

**On the History of the Institutional Foundations of Impersonal Exchange:  
From Communal to Individual Responsibility in Pre-modern Europe**

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**Abstract**

Impersonal exchange is central to economic growth; yet, we know surprisingly little about the historical development of institutions that supported it. This paper utilizes historical evidence and game theory to present the Community Responsibility System (CRS) that supported impersonal exchange throughout Europe during the late Medieval period. The CRS supported exchange that was impersonal up to one's community affiliation despite merchants' finite life-spans, the cost and asymmetry of information, and the lack of impartial legal enforcement. At its center were merchants' communities which were organizations of overlapping merchants' cohorts. The behavior and expected behavior of communities and merchants caused each community to internalize the cost of one of its members cheating in inter-community exchange. Hence, each community was endogenously motivated to employ its partial enforcement institution to dispense impartial justice and punish a member merchant who cheated a non-member. A community's reputation served as a bond that enabled a merchant to commit to honesty in inter-community exchange despite his finite life-span, his partner's inability to verify his past actions, and the lack of impartial legal enforcement. The CRS declined during the late thirteenth century, and ironically, it was the processes the CRS fostered that reduced its economic efficiency and (intra-community) political viability. (JEL Classification: N0, N2, C7.)

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## Introduction:

This paper examines institutions that facilitated impersonal exchange during the late medieval Commercial Revolution. In this developmental epoch stretching from the eleventh to the fourteenth centuries, Mediterranean and European long-distance trade reemerged after an extended period of decline (e.g., Pirenne 1956; Lopez 1976). In many trade centers merchants from various parts of Europe, who seemed to have few personal and repeated relationships, entered into exchange characterized by separation between the *quid* and the *quo* over time and space, such as credit, contracts for future delivery, negotiable securities, and maritime insurance. The ability to conduct impersonal exchange enhances efficiency. But what were the institutions, if any, that enabled such exchange in the late medieval period? How could a creditor from one corner of Europe, for example, trust a debtor from another corner about whom he knew little and who could avoid interacting with him in the future to pay his debt? This paper considers the institutions that enabled impersonal exchange characterized by separation between the *quid* and the *quo* over time and space during the late medieval period. It argues that understanding these institutions requires studying how someone could have committed to fulfill his contractual obligations in such exchange despite his finite-life span, his partner's inability to directly verify his past conduct, and the lack of an impartial legal system with authority over the interacting individuals.

Combining historical evidence and insights from an overlapping generation, repeated game with imperfect monitoring, this paper presents the institution that facilitated impersonal exchange characterized by separation between the *quid* and the *quo* over time and space during the late medieval period. (Henceforth, I will refer to such exchange simply as impersonal exchange.) This institution - the Community Responsibility System (CRS) - functioned throughout Europe - in Italy, France, Germany, England, and Flanders - from as early as the twelfth century.<sup>1</sup> It enabled large-scale impersonal exchange despite the finite-life spans of merchants without requiring that a merchant verify his current

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<sup>1</sup> An earlier generation of scholars have noted the operation of this system (e.g., Santini 1886; Arias 1901; Maitland and Bateson 1901; Patourel 1937; Moore 1985). By and large, these scholars did not analyze the system and concentrated on the inter-community disputes that it entailed. Hence they viewed it as an archaic and barbaric system - a relic of the past that hindered, rather than advanced, trade.

partner's past actions and in the absence of an impartial legal system with authority over the interacting individuals.

At the center of the CRS were communities which were on-going organizations of overlapping merchants' cohorts. The community enabled impersonal exchange despite its members' finite life spans because the behavior and expected behavior of other communities and merchants induced it to internalize the cost of cheating imposed by one community-member merchant on the others. Hence, each community was endogenously motivated to utilize its community enforcement institutions to discipline a merchant member who cheated in inter-community exchange.

Thus, these community enforcement institutions included courts or tribunals with coercive powers that acted, on the equilibrium path, as dispensers of impartial justice. Unlike courts-of-law, however, their behavior neither reflected adherence to principles of justice nor incentives provided by a third party. Instead it reflects the incentives generated by the operation of an inter-community reputation mechanism which was possible because of, rather than despite the partiality of these community tribunals. These tribunals' concern with the ability of their merchant members to trade in the future induced them to dispense impartial justice. Finally, the CRS altered the information required to sustain impersonal exchange. On the equilibrium path, one did not have to know the past conduct of his current partner in order to exchange, only his partner's communal affiliation. The way in which inter-community trade was organized was aimed at facilitating the transfer of this information.

The theoretical importance of on-going organizations in inducing cooperation based on a reputation mechanism among agents with finite lives has been noted before. (E.g., Camerer 1986, Kreps 1990.) These, and the more empirically-oriented theoretical analyses of such organizations (e.g, Tadelis forthcoming), concentrated on either contract enforcement among members of the organization or on adverse selection. The CRS, however, highlights the importance of on-going organizations in providing contract enforcement in bilateral exchange among members of different organizations, as well as their role in reducing the information required for this exchange.

During the thirteenth century, the CRS was on a decline. It was gradually replaced by a system based on Individual Legal Responsibility. In Italy various city-states contracted to abolish the CRS and

replace it with individual legal contract responsibility. Why did the CRS decline? A theoretical and historical examination of the transition away from it suggests that the this decline reflects an amplification of the system's deficiencies brought about by the growth of trade, as well as social and political developments within and among communities. Ironically, 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 communities' ability to replace the CRS with an alternative institution based on Individual Legal Responsibility depended on their political environment. In England and France the political systems were conducive to such a transition but in politically fragmented Italy it was not the case.

This paper contributes to the growing literature that combines micro-theoretic and historical analyses to examine the historical development of institutions that supported market expansion during the late medieval period. This literature focused on institutions that supported long-distance trade by facilitating agency relationships (Greif 1989, 1993, 1994), fostering capital mobilization (Gonzalez de Lara 2000), and securing property rights abroad (Greif, Milgrom, and Weingast 1994). This paper adds to the literature by considering institutions that supported a different kind of transaction requiring distinct analytical focus. Previous works focused on *how* information about past conduct was distributed because they considered contract enforcement within relatively small groups. Contract enforcement among large numbers of traders not personally known to each other, could not have rested on the transmission of such information. Studying the CRS thus implies focusing on *what* information is to be transmitted. In the CRS, on the equilibrium path, the bulk of the information that was transmitted was regarding community affiliation rather than past conduct. Similarly, previous works focused on how either reputation or the use of the state's coercive power motivated behavior. Studying the CRS, however, requires examining the integration of the two. Finally, the contractual problems associated with finite life spans were marginal to the previous analyses but central to the CRS.<sup>2</sup>

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<sup>2</sup> A marginal aspect in Greif, et al. 1994, is the use of coercive power within the merchants' community in the context of a broader reputation-based institution that motivated rulers to respect their rights. Greif (1989, 1993) noted that inter-generational relationships among the Maghribi traders mitigated the finite horizon problem, while in Greif,

The focus on the content of the information transmitted on the equilibrium path, the combination of reputation and coercion, and the implications of individuals' finite life spans differentiate this study from the only other one that utilized game theory to study impersonal exchange during late medieval trade. Milgrom, North and Weingast (1990) have argued that merchant tribunals at the late medieval Champagne fairs can be analyzed as an institution which supported impersonal exchange over time. Their analysis concentrated on the tribunal's ability to activate a multilateral reputation mechanism by controlling information regarding past conduct, thereby highlighting the role of organizations in facilitating reputation mechanisms. This analysis, however, assumes that individuals have infinite life spans. Hence, it fails to provide a convincing account for an institution that facilitated impersonal exchange during this period.

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

## **1. Exchange Characterized by Separation between the *Quid* and the *Quo* during the Commercial Revolution**

The historical records indicate that exchange characterized by a separation between the *quid* and the *quo* over time and space was common in Western Europe during the late medieval Commercial Revolution, perhaps for the first time since the fall of the Roman Empire. In towns, fairs, and marketplaces, merchants provided and received credit, bought and sold through contracts for future

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Milgrom, and Weingast (1994) the player who could cheat was a ruler - a dynasty.

delivery, and insured the cargo they shipped over the sea.<sup>3</sup> While we cannot qualitatively measure the efficiency contribution of such exchange relations, their contributions were arguably great. Lopez (1976), the eminent historian of the Commercial Revolution, has viewed credit as a necessity for the occurrence of commercial expansion in a period with a monetary system based upon a limited supply of precious metal. The "take-off (of the Commercial Revolution) was fueled not by a massive input of cash, but by a closer collaboration of people using (commercial) credit" (p. 72).

The historical records also reflect the identity of the individuals who entered into exchange characterized by a separation between the *quid* and the *quo* over time and space during the Commercial Revolution. This exchange was often conducted among people who lived near each other. (E.g, Herman Van der Vee (1977), 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 near each other. For example, around the middle of the century traders from Asti regularly sold Northern textiles imported from the Champagne fairs on credit to Genoese traders (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 della Volta and Nicola Mallonus, bought goods from a Piacenzan merchant for 120 lira with one year to pay. On the 28th of March, 1210, Rubeus de Campo of Genoa paid a debt of one hundred marks sterling in London on behalf of Vivianus Jordanus from Lucca.<sup>4</sup> 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.<sup>5</sup>

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<sup>3</sup> 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).

<sup>4</sup> Obertus Scriba (1190), No. 669 and see also Nos. 138, 139. Lanfranco Scriba (1952), vol. 1, No. 524: 234.

<sup>5</sup> E.g., *Calendar of the Patent Rolls Preserved in the Public Record Office. 1266-1272: 20. English Historical Documents*, vol. II: 1012-3. Postan (1973).

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 another 2 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.<sup>6</sup>

Contract enforceability is necessary for any exchange but enforcement is particularly important in exchange characterized by separation between the *quid* and the *quo*. In the absence of appropriate institutions, a borrower, for example, can enrich himself after obtaining a loan by not repaying his debt. Expecting such behavior *ex post*, a borrower would not lend *ex ante*. Similarly, a merchant who is paid to deliver goods in the future will find it optimal to retain possession of these goods, implying that the buyer would not be willing to pay *ex ante*. Hence, exchange characterized by separation over time and space between the *quid* and the *quo* requires contract enforcement institutions that enable the transacting parties to *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 in which repeated interactions or family relationships mitigated the commitment problem? Given the available historical evidence, we cannot address this question by tracing the exchange relationships of individual merchants over time. Hence, to examine the extent to which impersonal exchange was possible in pre-modern Europe, one has to determine whether an institution that enabled it functioned then.

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<sup>6</sup> Ugo: Guglielmo Cassinese (1190-2), no. 250. With respect to England and France, see Moore (1985), and Verlinden (1979).

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 well-organized political unit (such as England), there was no legal system that could provide the required enforcement.<sup>7</sup> Local courts existed throughout Europe and they could supervise and enforce contracts executed in the areas under their authority. They had the ability to provide contract enforcement for exchange among individuals present in the (limited) territorial area over which they had legal jurisdiction. Yet, these 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 prejudiced in their judgments against foreigners. (E.g., Hanawalt 1974). Similarly, late medieval communities probably had informal contract enforcement institutions of the kind that often emerge among individuals who live in close proximity. Such local formal and informal contract enforcement institutions, however, could not govern impersonal exchange characterized by separation between the *quid* and the *quo* among individuals who lived far away from each other.

The absence of a legal system that could have supported impersonal exchange characterized by separation between the *quid* and the *quo* among merchants from distant localities led to the perception, common 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 actually occurred in the particular social context 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 (Emery 1952 and Lopez 1954). Furthermore, such contracts were signed in the

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<sup>7</sup> 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.*



presence of witnesses whose names were registered on the contract. It is common to find that merchants from one community witnessed a contract that a member of their community entered into when they were abroad, indicating their close association.

Individual merchants were identified with particular communities and these assumed various forms. The most common ones were a hometown, a borough, and a merchant guild. In any case, all these communities seem to have shared the particular feature that their members' (social, economic, or legal) relations were such that the community had the ability to impose punishment on each of them. This ability reflects the broader social and legal environment of the period. The economic and social costs of leaving one's community were relatively high.

Individual merchants were identified with communities that had enforcement mechanisms. Is it theoretically possible that this provided the foundation for an institution supporting the inter-community contract enforcement required for inter-community exchange characterized by distance between the *quid* and the *quo*? And if so, did such an institution prevail in late medieval Europe? To address the first question and to help address the second, the next section builds on game theory to explore the factors constraining impersonal exchange and the possible role of communities in overcoming these constraints.

## **2. The Community Responsibility System: Theory**

Theoretically, communities with partial enforcement institutions with jurisdiction within a limited territory could have supported inter-community impersonal exchange. To highlight the function of the community, the analysis begins by examining the necessary and sufficient conditions for impersonal exchange without communities or a legal system. It proceeds by elaborating on how communities and their intra-community, partial enforcement mechanisms could have supported impersonal exchange. For ease of exposition, technical details are suppressed.

Consider an economy in which there are  $N_L$  lenders and  $N_B$  borrowers who are engaged (WLOG) in credit transactions. Such exchange, as is generally the case, is best modeled as a one-sided prisoners' dilemma game (Greif 2000). Each borrower can decide whether to initiate exchange

with a lender (travel to trade) or not. Every borrower who initiates an exchange is matched with a lender ( $N_L > N_B$ ). A lender who was matched with a borrower can decide whether to lend (a finite amount) or not. The payoffs of a borrower who did not travel and a lender who did not lend are zero. A borrower who receives a loan can decide whether to repay it or not. Repaying yields the payoffs of  $i > 0$  to the lender and  $g > 0$  to the borrower. Not repaying, however, yields the payoffs of  $l \neq 0$  to the lender and  $G > g$  to the borrower where  $l + G \neq i + g$ . The above implies that lending is efficient and profitable to both parties, conditional on the borrower paying his debt, but the borrower is better off by not repaying than repaying.

To complete the above description of the game, we need to specify the number of periods each lender and borrower play, the matching process, and the information available to players. Not much should be said about the appropriate assumption regarding the number of periods. After all, if there is one thing we know for sure about medieval traders it is that their lives were finite and their probability of (naturally) dying increased with age. Hence, it seems correct to assume this and that in each period equal numbers of cohorts of borrowers and lenders die and a new one replaces them. A borrower plays the above stage game for  $T - 1$  periods. He “retires” and does not trade in period  $T$ .<sup>8</sup> The time discount factor is  $\delta$ . To examine if individuals can enter into impersonal exchange, assume for the moment that matching is random and all information is private, that is, a lender knows who cheated him in the past but can not transmit this information to others.

In this game, there is no sub-game perfect equilibrium with lending on the equilibrium path.<sup>9</sup> As is well known, the assumption of a finite life span is sufficient for this to be the case.<sup>10</sup> A borrower’s best response in period  $T-1$  is to not repay implying that the lender will find it best not to lend to begin with, and so the game unravels to the first period.

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<sup>8</sup> Works on games with overlapping generations of players are surveyed in Fudenberg and Tirole (1991) pp. 168-72.

<sup>9</sup> Because the game is OSPD, contagious equilibria (Kandori 1992, Ellison 1994) do not exist.

<sup>10</sup> Telser (1980) established that the equilibrium set in finite games with an uncertain date of termination is qualitatively equivalent to the equilibrium set in infinite horizon games only if the probability of termination is non-declining each period. This is clearly not the case among individuals.

To highlight the distinct hindrance of exchange implied by the finite horizon and private information considerations, however, consider the above game but assume that players have infinite life spans (and hence there is only one cohort of players). If we maintain the assumption of private information, there is no sub-game perfect equilibrium (SGPE) with lending on the equilibrium path because  $N_L > N_B$  and matching is random, implying that a lender who was cheated cannot impose a cost on the cheater by refusing to trade with him in the future. Ignoring the possibility of such personal retaliation reflects both theoretical and historical considerations. The focus of interest here is the ability to conduct impersonal exchange and hence we want to exclude personal retaliation. Furthermore, historically, the number of medieval traders was very large implying that the cost that one could have imposed on another by refusing to trade with him in the future was minor.<sup>11</sup>

If past conduct is public information, however, there can be a SGPE with lending on the equilibrium path. Specifically, it is straightforward to show that if borrowers' identities and past actions are common knowledge, for  $\delta \geq \frac{G + g}{G}$ , the following strategies constitute such a SGNE: a borrower chooses to travel, but repays if and only if he has never defaulted before; a lender lends only to a borrower who has never cheated before. In this case, a multilateral reputation mechanism can support impersonal exchange.

But how could a large group of merchants be informed about actions taken in bilateral exchange? The technological and strategic difficulties associated with transmitting information about cheaters without supporting institutions in medieval trade are rather obvious. To have this information be known would require transmitting the identity of a cheater in an age prior to last names, passports, driver's licences, and photographs. It would require motivating a cheated lender to inform enough other lenders about the transgression despite the high cost of information transmission in an age prior to printing, phones, faxes, and e-mail. And what would motivate a lender to bear this cost? If the above game captures the essence of the situation, a lender who was cheated would have no incentive to inform others about transgressions.

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<sup>11</sup> In the twelfth century, there were several thousand Genoese long-distance traders (Krueger 1957, 1962). Thousands of individuals crowded every major fair in England (Moore, 1985). It has been conjectured that the merchant class in Western Europe numbered in the hundreds of thousands by 1200 (Berman, 1983).

For a contract enforcement institution to enable impersonal exchange, it has to simultaneously mitigate the problems of merchants' finite life spans and information asymmetries. It must enable a borrower to commit to repay, although cheating is his best response in his old age. It has to help a lender verify the identity of a borrower he never met before so that a punishment can be inflicted if necessary. And, the institution has to provide the appropriate incentives for acquiring information and punishing cheaters.

To see how communities can underpin an institution that achieves the above, consider the following alteration of the basic model. There are two communities.<sup>12</sup> All borrowers are members of community B, and all lenders are members of community L. Denote a generic lender and buyer, by  $A_L$  and  $A_B$  respectively. Because a community is composed of overlapping generations of individuals, they exist forever. (Having a fix probability that a community will cease to exist each period does not change the results.) A community is conceptualized as having two features: a territory and an enforcement institution effective within this territory. All lending and payment of loans are made in the lenders' territory. Denote the lenders' enforcement institution LC and the borrowers' enforcement institutions BC. Before considering the courts' action sets, consider their objective function and payoffs.

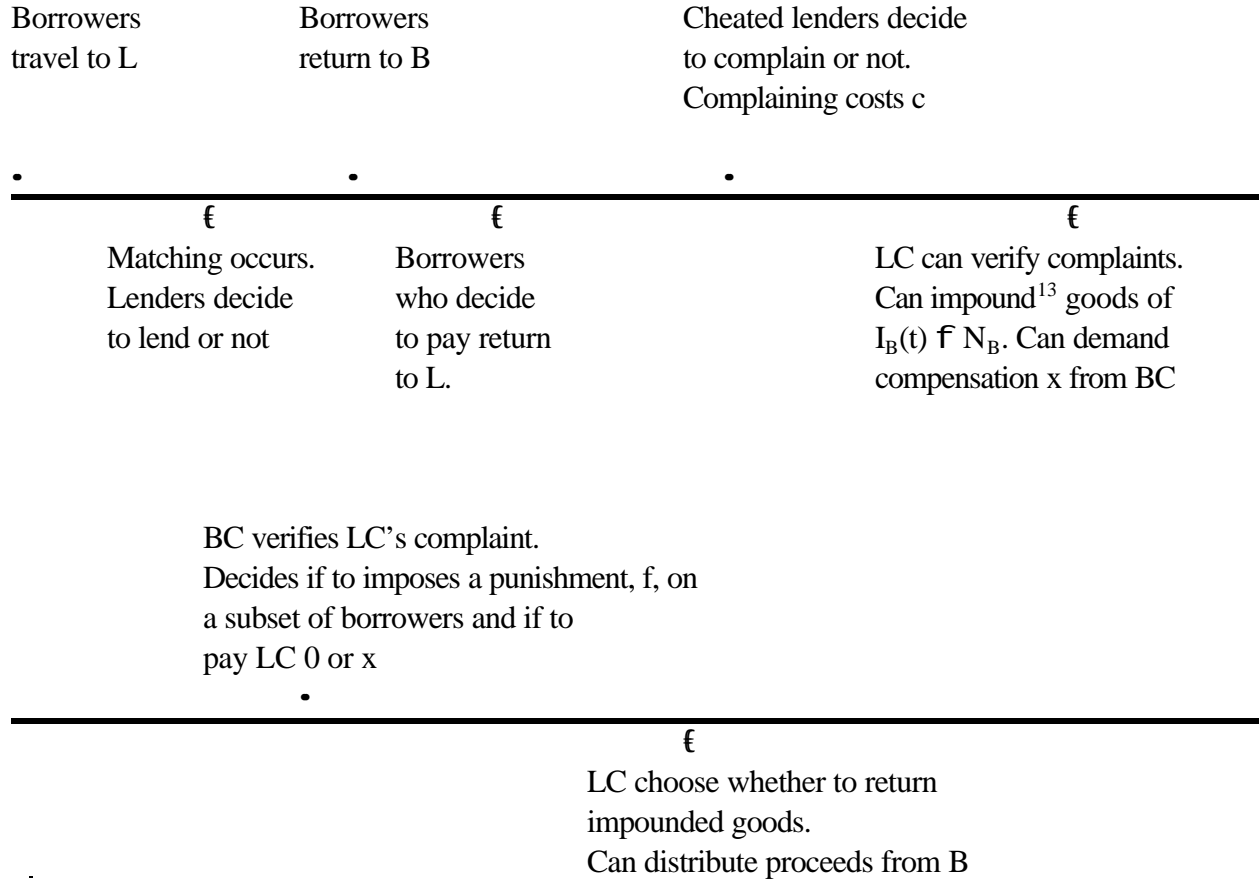
Following the historical evidence, it seems inappropriate to consider these courts as dispensers of impartial justice. Furthermore, it also seems inappropriate to consider them independent decision-makers with their own interests. With the exception of fairs (as discussed below), the structure of courts and the incentives faced by decision-makers within them were such that they aggregated the interests of a community's living members. They resembled bodies for collective decision-making whose leading members did not gain private benefits from inter-community exchange in a way that was different from that of other members of their community. In Florence, for example, prior to 1250, initiating actions over disputes in inter-community exchange was the responsibility of the city administrator and his council. By 1325 to take such actions the city administrator had to make two

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<sup>12</sup> The analysis is robust to multiple borrowers' communities but is sensitive to assuming multiple lenders' communities. See below.

requests to the Commune to get approval. In 1415 the statute detailing the rules for such actions specifies that they were under the authority of consuls responsible for crafts and trade and no longer under the authority of the city's administrator. Yet, for these consuls to initiate actions in inter-community disputes the actions had to be approved by two additional bodies, the Consuls of the Popolo and the Consuls of the Commune. (Santini 1886, 168-72.)

The social and political context of medieval trade was such that communities controlled their enforcement institutions. Decisions over disputes in inter-community exchange were made by a community's representatives and involved many decision-makers. Accordingly, assume that a community court's payoff is the sum of the payoffs of its living members, and assume away the possibility of bribes. This implicitly assumes, as a bench mark case, that each community member's payoff has equal weight in the court's payoff function. As before, assume that past actions are private information but they can be ex-post verified by the courts. The cost of verification for LC is  $C_L$  and it is  $C_B$  for BC. Assume for the moment that courts' actions are publicly observable and that lenders' and borrowers' identities are known. Below I will return to examine the appropriateness of these assumptions. It is easiest to present the players' actions and their sequences using the following time line.



The value of the goods the LC impounds is  $g$  per borrower. A borrower whose goods were impounded bears the cost of  $d$  (damage)  $> 0$  whether the goods are released or not. The fine that the BC can impose on a borrower ( $f$ ) and the cost for a lender to complain ( $c$ ) are positive.  $I_B(t)$  can be empty and has to be smaller than the number of borrowers in the lenders' territory.

Is there a SGPE with lending on the equilibrium path? The following definitions will be helpful in exploring this issue. The game is in **Cooperation State** if (1) there has been no impounding without default, (2) BC has never refused to pay compensation after default, and (3) LC has never refused to return impounded goods after receiving compensation from BC. If either of these conditions fails, then

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<sup>13</sup> "Impound" (namely, to take legal or formal possession of goods to be held in custody of the law) and "confiscation" (namely, seizure under public authority) seem appropriate here.

the game is in **Conflict State**.<sup>14</sup> Consider the following strategies: A borrower travels if and only if the two communities are in cooperation state. He borrows if he is given a loan, and returns to pay his debt. If he defaults, he pays compensation whenever it is demanded by BC. If he ever travels to L during conflict and obtains a loan, he defaults. A lender lends if he is matched with a borrower during cooperation, and does not lend during conflict. He complains if and only if he is cheated.

LC never demands compensation when there is no complaint. LC verifies every complaint only in cooperation state, and if the complaint is valid, it impounds the goods of borrowers present in its territory and demands from BC compensation equal to the total cost of default, complaining, and verifying to the lenders ( $x = i - l + c + C_L$ ). If BC provides compensation, LC compensates the lender who was cheated, and returns the impounded goods. If BC does not provide compensation, LC continues to impound goods from members of B who are in L territory. LC impounds the goods of all borrowers in its territory if it ever impounded goods without complaint. BC verifies any complaint and if the complaint is found valid, BC imposes a fine of  $f = x + C_B$  on the defaulter and pays  $x$  to LC.<sup>15</sup> If LC furnished a complaint that BC finds invalid, it does not furnish compensation.

Under what conditions is the above strategy SGPE and how exactly does it mitigate the various problems that hinder impersonal exchange in the absence of a community?

Given the strategies of the lenders, the LC, and the BC, it is a borrower's best response to travel, return, and repay if and only if the state is that of cooperation. In a state of cooperation, borrowing and paying implies the payoff of  $g > 0$ , and cheating implies the net penalty of paying for complaints and verification ( $-c - C_L - C_B$ ). Furthermore, in a more realistic model of the situation (discussed below) with imperfect monitoring, and hence impounding on the equilibrium path, it is clear why a borrower would be willing to acquire the information about whether the state is cooperation or conflict as long as the cost of doing so is less than  $d$ .

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<sup>14</sup> Because we assume, so far, that all complaints are perfectly verifiable. The probability of disagreement between LC and BC is zero.

<sup>15</sup> For simplicity, it is assumed that borrowers can pay  $f$ . In reality, when this was not the case, members of his community paid. Arguably, it was difficult for a LC to verify if indeed a borrower was really bankrupt or not.

Given the strategies of the borrowers, the LC, and the BC, it is a lender's best response to lend if and only if the state is cooperation (and similar to borrowers, lenders have an incentive to learn what the state is). Because a lender has to bear the cost of an invalid complaint ( $c$ ) but is rewarded for presenting a valid one ( $x > C_L$ ), a lender's best response is to complain only if cheated. BC's best response is to verify any complaint, impose the above fine, and compensate the LC if condition 1 holds:

$$g \int_{t=0}^{T+1} (N_B \& t) @ \dot{a}^{t\%1} \% I_B(t) @ g \$ x \% C_B.$$

This condition is that if the value of future lending and that of the impounded goods to the living members of the borrowers' community are more than the value of the amount demanded by the LC ( $x = G - g + c + C_L$ ) and the cost of verification.<sup>16</sup> It is clear that LC's best response is to verify a complaint and demand compensation. It is also motivated to return the impounded goods and not to impound without a valid complaint if condition 2 holds:

$$i \int_{t=0}^{T+1} (N_B \& t) @ \dot{a}^{t\%1} \$ g N_B$$

That is, the value of future trade to the living members of the lenders' community is higher than what they can gain from impounding all the goods and foregoing future trade. The linchpin in making this strategy an equilibrium is the incentive provided to the borrowers' community. The BC's best response is to verify a complaint, impose a fine on a cheater, and compensate

Theoretically, a CRS can support impersonal exchange in the absence of impartial contract enforcement provided by a non-strategic player.<sup>17</sup> The CRS is a self-enforcing institution: all behavior and expected behavior, including that of courts, is generated by each decision-makers' best response

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<sup>16</sup> If we were to allow coordinated cheating by all the borrowers, the condition would have been:

$$g \int_{t=0}^{T+1} (N_B \& t) @ \dot{a}^{t\%1} g \$ N_B (x \% C_B).$$

<sup>17</sup> Fearon and Laitin (1996) explored how communities can be motivated to discipline their members to achieve interethnic political cooperation.



to the behavior and expected behavior of others. Its linchpins are the affiliation of individuals with communities that have contract enforcement institutions. Although communities are self-interested and their courts represent only the interests of their living members, they enable overcoming the commitment problem inherent in exchange despite the finite life span of each of these members. The community constitutes an on-going organization that internalizes the cost inflicted by the default of one borrower on others. In particular, if a borrower's cheats in his T-1 period, the lenders' credible threat not to lend again implies that the borrowers' community is worse off. The younger borrowers thus find it optimal to punish a cheater. A borrower, even a T-1 borrower, finds it optimal to repay his debt. Anticipating that this will be the case, lenders can lend despite the borrowers' finite life spans. Although the community aggregates the payoffs of only its living members, each of whom has a finite life span, it becomes, de facto, a substitute for a single infinite horizon player. At the same time, the strategies of the players imply that a lender does not benefit from furnishing false claims and courts are motivated to examine the validity of claims.

In addition, the CRS reduces the information required to conduct exchange thereby enabling impersonal exchange and motivating individuals to provide and acquire the needed information. One does not need to know the past history of his current partner to enter into exchange. Rather, all one needs to know is his partner's community affiliation and whether there is a state of cooperation or conflict. Relative to the multilateral reputation mechanism, for example, the CRS requires much less information which, in the historical episode under consideration, was much easier to obtain (as further discussed in the next section). Furthermore, the CRS provides lenders and borrowers with incentives to provide and acquire the information required for the functioning of the system. A lender is motivated to furnish a valid complaint because doing so is profitable while furnishing an invalid complaint leaves him worse off. Lenders and borrowers alike are motivated to acquire information regarding whether the state is conflict or cooperation because this knowledge is valuable. Traveling to borrow in a conflict state costs one  $d$  while lending costs one  $l$ .

### **3. The Community Responsibility System: A History**

A systematic examination of the extent to which a Community Responsibility System functioned in pre-modern Europe has not been undertaken yet, but it was clearly widespread. In every economic unit whose primary or secondary records I have examined, there is ample historical evidence indicating that by the twelfth century the CRS supported inter-community, impersonal exchange. This is the case with respect to Italy, England, France and Flanders. The CRS thus prevailed in the most populated and commercial areas of the period (Italy and Flanders), in the largest political unit (France), and in the best organized country (England). While the origin of the CRS has not yet been revealed by the historical records, it may have emerged during the ninth and tenth centuries when merchants from the same locality traveled together in armed bands to trade abroad. The following discussion draws particularly on evidence from England and Florence.

Direct and indirect evidence supports the claim that the CRS prevailed. Direct evidence is explicit statements on rules, regulations, court cases, etc., reflecting the strategies and actions associated with the CRS. In addition, a rational and consistent explanation can be advanced for trade-related phenomena, either as providing the organizational framework required for the functioning of the CRS, reflecting its operation, or reflecting the process of its declining operation. This indirect evidence further suggests that the CRS indeed governed inter-community exchange.

Part of the strategy associated with the CRS called for holding a person's community members liable for his default in inter-community exchange. This part of the strategy is well reflected even in documents related to inter-community exchange among members of communities within the same political unit. Consider some of the evidence contained in twelfth-century English documents. 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."<sup>18</sup> Such community responsibility could have even been invoked in response

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<sup>18</sup> *English Historical Documents*, vol. II: 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: 128-30*. In this charter Henry exempted the Londoners from the Community Responsibility System, an issue which is discussed

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."<sup>19</sup>

The above charter focuses on the relations among 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 presented in the *Select Pleas in Manorial and Other Seigniorial Courts* (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.<sup>20</sup> "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 commonality 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 same strategy is mentioned in agreements regarding exchange between merchants from England and other political units. Consider, for example, a statement made by King Henry III in 1266. The king granted "to his burgesses 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."<sup>21</sup>

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below.

<sup>19</sup> English Historical Documents, vol. II: 1012-3.

<sup>20</sup> 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.

<sup>21</sup> *Calendar of the Patent Rolls Preserved in the Public Record Office*, 20, pp. 1266-1272:.

Similar strategy is reflected in a 1252 document from Flanders. This is a statute drawn up by Countess Margaret regarding the operation of foreign merchants visiting the Flanders fairs. Foreign merchants were held liable for debts assumed by their peers. Yet, consistent with the interpretation that such liability was utilized to ensure punishing those 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 impounding their goods. (Verlinden (1979), p.135).

The above rules reflect a particular part of the strategy associated with the CRS: holding a member of one's community responsible for his contractual obligations in inter-community exchange. But evidence also reflects the complementary part of strategy: holding one liable for the cost that his actions abroad imposed on other members of his community. Intra-community punishment is reflected in the thirteenth century "*Discorso intorno al governo di Firenze dal 1280 al 1292*" which states that in response to accusations of cheating a member of another community, the Commune of Firenze was to press on the culprits to pay the damages himself (Santini (1886), p. 166). Similarly, some English boroughs went so far as to have the policy that once a foreign creditor could establish that a member of the borough had failed to repay his debt, the authorities would pay him out of the borough's funds and later they would seek double indemnity from the debtor (Plucknett (1949), p. 137).

The nature of the transactions to which these rules were applied is also consistent with the operation of the CRS. For the CRS to function, courts had to have a way to verify complaints about cheating. The ability to ex-post verify, however, depended on the nature of the transaction under consideration. It is easier in transactions - such as credit and contracts for future delivery - in which the obligations of each party are relatively clear. Ex post verification is much harder, however, in transactions - such as agency relationships - in which the obligations of the parties are not that well defined. Indeed, rules regarding the CRS restrict the applicability of the system to transactions of the latter kind rather than the former. Agency relations during the Commercial Revolution, for example, were governed by institutions other than the CRS. (Greif, (1989, 1993, 1994).)

Apart from rules corresponding to the CRS strategies, the organization of medieval trade exhibits various peculiar features that can be consistently and rationally explained as reflecting the needs

of the CRS. Consider, for example, the Champagne Fairs. They were not organized as a meeting place in which individual merchants from different localities interacted. On the contrary. They were organized as a meeting place for individuals from different communities, each one having its own place of residence, permanent representation, and scribes. Communities even had legal authority over their members. Safety considerations would have accounted for a communal place of residence but cannot account for other aspects of these arrangements.

But the rationale beyond these arrangements is clear once one recognizes that they were part of the organizational foundations of the CRS. If a community is held liable for the actions of its members, it has to have the representation required to verify who its members are, and the ability to discipline them when needed. Similarly, the fairs' authorities must have had the ability to identify members of a particular community and its representatives in order to approach them when necessary. Indeed, in 1260 the wardens of the Champagne fairs had the right to pronounce a sentence of exclusion from the fairs following a default, and this exclusion was extended to the compatriots of the defaulters if the judicial authorities of their own town or principality did not compel them to fulfill their obligations. (Verlinden (1979), p. 131.) The contractual problems that developed because one's identity was not common knowledge were resolved through such organizational arrangements.

If the CRS indeed governed inter-community exchange, we would expect organizational details and rules to change to facilitate it in a manner consistent with the functioning of this institution. We would expect, in particular, that it would respond to opportunities to achieve the same level of enforcement while avoiding the cost of confiscating goods and imprisonment. This opportunity emerged once trade expanded. To see why this occurred, note that if the value of future trade in the borrower's community is sufficiently high, confiscation or impounding goods is not required to support exchange. To demonstrate this point, suppose for the moment that the LC cannot impound goods. In this case, for the CRS to support exchange, 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 that trade cease and hence forgo compensation.) This condition is more likely to hold if the number of borrowers is large or the value of trade is 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 is the case, impounding goods is 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 do so will also imply the loss of the impounded goods. Hence impounding goods enables exchange at a relatively low level of trade.

Thus, theory implies that in the early stages of the Commercial Revolution when communities and their trade were relatively small and growing, 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 impounding goods, 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. 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 impounding of goods under the CRS. (Santini (1886), 165, pp.168-72.)

Rules, their evolution, and organizational features during the late medieval period indicate that the CRS could and did govern inter-community exchange. But did it really? In particular, were the rules reflecting the CRS effective in influencing behavior or were they only agreements that did not achieve this? In other words, is there evidence that the CRS actually functioned? Do we see, for example, a court following the above rules? This kind of evidence is not predicted by the above model in which disputes leading to court cases are not supposed to occur on the equilibrium path.

This result, however, reflects an unrealistic assumption. The model assumed perfect ability to monitor past actions: parties to the exchange observed each other's actions and the courts could verify their 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. Further

evaluating the extent to which the CRS prevailed, therefore, requires extending the model to capture this aspect of reality.

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 that he was cheated.<sup>22</sup> 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.<sup>23</sup> In other words, courts can sincerely disagree about whether cheating took place.

The first observable implication of the above formulation is that we should observe court cases based on the CRS. A more intriguing implication is that any equilibrium implying exchange will be characterized by cases in which individuals will sue each other based on the CRS. Furthermore, we should observe periods of inefficient inter-community "retaliations" followed by their "suspension."<sup>24</sup> During retaliation, impounding 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 and the BC concludes that it did not. Such periods of

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<sup>22</sup> The historical records suggest that disputes were more likely to occur when one of the contracting parties passed away, the debt was old, the contract was not clearly defined, or the contracting obligations were allegedly fulfilled by the agents of one of the parties rather than one of the parties themselves.

<sup>23</sup> It is assumed, for simplicity, that if there is no dispute, the courts have perfect monitoring ability.

<sup>24</sup> This conclusion qualitatively holds even if one complains of cheating although a dispute did not occur and the courts have imperfect monitoring ability in the sense that in positive probability each court would reach a distinct conclusion following the complaint.

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 confiscating when it maintains that cheating occurred, the BC's best response is not to furnish compensation even if its signal indicates that cheating occurred, thereby motivating borrowers' to cheat. 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.<sup>25</sup>

These two theoretical predictions - observing court cases based on the CRS and periods of retaliations following disputes and disagreements among courts - are well reflected in the historical records. Cartularies, chronicles, and court cases reflect disputes that were handled according to the rules of the CRS. I will mention here some of the earliest evidence from Italy. Ample cases from England are presented in Moore (1985), Plucknett (1949) and some other English cases are presented later in this section.

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 before 1164 a Genoese trader, Amicus Zostro, received a loan from Xecha Bohadie, a Muslim trader from Tripoli. While Amicus had evidently already arranged to pay Xecha's brother or son in Sicily, Xecha claimed that no such payment had been made. In July, 1164, following Xecha's assertion that payment had not been made, Amicus sent an agent named Baldezonus from Genoa to Tripoli carrying six cantras of copper. Baldezonus was instructed to sell the copper and pay Xecha if the latter would swear in the presence of reliable witnesses that he would hold neither Amicus nor any other Genoese merchant for ransom.<sup>26</sup>

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<sup>25</sup> 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 get revenge, costly retaliations are unavoidable. Even arbitration will not resolve the dispute. If arbitration is cheap, 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 were groundless.

<sup>26</sup> Giovanni Scriba, no. 1245. By the fifteenth century this procedure was 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: 76). Any sin, including cheating in a



Another mention of actions based on the CRS in Italian sources of the twelfth century, however, indicates that its operation was confined neither to the relations between Christian and Muslim traders nor to Genoa at that time. According to the chronicler of the Emperor of the Holy Roman Empire, Frederick Barbarossa, when the Emperor visited Bologna in 1155, the students of Bologna's famous law school expressed their dissatisfaction with the CRS to him because the city of Bologna was holding them liable for debts incurred by members of their original communities. (Munz (1969), 77)

Retaliation and its termination, as predicted by the theory, are also mentioned in the historical records. For example, in 1238, Beatrice, wife of Marcovaldo of Florence, requested a retaliation against the properties of the people and the Commune of Pisa, for a sum of 2,000 and interest of 750 dinar piccoli of Genoa, to be paid by the heirs of Ubaldo Viscount and Torritano, the son of the late Lamberto, and by two Pisans who had posted a guarantee for 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. Such denial, according to the above model, would occur when the two courts differed in their assessment of the situation. Various commercial treaties reflect that contemporaries indeed considered retaliation to be unavoidable in cases of disagreement among courts. A treaty between Pisa and Florence signed in 1214, specifies that retaliations would follow if the judges were unable to settle the dispute. (Santini (1886), pp.165-8.)

Disputes were not unique to Italy. A dispute in 1270 may have been the reason 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

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business matter was considered as dishonoring to Islam.

about 200 marks. Yet, the countess of Flanders refused to provide justice. Accordingly, Gottschalk requested that the court impound the goods of members of the above communities present at the fair.<sup>27</sup>

Retaliations were a calculated response aimed at fostering exchange rather than acts of revenge. This is suggested by attempts to confine them only to inter-community commercial matters. A 1325 statute from Florence, for example, explicitly enumerated the cases in which it was appropriate to grant retaliation. It could be granted in cases in which there were losses in currency or goods, damage to property, tax extortion, or personal detention. No retaliation was allowed in cases involving personal bodily offenses. (Santini (1886).) 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.<sup>28</sup>

The above theoretical and historical discussion emphasizes the association between communities and courts. Yet, fair courts that were not affiliated with a particular community also applied the principal of community responsibility during the late medieval period. An examination of their cases indicates that fair courts acted like the LC, holding one member of a community responsible for contractual obligations assumed by another member.<sup>29</sup> As mentioned above, the Champagne fairs held a community responsible for the contractual obligations of each of its member. English fairs acted similarly. For example, sometime in the thirteenth century at the fair of S. Botulph in England, a certain James complained that several merchants of Brussels had cheated him. After verifying his complaint, the fair bailiff impounded wool belonging to the merchants from Brussels who were present at the fair.<sup>30</sup>

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<sup>27</sup> Pro SC 2/178/93: 14 May 1270 published in *Select Cases Concerning the Law Merchant: A.D. 1270-1638*, 1: *Local Courts*: 9-10.

<sup>28</sup> For a discussion of suspension, see Arias (1901), pp. 177-88. See also Santini (1886), p. 165.

<sup>29</sup> For many examples of using the CRS in the courts of English fairs, see Moore (1985).

<sup>30</sup> *Selected Cases Concerning the Law Merchant*, vol, II, no. 7: 11-12.

How were fair courts motivated to apply the LC strategy and demand compensation, or the BC strategy and punish a person who defaulted on his obligations? The way that the court case from S. Botulph evolved indicates that motivation was provided by the fair courts' legal obligations to the king or another lord. James believed that the bailiff of the fair neglected to adhere to the CRS so he entered a plea against the bailiff before the "lord king" of England. In the plea he complained that the "bailiff of the fair aforesaid, had wrongfully delivered sacks of the wool aforesaid to the aforesaid merchants (of Brussels) to the grave damage and manifest loss of James himself, inasmuch as the same commune has not yet satisfied him in respect to the debt aforesaid."

An interesting feature of late medieval trade is that its main centers did not have an affiliated community. This is true, at least for the Champagne fairs, the important trade center of Bruges which replaced the Champagne fair as northern Europe's trade center, and one of England's most important fairs, that of St. Ives. These trade centers were places where merchants from various communities met and there were probably many reasons for their prominence. But one of their unexplained and peculiar features is that their own merchants only traded locally and did not travel to other trade centers. Why was this the case? Recognizing the importance of the CRS in governing inter-community exchange provides a consistent and rational explanation for this observation.

Running a successful fair or international trade center was a profitable business. Hence, those who held the rights to the fair and its court stood to gain from the increasing the volume of trade at the fair under their jurisdiction. Providing inter-community impersonal contract enforcement increased the fair's attractiveness to alien merchants. In providing this, trade centers without an affiliated trading community had an advantage over those that did have one. The incentives to provide inter-community enforcement are diluted if the trade center's court was also a community court since, in that case, the community's own merchants might have to bear the cost of retaliation in cases of dispute.<sup>31</sup> Fairs which did not have an affiliated merchant community might have been better able to promote impersonal exchange.

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<sup>31</sup> These concerns are explicit in Florentine legal documents that explicitly restricted the right to demand reprisals from its own citizens. See Vecchio (1975), pp. 14-5.

During the Commercial Revolution, the CRS enabled inter-community exchange that was impersonal up to one's community affiliation. One did not have to know the personal history of another community member to exchange or to rely on expectations for future exchange with that individual. Its novelty is that it took advantage of the existing communal structure and its enforcement mechanisms to support inter-community impersonal exchange. Information was limited and each community member had a finite life span. Impersonal exchange was nevertheless possible based on one's identification as a member of a particular community and a strategy that motivated communities to punish a member who defaulted on his obligation toward non-members. It was this institution that facilitated the Commercial Revolution by enabling contracts for future delivery and credit arrangements between individuals from various corners of Europe.

### **3. 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, based on the concept of individual legal responsibility. What led to the decline of the CRS? This section argues that this decline reflects intra- and inter-community economic, social, and political processes that reduced the system's efficiency and undermined its intra-community political viability. Ironically, decline of the CRS was fostered by the process of trade and community expansion, and inter-community interactions that it had facilitated.

To substantiate this claim, this section integrates theoretical and historical analyses. It theoretically elaborates on how trade and community expansion, and inter-community interactions influenced the economic efficiency of the CRS and its intra-community political viability. The observable implications of these analyses are then confronted with historical evidence such as court cases, regulations, legal changes, and traders' actions. Finally, two alternative hypotheses are examined.

Theoretically, if the CRS fostered the rise of trading communities and inter-community interactions, it thereby eroded its own efficiency. Growth in trade and extensive interactions made it easier to falsify one's community affiliation and harder to verify it. The more prevalent falsification of identity and difficulty of community verification became, the more inefficient the CRS became because more disputes occurred.

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. 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. (Bairoch et al. (1988) and Beresford and Finberg (1973).)

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 guild, 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 identities 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.<sup>32</sup>

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<sup>32</sup> 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*, 155, pp. 145-6,

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 promised to pay in the following year but had not. To prove their case, William and Amice produced a tally from the court of Leicester.<sup>33</sup>

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 impounded 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.<sup>34</sup>

Another way in which the CRS could theoretically impact its own efficiency was by influencing the numbers and implications of disputes and retaliations. Retaliations are unavoidable transaction costs due to limited *ex-post* verifiability of actions; imperfect monitoring implies retaliations on the equilibrium path. The CRS contributes to the growth of communities and their trade. And as the number of traders increases, so does the probability of dispute and hence retaliations. More trade implies a higher probability of retaliation at any given point in time.

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<sup>33</sup> On the tally and its use, see *Select Pleas in Manorial and Other Seigniorial Courts, Reigns of Henry III and Edward I*, p. 133.

<sup>34</sup> See below regarding the exception of London from the CRS.

An increase in the number of traders and the probability of retaliations had two implications for the cost of the CRS in terms of the uncertainty it imposes on an individual trader. More traders imply that if a dispute occurred, the probability that a particular trader's goods will be confiscated is lower. On the other hand, more traders imply more disputes and retaliations. Together these imply that goods of a (risk averse) merchant are more likely to be confiscated or impounded, he himself is more likely to be taken hostage, and his trade is more likely to be interrupted, even if he fulfilled all his contractual obligations.

Theoretically, the net result of increased trade on the strategic uncertainty a trader faces is thus unclear and depends on the details of the situation. More traders imply that a particular trader's goods are less likely to be captured but more traders also imply more disputes. The historical records indicate, however, that in the historical episode under consideration the net result was increasing costs (Arias, (1901)). Increasing costs seem to reflect that courts could impound goods only from traders present in their jurisdiction. Whenever retaliation loomed on the horizon, merchants attempted to ensure that their own goods would be spared by departing.

Florence's historical records, for example, indicate that once a retaliation was expected, merchants of the communities involved would refrain from trading in each others' cities, while merchants who lived permanently in the other communities would leave their residences with their merchandise.<sup>35</sup> Recognition of this problem and attempts to mitigate it are reflected in agreements aimed at reducing the inefficiency associated with retaliations. Communities agreed to restrict the penalty that could be imposed on a particular individual or to 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. (Arias (1901), p. 52.) In other cases, attempts were made to use taxes on members of a community to allocate the costs of retaliation.<sup>36</sup> Yet, the

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<sup>35</sup> For this behavior and its costs in Italy, see Arias (1901), pp. 156-8.

<sup>36</sup> 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.

uncertainty implied by the CRS could not be completely avoided and as the size of communities grew, the cost of retaliations and uncertainty seem to have increased as well.

Another way in which the CRS undermined its own economic efficiency is the following. Theoretically, by fostering community growth a CRS will lead to increases in retaliations relative to the number of traders, and hence it will increase the pre-trader cost associated with retaliation. This effect is due to the adverse effect that the CRS has on the moral hazard problem associated with credit financing, the main transaction for which the CRS was used. Theoretically, by increasing the size of communities, the CRS intensified this moral hazard problem, causing an increase in retaliations relative to the number of traders.

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 undermines such incentives. Even when, as assumed in the above model, matching is random and one does not know his business partners' past actions, a lender can still evaluate the creditworthiness of a borrower based on other signals. In the historical episode under consideration, these signals included the borrower's age, type of clothing, number of servants, the quality and nature of the goods he carried, etc. But a CRS provides insufficient incentives to lenders to screen a borrowers' creditworthiness by considering these signals. Under the CRS the future trade of all members of the borrower's community are the de facto collateral for the loan, and hence a lender has a relatively weak incentive to verify a borrower's ability to repay it.<sup>37</sup> The incentives are not zero because of the cost associated with recovering a loss from members of other communities, but they are much less than they would be if only borrowers had been held responsible for their debts. Hence, credit financing under the CRS attracts borrowers with "bad" projects which are likely to fail, and thus are more likely than other projects to lead to retaliation.

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<sup>37</sup> Almost 100 years prior to the rise of Information Economics, Arias (1901), p. 166, noticed this adverse effect of the Community Responsibility System.



Theoretically, the extent to which the CRS undermines incentives to check creditworthiness increases with the number of borrowers. The larger this community is, the more likely it is that one will be able to obtain the goods of one of its members. Also, the more likely it is that the borrowers' community will prefer to pay the lender rather than forego the benefit of future trade. Thus, the CRS increases the probability that a dispute will occur after a borrower failed to pay his debt. This implies that other members of the borrower's community will have to pay for him or that the dispute will lead to retaliation. Hence, theoretically, the growth in the size of communities increases the per-trader costs under the CRS.

While the above discussion indicates a theoretical possibility, to influence lenders' behavior during the late medieval period they had to have been aware that this possibility existed. Interestingly, lenders during this period clearly understood this moral hazard 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 with whom they would be dealing. 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, from him it will be asked") because retaliation would not be permitted. (Arias (1901), pp. 166-7.)

Recognition of the above moral hazard problem and its relationship to the CRS is reflected in the seemingly puzzling changes in laws and rules related to the CRS that took place around this time. In Italy and England, the authorities increased the cost of default to the lender by demanding that prior to requesting justice from his community's legal authorities, a lender had to travel to the borrower's community and make his case there. Only if justice was not provided could he apply to his own community's 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 but only later charters reflect rules increasing the cost of default to lenders. In a charter given to the city by King Henry III in 1256 there is a clause increasing the cost to lenders. It states that the "beloved burgesses of Cambridge" will "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." (Maitland and Bateson (1901), pp. 14-5.)

Another interesting legal change that occurred during this period is the emergence of territorial law. Alien merchants who were previously under the jurisdiction of their communities while abroad were increasingly placed under the authority of the community within which they were present. Consider the following 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 that they would be kept there until brought to justice. (Arias (1901), p. 100.)

Such changes are puzzling. Why punish a lender who was not paid? Why the transition to territorial law? The nature and timing of these changes, however, is consistent with the argument that the CRS was contributing to its own demise by fostering the moral hazard problem and increasing the ease in which one could move from one city to another. The logic behind increasing the cost of default to the lender is transparent in light of the above discussion of the relationship between the CRS and the moral hazard problem. The increased cost to lenders was aimed at mitigating the moral hazard problem and providing lenders with better incentives to evaluate the creditworthiness of their borrowers. Similarly, increasing mobility reduced the effectiveness of the community's enforcement institutions necessary for the CRS to function. Following bankruptcy, one could now more easily escape to another city. Mitigating this problem required the transition to territorial law.

The ability to mitigate the problem of runaway defaulters, however, was limited probably because of the courts' limited ability to check the identity of non-residents (as discussed in section 2). Even in the well organized kingdom of England, the authorities were known to have been usually unable

to locate an individual who escaped from his place of residence.<sup>38</sup> In England, as a matter of fact, one did not even have to escape in order to avoid paying a debt. During this period English law precluded selling one's house or real estate to repay a loan, or even punishing a borrower who defaulted with imprisonment. (Jones, (1979).)

Theoretically, implications of the CRS on intra-community social and economic heterogeneity are likely to reduce its intra-community political viability. By fostering trade, the CRS contributed to growth in intra-community heterogeneity. Intra-community heterogeneity implies that maybe some segments of the community will be bearing the cost, but not the benefit, of the CRS. These former segments of the community will then be motivated to act within the commune to abolish the CRS. Thus, the CRS, by fostering intra-community heterogeneity, can undermine its own political support.

The prediction of this theoretical consideration is that rich members of a community and heterogeneous communities are likely to attempt to abolish the CRS. Rich, well-established merchants who already have the connections, reputation, and wealth required to conduct personal trade, gain less from the CRS than others. Yet, they have to bear its cost even though the CRS better serves those less-well-to-do merchants whose trade depends on it. 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 directly gaining much, or anything, from the CRS.

Indeed, consistent with the above argument, the historical records reflect that, in England and Italy alike, wealthy traders and large communities sought exemptions from the CRS or wanted to abolish it altogether. Moore (1985) examined cases brought before the court of the St. Ives fair in England and noticed that in the second half of the thirteenth century there “was an increasing number 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 exemptions from the king from the CRS. With about 25,000 residents, twelfth-century London was the largest city in England and a large city by Western

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<sup>38</sup> Plucknett (1949), p. 142. As late as the seventeenth and eighteenth centuries, “a felon could consider himself distinctly unlucky if he was captured by the authorities.” (Bellamy (1973), p. 201).

European standards of that time. (Bairoch et. al. (1988), p. 33.) 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, as cited above, Londoners had the right to apply the principle of community responsibility to residents of other cities.<sup>39</sup>

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, sometime between 1225 and 1232, King Henry III assured the merchants of Ypres that none of them "will be detained in England... nor will they be partitions for another's debts." 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."<sup>40</sup>

The historical records from Italy also reflect the reduction in the intra-community political viability of the CRS. Distinct incentives among various segments of Florence regarding the CRS are reflected in an appeal made on 22 February, 1296, by some Florentine merchants to the authorities of the city about a retaliation with Bologna. These were merchants whose livelihoods 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 seems that the rest of Florence did not care about settling the matter. (Arias (1901), p. 165.) Similar distinct incentives are reflected in Florence's fifteenth-century regulations. In 1415 it was

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<sup>39</sup> *English Historical Documents*, vol. II, no. 270, pp. 1012-3.

<sup>40</sup> *Calendar of the Patent Rolls Preserved in the Public Records Office*, 460, pp. 1232-1339.

forbidden to retaliate against foreign rectors, officials, or against traders coming to Florence to sell edibles. (Santini (1886), pp. 168-72.)

Indeed, attempts to abolish the CRS in Florence reflect the interests of particular segments in the city. The *mercatores* of Florence were the city's affluent merchants whose business during the thirteenth century was carried out over most of Europe, as far north as Sweden. While they may have had the ability to exchange based on their own reputations, they had a great deal to lose from 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. (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.<sup>41</sup> 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.

Hence, the above evidence both supports the claim regarding the relevance of the CRS during the late medieval period and suggests that it planted the seeds of its own destruction. The CRS fostered inter-community economic interactions and facilitated the growth of trade, as well as growth in the size, number, and heterogeneity of merchants' communities. These processes diminished the system's effectiveness, increased its economic costs, and undermined its political viability.

This account substantially differs from the common explanations of similar organizational and institutional changes that occurred in the late medieval period. The first explanation is that they reflect economies of scale associated with increasing populations and trade (North and Thomas, 1973). This

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<sup>41</sup> The Latin version of this treaty is contained in Arias (1901), pp. 400-404.

argument implies that once population and trade grew, the CRS became less efficient than a centralized legal system with higher fixed costs and lower marginal costs.

This thesis, however, does not indicate the process through which efficiency enhancing change occurred. The discussion of the decline of the CRS provides yet another example that understanding institutional changes requires examining the costs and benefits to those who can take relevant actions. An institutional change will not necessarily occur just because it is efficient. Furthermore, the economies of scale thesis implies 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, but this return did not occur. In any case, we have no way to measure and compare the economies of scale or the relative efficiency of the CRS or Individual Legal Responsibility.

The second explanation of institutional change, such as the one discussed here, is it reflects attempts by the state to dominate communities and fill its own coffers (Benson (1989)). The evidence indicates, however, that this thesis is not relevant as far as the CRS is concerned. This thesis predicts, for example, that the CRS should have been abolished as a part of a process through which a centralized state would emerge. But, as discussed above, a transition away from the CRS was also observed in Italy where such a political change did not coincide with the decline of the CRS. Furthermore, even in England, where such political changes did occur, there is ample evidence that the transition away from the CRS was not driven by the interests of the state but by those of the merchants.

We have seen that individuals and communities approached the state to gain immunity from the CRS. Furthermore, merchants' declining confidence in the effectiveness of the CRS is well reflected in the Close Rolls. Throughout the period under consideration, merchants could have chosen to register debts in these chancery rolls, thereby placing their transactions under the jurisdiction of the Common Law. This implies that property and goods could have been placed as bonds for repaying debts. (Moore (1985), n.105.) Registration, however, was costly, and prior to 1271 few debts, if any, were enrolled each year. As long as the CRS functioned well, traders relied on it and did not register their debts. The number of registered debts, however, rose substantially by 1271, just before the CRS was

abolished in England.<sup>42</sup> On the eve of the change, traders were seeking alternative contract enforcement institutions.

Finally, there is no indication that the state gained much from replacing the CRS. We have no evidence that the legal system was profitable to the Crown. On the contrary, it seems to have been a financial liability. As noted by Bellamy even as late as the seventeenth and eighteenth centuries, "the maxim" of contract enforcement by the English state "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" ((1973), p. 201).

While similar factors contributed to the decline of the CRS in England and Italy, the extent to which communities could have abolished it depended 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 institution. Indeed, although inter-community treaties to abolish the CRS in Italy were signed during the late thirteenth century, retaliations continued in centuries to come. 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."<sup>43</sup> The Statute of Westminster I did not establish any alternative institution for contract enforcement and the results ) in terms of inability to

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<sup>42</sup> *Close Rolls of the Reign of Henry III*, pp. 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.

<sup>43</sup> *English Historical Documents* Vol. III, p. 404.

contract) were apparently severe.<sup>44</sup> A later statute in 1283 declared that "merchants who in the past have lent their substance to various people are impoverished because there was no speedy law provided by which they could readily recover their debts on the day fixed for payment, and for that reason many merchants are put off from coming to this land with their merchandise to the detriment of merchants and of the whole kingdom."<sup>45</sup> 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, between England and France, in 1279, and only later, in 1283, in the rest of England.<sup>46</sup> 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 bonds. 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.<sup>47</sup>

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

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<sup>44</sup> Although the merchants could have used, as mentioned above, the costly and time consuming common law court.

<sup>45</sup> *English Historical Documents*, vol. III, p. 420

<sup>46</sup> See discussion in Patourel (1937), p. 97, who also refers to the work of Giry. *Manuel de Diplomatie*, (1925), Paris, pp. 649-52, 835-54, discusses this institution in France.

<sup>47</sup> 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.



provisions because "merchants 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."<sup>48</sup> 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 the debtor was 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.<sup>49</sup> 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 at 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's creditors insofar as imprisonment of the defaulted debtors were concerned, and outlawry was extended to debt and actions of account.<sup>50</sup> Yet, even as late as 1543, the authorities could not break into the locked house of a debtor who defaulted on his debt. (Jones (1979), pp. 13-

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<sup>48</sup> This statute appears in *English Historical Documents*, vol. III, no. 58 pp. 457-60.

<sup>49</sup> 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).

<sup>50</sup> Plucknett (1949), pp. 324-26, 343. Nor 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.

6.) A contract enforcement institution based on individual responsibility, similar to the contract enforcement institution based on collective responsibility which it replaced, developed slowly.

#### **4. Conclusions**

Was inter-community, impersonal exchange possible during the late medieval commercial revolution? The Community Responsibility System enabled exchange that was impersonal up to one's community affiliation. It enabled exchange that was impersonal in the sense that the decision whether or not to transact among individuals who did not expect to transact again was independent of knowledge of one's past actions or the ability to transmit his identity to future exchange partners. The CRS enabled impersonal exchange despite the absence of centralized legal contract enforcement provided by a state, the finite life times of humans, the difficulties in communicating one's identity, or verifying past actions.

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

But in the long run, the CRS was a self-undermining institution.<sup>51</sup> Its own implications bred processes leading to its destruction. The CRS contributed to the growth of long-distance trade and the size, number, and heterogeneity of communities and these changes undermined its self-enforceability. It reduced the system's effectiveness, economic efficiency, and its intra-community political support. Such processes made it easier, for example, to falsify one's community affiliation, hindered verification

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<sup>51</sup> See Greif (forthcoming) on the relationships between self-enforcing, self-reinforcing, and self-undermining institutions.

of this affiliation, reduced the cost of inter-community mobility, increased the severity of the moral hazard problem, and made some members of the community worse off under the system than they otherwise would have been. By the late thirteenth century, certain members of communities sought exemptions from the CRS and communities were laboring to abolish it. Where possible, the state stepped in to provide an alternative. The European economic institutions moved closer to their current situation in which individual legal responsibility is a norm.

This study of the nature and dynamics of impersonal contract enforcement institutions in pre-modern Europe reveals the importance of understanding the inter-relationships between social, economic, and political factors in determining the set of feasible and actual economic institutions. It indicates that economic institutions supporting market exchange can be based on and positively reinforce a particular social structure. At the same time, the dependency of an economic institution on its social and political foundations implies that the inter-relationships between social, political, and economic processes influence their effectiveness and political viability.

In recent years there has been a growing interest in the extent to which communities or, more broadly, groups that assume joint liability for each others' actions, facilitate market exchange with non-group members. Much of this research has been either theoretical (e.g., Varian (1990), Tirole (1996), Kranton 1996, Ball 2001) or dealt with business associations and brand names (e.g., Bernstein 1992). Its main focus had been on the ability to foster micro-credit in developing countries based on communities and associations (e.g., Besley and Coate (1995), Bouman (1995).)

Little attention, however, had been paid to the broader role of institutions facilitating inter-community impersonal exchange based on intra-community enforcement mechanisms in contemporary developed economies. In these economies bodies, such as nations and firms, discipline their members for misconduct vis-a-vis non-members, thereby contributing to impersonal exchange. Their exact nature and the historical process through which they have emerged has not been examined. Yet, it is often argued that the ability to enter into impersonal exchange is a key to the division of labor and the rise of market economies. If this is the case, comparative study of the dynamic evolution of such

contract enforcement institutions is likely to greatly enhance our understanding of the historical process of economic development in various societies.

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