court's probability of making a mistake, lenders would not complain even if cheated, and hence exchange can not take place. Similarly, the BC can not place a penalty that is too high relative to the probability of a mistake because it would encourage lenders to file false claims. Hence, if borrowers have different time discount factors or distinct probabilities of being detected cheating, the resulting equilibrium can be characterized by a temporary break down of cooperation.

⁴¹ If retaliations reflect the inability of two communities to objectively verify the conflicting claims made by their citizens, rather than the communities' desire to gain compensation or to take revenge, costly retaliations are unavoidable. Even arbitration will not resolve the dispute since if unless it is costly enough, it will not provide the appropriate incentives. The LC, for example, would be induced to submit claims regarding disputes even if it was aware that they

Consistent with the theory, confiscation and retaliations following disputes and disagreements among courts are well reflected in the Italian historical records. Since disputes are more likely to occur when trade volume is high, it may not be surprising to find that retaliation became common as trade expanded (Arias, 1901). 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 of the late Lamberto, and by two Pisans who had posted a guarantee for them. The retaliation was granted by the podestà after the Commune of Pisa, which had been asked for restitution (according to the Statute), denied cooperation.⁴² Such denial, according to the above model, should occur when the two courts differed in their assessment of the situation. That contemporaries considered retaliation to be unavoidable in cases of disagreement among cohorts is reflected in various commercial treaties. As a matter of fact, in the treaty between Pisa and Florence signed in 1214, it is specified that retaliations would follow if the judges were unable to settle the dispute.⁴³

Disputes were not unique to Italy. A dispute may have been the reason in 1270 that "Gottschalk of Almain, burgher of Lynn, complains [in the court of St. Ives fair in England] of the communities of Ghent, Ppoeringen, Douai, Ypres, and Lisle as subjects of the countess of Flanders, for that whereas the said Gottschalk caused 14 sacks of wool worth seven score marks to be brought from the realm of England to Flanders to trade with it there and hosted this wool at the house of a certain Henry Thuroid on Sunday." The wool, however, was detained in Flanders and the loss amounted to about 200 marks. Yet, the countess of Flanders refused to provide justice. Accordingly, Gottschalk requested that the court confiscate the goods of members of the above communities present in the fair.⁴⁴

That retaliations were a calculated response aimed at fostering exchange rather than acts of revenge is suggested by attempts to confine them to only inter-community commercial matters. A 1325 statute from Florence, for example, explicitly enumerated the cases in which it was appropriate to grant retaliation. Retaliation could be granted in cases in which there were losses in currency or goods, damage to properties,

were groundless. Indeed, the only case known to me in which communities attempted to employ an arbitrator failed. In 1234, Volterra and San Gimignano submitted themselves to arbitration by the council of Florence in a futile attempt to end a state of retaliation between them. Santini (1886), p. 168. Note, however, that this arbitration was *ex post* and hence does not fit well the theoretical reasoning for arbitration's failure.

⁴² Santini (1886), p. 165.

⁴³ Santini (1886), pp. 166-8.

⁴⁴ Pro SC 2/178/93: 14 May 1270 published in Select Cases Concerning the Law Merchant: A.D. 1270-1638, 1: Local Courts, pp. 9-10.

extorted taxes, or personal detention. No retaliation was allowed in cases involving personal bodily offenses.⁴⁵ Further evidence that retaliations were a means to ensure proper incentives rather than compensation per-se is suggested by the observation that they indeed lasted for a finite number of periods and communities terminated a retaliation period by announcing a "suspension" without making it conditional on full compensation. Retaliations were not necessarily carried out until full compensation was achieved, but lasted long enough to inflict the appropriate cost to the other side exactly as predicted by the theory.⁴⁶

Theory also suggests that if the per-period cost of retaliation to two communities is high, they will invest more resources to resolve disputes without retaliation by acquiring better information and devoting more attention to the details. Indeed, as the trade of the Italian cities increased, the process through which retaliation could have been initiated became more circumspect and better regulated. This was accomplished by involving several authorities in the decision-making process. Initiating retaliation in Florence prior to 1250 was basically in the domain of the city administrator and his council. By 1325, however, in order to initiate a retaliation, the city administrator had to make two requests to the Commune to approve it and had to wait one month before enacting the retaliation. In 1415 the process was made even more difficult: a statute detailing the rules for retaliations was listed as being under the authority of consuls responsible for crafts and trade and no longer under the authority of the city's administrator. Yet, for this consuls to grant retaliations they had to be approved by two additional bodies, the Consuls of the Popolo and of the Commune.⁴⁷

The above theoretical and historical discussion emphasizes the association between communities and courts. Yet, fair courts which were not affiliated with a particular community also applied the principal of community responsibility during the late medieval period. An examination of fair court cases indicates that fair courts acted like the LC, holding one member of a community responsible for contractual obligations assumed by another member.⁴⁸ As mentioned above, the Champagne fairs held a community responsible for the contractual obligation of each of its member. English fairs acted similarly. For example, sometime in the 13th century in the fair of S. Botulph in England, a certain James complained that several merchants of Brussels had cheated him.

⁴⁵ Santini (1886).

⁴⁶ For a discussion of suspension, see Arias (1901), pp. 177-88. See also Santini (1886), p. 165.

⁴⁷ Santini (1886), pp. 168-72

⁴⁸ For many examples of the applications of community responsibility in courts at the English fairs, see Moore (1985). See above about the Champagne fairs.

After verifying his complaint, the fair bailiff confiscated wool belonging to the merchants from Brussels who were present at the fair.⁴⁹

How were fair courts motivated to apply the strategy of the LC and demand compensation, or the strategy of the BC and punish a person who defaulted on his obligations? The events in the fair of S. Botulph discussed above indicates that some motivation was provided by the fairs' courts legal obligations to the king or another lord. The bailiff of the fair neglected to adhere to the CRS. After a while 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." Accordingly, James entered a plea before the "lord king" of England. Yet, economic incentives may have provided an even more important motivation. The right to hold a fair court was granted by the lord who established the fair and running a successful fair and its court was a profitable business. (Courts were paid by the case.) Hence, those who held the rights to the fair and its court stood to gain from increasing the volume of trade at the fair under their jurisdiction. Guaranteeing inter-community impersonal contract enforcement increased the fair's attractiveness to alien merchants.

Note that such incentives might be diluted if the fair court was also a community court since, in that case, the community's own merchants might have to bear the cost of retaliation in case of dispute. Fairs which did not have an affiliated merchant community might have been better able to promote impersonal exchange. Interestingly, a salient feature of Europe's late medieval fairs is that the most important fairs did not have an affiliated community. This is true, at least with respect to the Champagne fairs, the important trade center of Bruges which replaced the Champagne fair as northern Europe's trade center, and the fair of St. Ives in England, one of the Island's most important fairs.

A CRS enabled, during the Commercial Revolution inter-community exchange that was impersonal up to one's community affiliation. Its novelty is that it took advantage of the existing social structure and the repeated nature of the interactions among members of a community to support inter-community impersonal exchange. Although information was limited and each community member had a finite life span, one's identification by others as a member of a particular community and the strategy this recognition enabled motivated each community member to establish and employ the intra-community enforcement institution to retaliate following a community member's default. Similar to an exchange supported by a centralized legal system, however, the extent to which the CRS could support impersonal exchange was limited by the ability to verify the past actions of people at a relatively low cost. Exchange in which conduct could not be verified by the

⁴⁹ Selected Cases Concerning the Law Merchant, vol, II, no. 7, pp. 11-12.

court, as was the case, for example, in agency relations, could not be governed by the CRS.⁵⁰ Yet, the CRS enabled inter-community impersonal exchange despite the absence of any legal authority with jurisdiction over the whole scope of the transaction. It was this institution that facilitated the Commercial Revolution by enabling contracts for future delivery and establishment of credit arrangements between individuals from various corners of Europe.

IV: Institutional Decline and Transition: From CRS to Individual Legal Responsibility

During the late medieval period the CRS enhanced efficiency by supporting impersonal exchange. Yet, the historical records of the late thirteenth century reflect attempts to abolish the system in Italy, France, and England. Indeed, at that time it was replaced, at least in England, by contract enforcement provided by the state and based on the concept of individual legal responsibility. What led to the decline of the CRS? The common explanation to similar organizational and institutional changes that occurred in the late medieval period is that they reflect either economies of scale associated with increasing population and trade (North and Thomas, 1973) or an attempt by the state to dominate communities and fill its own coffers (Benson, 1989). Yet, there is not much evidence to support either of these hypotheses with respect to the CRS. There is no measure of the economies of scale associated with either systems. Furthermore, the historical records do not reflect a return to the CRS following the great contraction of population and trade that occurred in first half of the fourteenth century and lasted for generations. Similarly, the mere fact transition away from the CRS was repeatedly attempted also in the politically fragmented Italy indicates that the rising centralized state was not necessarily the driving force behind this transition.

Hence, it is appropriate to consider whether the decline of the CRS reflects intra- and inter-community economic, social, and political processes that reduced the system's efficiency and undermined its intra-community political viability. Addressing these questions requires examining the cost and limitation of the CRS and its inter-relations with economic, social, and political processes inside and outside communities. The results of a preliminary examination point to the centrality of intra- and inter-community economic and social processes in leading to the decline of the CRS. These processes increased the system's inefficiency and decreased its intra-community political viability. Ironically, the process of economic growth, community expansion, and social integration which was facilitated by the CRS also led to its decline.

⁵⁰ Indeed, agency relations during the Commercial Revolution were governed by institutions other than the CRS. See, for example, Greif, (1989), (1993), (1994).

Theoretically, the first line of causation between the CRS's economic efficiency and social processes is due to the CRS's dependency on the extent to which one's community affiliation can be established. While the above analysis assumes that one's community affiliation is common knowledge, the extent to which this assumption is appropriate depends on the social context within which exchange occurred. If this social context is such that it is relatively easy to falsify and difficult to verify one's community, the less efficient is the CRS. In the early days of the Commercial Revolution, cities may have been sufficiently small and merchants' communities sufficiently few that falsification of one's community was difficult and verification of alleged affiliation was easy. Yet, the late medieval period was a time in which communities grew in size and number. 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 110,000.⁵¹ 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.⁵²

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. As Moore (1985) has noted, "this 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" (p. 119). Similarly, Plucknett (1949) 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" (pp. 137-8).

The ability of individuals to falsify their identity and the strategic use of this ability is well reflected in a case brought before the court of the St. Ives fair "on Wednesday next after the feast of St. John before the Latin Gate in the eight year of Abbot William," which happened to be the year 1275.⁵³ On that day William and Amice of Fleetbridge brought a complaint against Thomas Coventry of Leicester. But since he was not present at the fair, several of Thomas' other "peers and parceners," namely other merchant members of the community of Leicester, were summoned to the court. William and Amice claimed that Thomas owed Amice money for a sack of wool he bought three years ago from her (late) father, who lived in Leicester, and for which Thomas had been

⁵¹ Bairoch et al. (1988).

⁵² Beresford and Finberg (1973).

⁵³ The case: pro. SC 2/178/94: 8 May 1275. Parts of the document appeared in the Select Pleas in Manorial and Other Seigniorial Courts, Reigns of Henry III and Edward I. pp. 145-6, 155.

supposed to pay in the following year but had not. To prove their case, William and Amice produced a tally from the court of Leicester.⁵⁴

Leicester's merchants, who were present at the court and held responsible for the debt, denied, however, "any breach of the peace of the lord Abbot and the bailiffs or the fair and the damage of the said William and Amice" and were "ready to verify in such manner as the court shall award that the said Thomas Coventry was never peer or parcener of theirs or at scot and lot with them or a member of the commonality of Leicester." The court refused to accept their claim and judged in favor of William and Amice. Yet, shortly after these proceedings, Thomas of Coventry appeared at the fair and did not deny being from the commonality of Leicester. He did claim, however, that William and Amice had brought a false accusation against him, causing him "no small damage," most likely by the response of the merchants of Leicester whose goods were confiscated by the fair court. William and Amice could not defend themselves but claimed not to be under the jurisdiction of the court since they were from London.⁵⁵

Another link between social and economic processes and the efficiency of the CRS is due to the cost implied by the periods of costly retaliation. Such retaliations are unavoidable transaction cost required to support informal contract enforcement in a world characterized by limited *ex-post* verifiability of actions. Yet, as communities and their trade expand, so does the probability of dispute and hence retaliations. Theoretically, the implied increase in cost, however, is more than proportional to the increase in volume of trade. This is the case because the possibility of retaliation increases the uncertainty associated with trade to all merchants. The above model abstracted away from this uncertainty, yet, the CRS implies that there is a positive probability that the goods of a (risk averse) merchant will be confiscated, he himself will be taken hostage, and his trade will be interrupted, even if he fulfilled all his contractual obligations. The courts' ability to confiscate goods only from some merchants - those present in their jurisdiction - but not from others, further increases the cost implied by this uncertainty. Whenever retaliation loom on the horizon, merchants are likely to attempt to ensure that their own goods will not be confiscated.

Indeed, Florence's historical records indicate that once a retaliation was expected, merchants of the communities involved would refrain from trading in each others' cities, while merchants who permanently lived in the other communities would leave their residences with their merchandise.⁵⁶ Communities attempted to

⁵⁴ On the tally and its use, see Select Pleas in Manorial and Other Seigniorial Courts, Reigns of Henry III and Edward I, p. 133.

⁵⁵ See below regarding the exception of London from the CRS.

⁵⁶ For this behavior and its costs in Italy, see Arias (1901), pp. 156-8.

reduce the inefficiency associated with these costs by agreeing to restrict the penalty that could be imposed on a particular individual or allocate the costs more evenly. In 1251, Genoa contracted with Florence to warn its merchants at least two months prior to a retaliation so that Florentine merchants could leave Genoa in an orderly manner.⁵⁷ After trade expanded sufficiently to enable the CRS to function without confiscation, taxes on members of one community were used by another to better allocate the costs of retaliation.⁵⁸ Statutes issued by Countess Margaret in 1252 regarding foreign merchants visiting the fairs of Flanders ruled that only a debtor or his guarantors could be imprisoned for debt. Only goods could be confiscated from other members of the debtor's community.⁵⁹ Yet, the uncertainty implied by the CRS could not be completely avoided and as size of communities increased, the cost of retaliation and uncertainty increased by more.

There is, however, another link between community's size and the inefficiency associated with the CRS that causes the CRS's inefficiency to increase by more than community's size. The CRS's intensifies the adverse selection problem associated with credit financing. It provides insufficient incentives to lenders to examine the creditworthiness of borrowers and the extent to which incentives were insufficient increased in a community's size. Thus, a consequence of the CRS (which is not captured in the above simple model) is that it increased the probability that a borrower would not be able to pay his debt. Since retaliation often occurred following a borrower's bankruptcy, the CRS also increases the probability that a retaliation will occur.

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 mitigates this problem, but the CRS undermined such incentives. Under the CRS the future trade of all members of the borrower's community was the de facto collateral for the loan, and hence a lender had a relatively weak incentive to verify the borrower's ability to repay it.⁶⁰ In other words, credit financing under the CRS attracted borrowers with "bad" projects which were likely to fail, and thus were more likely than other projects to lead to retaliation.

While the above discussion indicates a theoretical possibility, in order to impact the lenders' behavior during the late medieval period they had to be aware that this possibility existed. Interestingly, lenders during

⁵⁷ Arias (1901), p. 52.

⁵⁸ For example, on 22 February, 1296, Florentine merchants petitioned their city to agree that Bologna would impose a toll (*pedaggio*) on Florentine goods entering Bologna in order to settle a retaliation. Arias (1901), p. 165.

⁵⁹ Verlinden (1979), p. 135.

⁶⁰ Almost one hundred years prior to the invention of Information Economics, Arias (1901), pp. 166, noticed this adverse effect of the Community Responsibility System.

this period clearly understood this adverse selection problem. On February 8, 1281, several cities in Tuscany agreed not to retaliate against each other. In announcing this agreement to their merchants, the authorities stated that the merchants should start paying more attention to the personal creditworthiness of merchants from the other towns they would be dealing with. This extra precaution was required, it was argued, since from now on "*a chui dato, a colui rechesto*" (that is, "to whom it is given, to him it will be asked") because retaliation would not be permitted.⁶¹

Theoretically, communities could have attempted to mitigate this adverse selection problem by either increasing the cost of defaulting to a borrower who took a risky venture or increasing the cost of default to a lender.⁶² Indeed, late medieval communities took such actions but with a limited success. The increasing ease by which one could move from one city to another in the thirteenth century implies that, following bankruptcy, one could have escaped to another city. The extent to which this option was exercised and an attempt to curtail it is reflected in a treaty signed on April 7, 1279, among Florence, Genoa, and most of the other towns of Tuscany, Lombardia, Romana, and March Trevigiana. It established that merchants fleeing with money belonging to other people could be imprisoned in the territories of the towns who signed the treaty and there they would be kept until brought to justice.⁶³ In England, the authorities were usually unable to locate an individual who escaped from his place of residence.⁶⁴ Furthermore, 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.⁶⁵

Another way to mitigate the adverse selection problem is to provide a lender with better incentives to screen prospective borrowers. Had the LC been able to perfectly verify the claim that a particular borrower indeed went bankrupt and not demand confiscation in that case, the lender could have been provided with the appropriate incentives. Yet, medieval courts had limited ability to do this. Indeed, retaliation often occurred due

⁶¹ Arias (1901), pp. 166-7.

⁶² Note, however, that if these costs were raised too high, they would undermine the operation of the CRS and the incentive to trade.

⁶³ Arias (1901), p. 100.

⁶⁴ Plucknett (1949), p. 142. As late as the 17th and 18th century, "a felon could consider himself distinctly unlucky if he was captured by the authorities. Policing was left largely in the hands of the local community. The maxim was not efficiency, but financial economy, making the system of public order pay for itself. A king with no proper permanent army, who could not pay the members of his own household with regularity, was not likely to visualize or finance a proper police system" (Bellamy, 1973, p. 201).

⁶⁵ Jones (1979).

to bankruptcy and disputes over the distribution of the remaining funds among various borrowers. Hence, in Italy and England alike, the authorities gradually resorted to increasing the cost of default to the lender by demanding that prior to requesting justice from the legal authorities of his own community, a lender had to travel to the other community and make his case there. Only if justice were not provided, could he apply to his own community court requesting retaliation.

For example, the city of Cambridge received a charter and the right to establish a merchant guild as early as the middle of the twelfth century. Yet, only a charter given to the city by King Henry III in 1256 states that "our beloved burgesses of Cambridge ... may forever throughout the whole of our land and dominion have this franchise, namely that they themselves or their goods, wheresoever found in our dominion, shall not be arrested for any debt of which they shall not be the sureties of principal debtors, unless perchance the debtors shall be of their commonality and power and shall have to make satisfaction for their debts in whole or in part and the said burgesses shall have made default in justice to the creditors of the same debts and this can be reasonable proven."⁶⁶

The cost implied by the adverse selection problem depend, similar to the cost associated with falsification, on social factors. First, it depended on community size - since the larger a community is the more likely it is that a lender will be able to recover, at relatively low cost, a debt in case of default. Second, it depend on inter-community ease of mobility. The more advanced is the social and economic integration of a society and the more secured are life and property for aliens abroad, the more difficult it is for a community to discipline its own members.

Finally, to the extent that community growth implies increasing intra-community social and economic heterogeneity, it is likely to reduce the intra-community political viability of the CRS. Community growth and heterogeneity imply that some segment of the community bear the cost, but not the benefit, of the CRS. This segment of the community will then be motivated to act within the commune to abolish the CRS. For example, rich merchants gain less from the CRS than others since they already have the connections, reputation, and wealth required to conduct trade, based on personal rather than impersonal exchange, and with little reliance on credit. Yet, the CRS implies that they will have to bear the cost of the system, and perhaps an even higher cost, than those less-well-to-do merchants whose trade depend on the CRS. Similarly, the non-mercantile part of a community is likely to bear the cost implied by the absence of alien merchants in the community during retaliations without gaining much, or anything, from the CRS.

⁶⁶ Maitland and Bateson (1901), pp. 14-5.

Hence, while the CRS fostered inter-community economic interactions and facilitated the growth of trade, as well as growth in size, number, and heterogeneity of merchants' communities, theory suggests that these processes diminished the system's effectiveness, increased its economic costs, and undermined its political viability. Unfortunately, establishing quantitatively the extent to which this was the case seems impossible, but there is an indication that these costs were rising in the second half of the thirteenth century in England according to the Close Rolls. Debts could be registered in these chancery rolls, thereby placing the transaction under the jurisdiction of the Common Law. This implies that property and goods could have been placed as bond for repaying debts.⁶⁷ Registration, however, was costly and prior to 1271 few debts, if any, were enrolled each year. Their numbers rose substantially by 1271, however, just before (as discussed below) the CRS was abolished in England.⁶⁸

Yet, the historical records do reflect, consistent with the above theoretical considerations that wealthy traders and large communities attempted, in England and Italy alike, to be exempted or abolish the CRS and different segments of cities had distinct incentives with respect to the CRS. Moore (1985) examined cases brought before the court of St. Ives fair in England and noticed that in the second half of the thirteenth century there "was an increasing numbers of individuals ... able to respond to ... suits [related to the CRS] by producing royal licenses of immunity from prosecution for any debts except those for which they were principal debtors or pledges" (p.119). In England large communities sought an exemption from the CRS from the king. With about 25,000 residents, twelfth century London was the largest city in England and a large city by Western European standards of that time.⁶⁹ In 1133, Henry I declared that the citizens of London "shall appoint as sheriff from themselves whomever they may choose, and shall appoint from among themselves justice whomsoever they choose" and "no other shall be justice over the men of London." Indeed, as mentioned above, William and Amice claimed that they could not be judged at the St. Ives court. Yet, Londoners had the right to apply the principle of community responsibility to residents of other cities. "Let all debtors to the citizens of London discharge their debt, or prove in London that they do not owe them; and if they refuse either to pay or to come and make such

⁶⁷ See discussion in Moore (1985), p.120 n. 105.

⁶⁸ Close Rolls of the Reign of Henry III, 1227-1272. 14 Vols. London: His Majesty's Stationery Office, years 1256-1272. There is one entry for 1257; four for 1269; and 43 for 1271. For the high cost of a merchant of using the common law court, see Plucknett (1949), p. 137.

⁶⁹ Bairoch et. al. (1988), p. 33.

proof, then the citizens to whom the debts are due may take pledges within the city either from the borough, the village or the country in which the debtor lives."⁷⁰

Later, the king provided other large communities with various exemptions from the CRS. In Flanders, Ypres was the largest city and about twice the size of London. Indeed, King Henry III, sometime between 1225 and 1232, assured the merchants of Ypres that none of them "will be detained in England... nor will they be partitions for another's debts." Only the debtor, or those who made a pledge for him, would be liable for the debt. Yet, the King seemed to be aware of the need to induce the community of Ypres to ensure any merchant that he would receive justice if a complaint was brought against him. It was agreed that "if any aforesaid burger or merchant of Ypres were to offend the King or other men or merchants from England, or if a dispute were to arise between another man of his and a man from England, it will stand by law in the courts of the king by the king, or by his judges, or by his bailiffs in that place where the offense was committed for the purpose of amending the mistake and making proper payments."⁷¹

The historical records from Italy, reflect the reduction in the CRS intra-community political viability. Distinct incentives among various segments of Florence with respect to the CRS is reflected in an appeal made on 22 February, 1296, by some Florentine merchants to the authorities of the city regarding a retaliation with Bologna. These were merchants whose livelihood depended on being able to pass through Bologna. They proposed setting up a toll (pedaggio) to be levied almost exclusively on their goods, just to settle the retaliations in which they were probably not directly involved. It is likely that the rest of Florence did not care about settling the matter.⁷² Similar distinct incentives are reflected in Florence's fifteenth century regulations. In 1415 it was forbidden to retaliate against foreign rectors, officials, or against traders coming to Florence to sell edibles.⁷³ 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 reputation, they had a great deal to lose from retaliations. Indeed, once they secured political control over the city, they entered into a sequence of treaties aimed at moving Florence away from the CRS.⁷⁴

⁷⁰ English Historical Documents, vol. II, no. 270, pp. 1012-3.

⁷¹ Calendar of the Patent Rolls Preserved in the Public Records Office, 1232-1339, p. 460.

⁷² Arias (1901) p. 165.

⁷³ Santini (1886), pp. 168-72

⁷⁴ Arias (1901), pp. 170-6.

On April 9, 1279, the cities of Florence, Venice, Genoa, as well as most of the cities of Tuscany, Lombardy, Romagna, and Marca Trivigiana, agreed "that from this day forth nobody of the said city-states is able to be or should be, on behalf of another, detained or taken captive or disturbed, in person or goods, but it should be demanded of him alone to whom it should be given, or of him who by justice should be held." To enable impersonal inter-community exchange, however, it was also agreed that each town would imprison any merchant in its territory who was fleeing with others people's money and that his creditors would receive justice.⁷⁵ That most of Italy's large city-states also sought an end to the CRS in the second half of the thirteenth century suggests that by that time, the most important Italian communities sought to abolish the system.

The examination of the costs associated with the CRS, and the relationship between these costs, and social, economic, and political processes within and between communities, suggests that these processes were important factors in the decline of the CRS. In England, the state may have contributed to an increase in the ineffectiveness of the CRS by granting individuals and communities legal immunity from confiscation and retaliation. In doing so, however, the state seems to have been responding to demands reflecting processes within and between communities. The observation that the Italian city-states also attempted to move away from the CRS toward the end of the thirteenth century, strongly supports the view that the state was not the originator of this transition. Yet, the extent to which communities in Italy and England could have abolished the CRS did depend on the existence of a central state. In Italy, communities could not rely on a third party, a King, to provide them with an alternative institutions. Indeed, while the extent to which inter-community treaties to abolish the CRS in Italy to achieve their aim should still be examined empirically, retaliations did continue after the thirteenth century. This was not the case in England, where the state enabled the communities to abolish the CRS.

In 1275, King 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]." Such an individual should not "be distraint 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 The Statute of Westminster I did not establish any alternative institution for contract enforcement and the results) in terms of inability to contract) were apparently severe.⁷⁷ A later statute in 1283

⁷⁵ The Latin version of this treaty is contained in Arias (1901), pp. 400-404.

⁷⁶ English Historical Documents, Vol. III, p. 404.

⁷⁷ Although the merchants could have used, as mentioned above, the costly and time consuming common law court.

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."⁷⁸ Edward seems to have abolished the system, recognizing its cost, only to later realize its benefits.

The alternative contract enforcement institution established by Edward I may have been influenced by a similar institution that had been enacted in France. This conjecture gains some support from the observation that in England it was first established in the Channel Islands in 1279, and only later, in 1283, in the rest of England.⁷⁹ The Statute of Acton Burnell of 1283 established this alternative contract enforcement institution by enabling, though not requiring, a creditor and debtor to appear before the mayor of either London, York, or Bristol, acknowledge the debt, and have it registered in a roll. The creditor would then be given the debtor's bond sealed by a special royal seal kept by these mayors for this purpose. In case of default the creditor did not need to bring an action of debt, but could resort to immediate confiscation and selling of the chattels and divisible property that were placed as bond. Recovering the loan through a forced selling of the bond, if necessary, was the responsibility of the mayor or sheriff in whose jurisdiction the bond was to be found. If the proceedings from the bond were not sufficient to cover the debt, the debtor would be imprisoned.⁸⁰

Despite its intent, the Statute of Acton Burnell failed to provide an appropriate contract enforcement mechanism, and two years later, in 1285, the Statute of Merchants had altered some of its provisions because "merchant complained to the king that sheriffs misinterpreted his statute and sometimes by malice and by misinterpretation delayed the execution of the statute to the great detriment of the merchants."⁸¹ The provisions of this statute indicate the difficulties in providing the appropriate incentives to those who were supposed to administer the legal procedures established by the Statute of Acton Burnell. Among the provisions were the following: Instead of one administrator, two were required to produce a roll specifying a debt, one nominated by the king and the other by the local authorities. Two rolls specifying the bond had to be made, and after being sealed by the seal of the debtor, each would be held by another administrator. Forced sales were abolished and

⁷⁸ English Historical Documents, vol. III, p. 420

⁷⁹ See discussion in Patourel (1937), p. 97 who also refers to the work of Giry. 1925. Manuel de Diplomatie, Paris, pp. 649-52, 835-54, who discusses this institution in France.

⁸⁰ The Statute is published in English Historical Documents, vol. III, no. 54, pp. 420-2. For a discussion of this Statute and other relevant developments, see Plucknett (1949), pp. 138-50; Moore (1985), p. 120.

⁸¹ This statute appears in English Historical Documents, vol. III, no. 58, pp. 457-60.

the debtor imprisoned until the matter was settled, but he was given three months to enter any contract necessary to raise the money required for paying his debt. If he failed to do that, the Statute of Merchants and the Statute of Westminster II established that his chattels and his land could be handed over to the creditor in compensation. The land, however, could not be alienated, but the proceedings from the land could be used to pay the debt.⁸² Finally, the ability to register and seal contracts subject to this procedure would be made available to merchants in towns other than London, York, and Bristol, and in every fair.

The procedures established in England between 1283 and 1285 provided the basis for a contract enforcement mechanism that enabled impersonal exchange based on a central legal system and individual responsibility. The system did not mature overnight, and several improvements were made over the years to enhance its functioning. For example, in 1352, the common creditors were ranked with the crown insofar as imprisonment of the defaulted debtors were concerned, and outlawry was extended to debt and actions of account.⁸³ Yet, even as late as 1543, the authorities could not break into the locked house of a debtor who defaulted on his debt.⁸⁴ A contract enforcement institution based on individual responsibility, similar to the contract enforcement institution based on collective responsibility which it replaced, developed slowly.

Conclusions

A Community Responsibility System enabled exchange that was impersonal up to one's community affiliation in late medieval Europe. It took advantage of the existing social context, namely, the existence of communities, the relatively easy identification of one's community, and intra-community contract enforcement institutions that were effective despite their local nature because of the social and economic cost of inter-community mobility. These features of the medieval society were supplemented by the strategies that provided individuals and communities with the appropriate incentives. It enabled impersonal exchange despite the absence of the legal contract enforceability provided by a state. Furthermore, at least in England, the state itself attempted to further enhance the institution based on community responsibility by making its strategies the legal obligation and right of courts in communities and fairs.

⁸² For the Statute of Westminster II of 1285, see English Historical Documents, vol. III, no. 57, pp. 428-57 (and see in particular c. 18).

⁸³ Plucknett (1949), pp. 324-26, 343. Neither did the system enhance the ability to recover debt when the debtor was an alien and landless in England. See discussion in Moore, (1985), p. 121.

⁸⁴ Jones (1979), pp. 13-6.

While the preliminary historical examination presented above indicates that this contract enforcement institution facilitated impersonal exchange throughout Europe, it came with a price tag. It restricted exchange to members of identifiable communities and required local courts. Yet, the biggest cost it imposed was due to courts' imperfect monitoring ability. It led to periods of retaliation, increased the uncertainty of trade, and amplified the adverse selection problem associated with credit financing. Over time, various communities and legal authorities became aware of the origin of these costs and labored to contain them by increasing the accuracy of information, smoothing the uncertainty to individual merchants due to retaliation, and increasing the cost of bankruptcy to borrowers and lenders alike.

The growth of long distance trade and communities' size, number, and heterogeneity fostered by the CRS also reduced the system economic efficiency. These economic and social processes made it easier to falsify community affiliation, hindered verification of one's community, reduced the cost of escaping to another community for those who defaulted or went bankrupt, and increased the severity of the adverse selection problem. Furthermore, increasing diversity within communities implied that the cost of the CRS to communities or some segments in the community outweighed the benefit. By the late thirteenth century, communities were laboring to abolish the CRS and, where possible, the state stepped in to provide an alternative. The process through which individual legal responsibility came to dominate the modern legal system moved forward.

This study of a particular impersonal contract enforcement institution during the late medieval period reveals the importance of understanding the inter-relations between social, economic, and political factors in determining the set of feasible and actual economic institutions. It indicates that economic institutions can be based on and provide a positive reinforcement to a particular social structure. While the CRS was based on the existing, community-based social structure, it reinforced it by motivating the community members to clearly define their communal membership, to communicate it to the rest of the society, and to strengthen their intra-community contract enforcement institutions. At the same time, the dependency of the economic institution on its social foundations implies that social, as well as economic processes can erode the effectiveness and political viability of the economic institutions.

While similar conclusions had been reached in studies that examined contract enforcement within communities (e.g., Ellickson, 1991; Greif, 1989, 1993, 1994), the study of impersonal exchange reveals the importance of a particular aspect of social context. Previous economic formulations of communities modeled them as altering the set of actions available to members of the community. In sharp contrast, sociologists emphasize the cognitive aspects of communities - namely, that a community exists when individuals consider themselves and are considered by others as members of that community. The study of the CRS indicates the importance of incorporating this cognitive aspect in game theoretical analysis for comprehending the inter-

relations between the social context and economic institutions. For the CRS to function, the social structure - individuals' affiliation with particular communities - had to be recognized. Unless this is the case, impersonal, inter-community exchange is not feasible even if communities do exist.

There are many evidence to the operation of economic institutions that built on the existing social context to enable impersonal exchange in past and present non-European economies.⁸⁵ Yet, the extent of their contribution to past and present economic development, the exact forms of these institutions, and their evolution and interrelationships with political and legal institutions are yet to be explored. We do not know, for example, what implications distinct social processes associated with development in pre-modern Europe and developing countries have had on the ability of community enforcement institutions to enhance economic efficiency. Analyzing these institutions and their inter-relations with social structures in different historical episodes will lead the way to a comparative institutional investigation that may shed additional light on the evolutionary process of economic institutions and development.

⁸⁵ See Varian (1990), Besley and Coate (1995), Bouman (1995) regarding joint liability in credit markets in developing economies and Fairbank (1992, p. 177) regarding exchange in imperial China.

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