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MARKETS AND LEGAL SYSTEMS: THE DEVELOPMENT OF MARKETS IN LATE MEDIEVAL EUROPE AND THE TRANSITION FROM COMMUNITY RESPONSIBILITY TO AN INDIVIDUAL LEGAL DOCTRINE

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Executive Summary

Markets and Legal Systems:

The Development of Markets in Late Medieval Europe and the Transition From Community Responsibility to an Individual Responsibility Legal Doctrine

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The division of labor, and hence economic efficiency, depends on the extent of the market. Yet, for an individual to participate in market exchange he has to expect that those with whom he is exchanging will fulfill their contractual obligations. This paper examines non-market institutions that evolved in Europe during and following the late medieval Commercial Revolution, and which fostered inter-community anonymous exchange despite the lack of a legal system with jurisdiction over all the relevant communities. To enable inter-community anonymous exchange, European traders utilized a Community Responsibility System. If a merchant reneged on his contractual obligations toward a member of another community, the cheated merchant could use a local legal system to receive satisfaction from any member of the cheater's community. In a sense, each merchant placed the **future** trade of his community's members as a bond guarantying his conduct. A merchant who suffered losses due to his community-member's misconduct used intra-community contract enforcement mechanisms to gain compensation. Intra-community enforcement mechanisms were used to support inter-community anonymous exchange.

Local courts were in charge of confiscating goods and examining allegations of misconduct. The courts' inability to perfectly observe past conduct, and perhaps also their partiality, implied that the inter-community anonymous exchange could have been achieved only with the cost of a periodic break down of inter-community exchange. Over time communities labored to decrease the implied inefficiency by various means, such as increasing the accuracy of information and the courts' impartiality. At the same time, the growth of cities, commercial expansion, political unification, and social integration brought about by, among other factors, the Community Responsibility System, placed a strain on this system. It enabled individuals to falsify their community affiliation, and made

a cheater's departure from his own community easier. Furthermore, it made the adverse selection problem entailed by the system more severe. As a city's trade grew, a lender was less motivated to verify the credit-worthiness of a particular borrower, thereby increasing the probability of a breakdown of inter-community exchange and hence the system's inefficiency.

To mitigate the increasing deficiency of the system, merchant communities attempted to increase the cost of default to a lender, restrict retaliation, and encourage inter-community cooperation aimed at directly punishing defaulters. Differences in political structures in various regions in Europe, however, determined how the system could be altered. In England, toward the end of the thirteenth century, the king outlawed the Community Responsibility System and gradually replaced it with an institution based on individual responsibility. At the center of the new system was a special legal authority able to record contractual obligations and to register collateral to be confiscated without a trial in cases of default. Seizing collateral was no longer the responsibility of the merchant who was cheated but that of the sheriff of the area in which the contract was written. This institution required a relatively large sunk cost — the cost of establishing a somewhat complex legal instrument and extensive legal infra-structure. In Italy, however, a similar institution could not be established because of its distinct political structure. Italian communities had to continue relying on intra-community enforcement to support inter-community exchange.

The paper enhances the understanding of the historical process of institutional development in Europe and its inter-relations with commercial expansion, political structure, and social integration. It also indicates that, in contrast to the standard view, a small number of participants is both a cause of contractual problems and an important part of the institutional solution to contractual problems. In premodern Europe the intra-community social, political, and economic ties provided the basis for the operation of institutions that supported anonymous inter-community exchange. Interestingly, similar institutions are now being introduced in developing countries where credit is provided to an individual but, in case of default, all members of a particular group bear some cost. This paper indicates that in devising such institutions one has to provide the lenders with an incentive to mitigate the implied adverse selection problem and to obtain the information required to prevent costly punishments on the equilibrium path.

Furthermore, in contrast to the view that efficiency is the sole consideration in determining contractual arrangements (Williamson, 1985), this paper indicates that the nature of the non-market institutions that supports the operation of credit market determines the extent to which wealth distribution limit access to credit. Individuals who can borrow under the Community Responsibility

System might not be able to assume a loan under the Individual Responsibility System. The transition to individual responsibility in England, for example, restricted the ability of merchants with low levels of wealth to conduct inter-community anonymous exchange relative to the situation when the Community Responsibility System prevailed. Finally, while Williamson (1983) has argued that the focus of institutional analysis should be “private order” organizations, this paper points to the importance of the interactions between private order and legal systems and the importance of impartial third party enforcement.

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Abstract

This paper examines how a particular institution based on a legal doctrine of “community responsibility” enabled “anonymous” inter-community exchange during the late medieval period. According to this doctrine, an individual is liable for the contractual obligations assumed by each and any member of his community if a member defaults on his contractual obligations toward a member of another community. This doctrine provided the foundation for the Community Responsibility System that fostered inter-community exchange in various parts of Europe from as early as the mid twelfth century. By facilitating commercial expansion, however, the Community Responsibility System-fostered a ~~process of urban growth~~ and political-consolidation that led to its own demise. Urban growth increased the severity of the system’s own deficiency, namely, the adverse selection it **generates, while political integration made the identification of one’s community harder to assert.** The paper traces the transition to an alternative legal doctrine entailing individual responsibility. The implications of diverse political structures in fostering such a transition are discussed.

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Long-distance trade contributed much to the economic growth of pre-modern Europe (Lopez, 1952, 1976; Pirenne, 1956). In particular, historical studies have shown the contribution the Commercial Revolution of the late Medieval period made to the early development of Europe. The advancement of long-distance commerce led to dramatic social, political, and cultural changes in Europe and enabled regional specialization and growth. It has been argued that this period, up to the fifteenth century, was fundamental in shaping the institutional framework that permitted Europe to reach economic supremacy in later periods (Lopez, 1976; Postan, 1973). Hence, the economic institutions established to surmount the contractual problems associated with this trade have been of great interest to economic and general historians.

Until recently economic theory provided no framework within which the contractual problems inherent in long-distance trade could be investigated. Historians such as Lopez (1976) and De Roover (1963) restricted their investigations of trade organizations to forms of business association, implicitly assuming that the legal system had been able to supervise and enforce the execution of all contracts. Other scholars concentrated on the establishment of “trust” relations among traders, focusing in particular on the role of social control systems and ethics. Sombart (1953) has pointed out the importance of relationships within natural groups such as clans and tribes. Rosenberg and Birdzell (1986) emphasized loyalty relationships within a specific natural group—the family. Following Weber (1927), many scholars stressed the role of ethics in surmounting contractual problems, implicitly or explicitly emphasizing altruism (“taking pleasure in others’ pleasure”), impure altruism (internalized norms of behavior), and fear of God.

Recent developments in the theory of repeated games indicate that “trust” may be approached in a more analytical manner. In long-term relations the fear of retaliation — the fear of losing future gains from cooperation — may prevent cheating. Hence, cooperation can be sustained through the use of informal sanctions (e.g., Abreu, 1988; Fudenberg and Maskin, 1986; Klein and Leffler, 1981).

This theoretical framework has been useful in advancing our understanding of the mechanisms that mitigated various contractual problems during the Commercial Revolution. For example, Greif (1989, 1993) has analyzed the institution that governed the relations between merchants and their overseas agents in eleventh-century Mediterranean trade. To reap the benefits of employing overseas agents who had opportunities to cheat their employers, these merchants, known as the Maghribi traders, organized agency relations within a coalition whose members ostracized and retaliated against agents who violated their commercial code. Interrelated contractual arrangements assured proper incentives, while close community ties assured that each member had the information needed to

participate in sanctions.

While this study indicates that informal sanctions within a merchant's community were used to circumvent contractual problems, it also reveals the limitations of such a mechanism. Since the coalition was based on information flows within a specific group of merchants and on expectations with respect to a particular group of individuals, it could not support exchange among individuals who were not members of that group. In other words, the coalition did not support exchange relations among anonymous individuals. ("Anonymous" in the sense that they were not linked through social ties; each of them could avoid meeting the other again; and neither of them valued future trading with the other.)

Indeed, recent advances in the theory of repeated games have demonstrated the difficulties in supporting cooperation when information is limited and interactions among any pair of individuals are infrequent. Kandori (1992) and Ellison (1994) have established that if no information regarding past actions is known, then, although cooperation can be sustained, it can be sustained under very limited conditions. Specifically, to support cooperation there is a need following cheating that all players will revert to cheating each other for an identical yet finite length of time, and even then cooperation can be sustained for a limited parameter set. Hence, these studies have illuminated the difficulties of repeated interactions to support cooperation outside a limiting social setting - namely, a setting in which the "identity" of a player as established by his past actions is known.

Yet, it seems that during the Commercial Revolution cooperation was achieved **outside such a** limited social setting. It was during this time that various credit markets, insurance markets, and future markets emerged. What were the institutions that enabled such markets to evolve? How were the contractual problems inherent in these markets mitigated? The European legal system, at least prior to the thirteenth century, could have been of little assistance in enforcing contractual relations among members of different communities. The legal system was local in nature and each court had jurisdiction over a limited geographical area. A local court had ~~neither the~~ legal authority nor the means to identify a transgressor from a far away community and **bring** him, using the coercive power of the state, to **justicc**.

Milgrom, North, and Weingast (1990) have **suggested** how a local legal system without any coercive power can mitigate contractual problems inherent in these markets if trade is conducted in one locality. They argue that the use of the merchant court at the Champagne fairs can be analyzed as an institution that provided anonymous merchants with the appropriate incentives to respect their contractual agreements, provide the court with information, adhere to the court's judgments, and pay

the court's fees. Using their capacity to accumulate and transfer information, these courts supported efficient trade by being able to initiate a collective ostracism of a merchant who failed to respect his contractual obligations. Moreover, by centralizing certain record-keeping functions and effectively permitting only merchants in good standing to remain at the fairs, this institution also achieved significant economies in transaction costs. Whether this institution functioned at the Champagne fairs or not is still awaiting further research, but it is clear that it could not have supported exchange relations characterized by separation over place between the *quid* and the *quo* among anonymous merchants. Furthermore, this system entailed a high transaction cost relative to the modern legal system. Although merchants are honest on the equilibrium path, the system is based on verifying past behaviors before any merchant can enter a new contractual relation. The modern legal system, by contrast, is based on verifying past behavior only following allegations regarding improper behavior.

Did pre-modern Europe develop nonmarket institutions that enabled merchants from distinct communities, each of whom could avoid meeting again, to reap the benefits of exchange characterized by separation between the *quid* and the *quo* over time and place? This paper examines the functioning and evolution of nonmarket institutions that supported "anonymous" exchange in pre-modern Europe. Specifically, it describes the rationale, operation, and decline of the "Community Responsibility System" that fostered anonymous exchange from at least the twelfth century. This system was built on intra-community contract enforcement mechanisms which enabled **inter-**community anonymous exchange in England, Italy, Germany, Flanders, and France. It overcame the limitations on exchange found by Kandori (1992) and Ellison (1994) by using a community "label" rather than a "private past history" label, and contrary to the mechanism discussed by Milgrom, North, and Weingast (1990), it was not based on verifying the past behavior of each merchant prior to him being allowed to enter new contractual relations.

The paper proceeds as follows. Section I presents theoretically the contractual problems associated with anonymous exchange characterized with separation between the *quid* and the *quo*, elaborates on the extent to which such exchange was practiced during the Commercial Revolution, and discusses theoretically the extent to which a system based on local courts and reputation mechanism can foster anonymous exchange. Section II utilizes the insights of the theoretical analysis and information from contracts, court records, charters, and both royal and community regulations to examine the operation of a Community Responsibility System. Section III examines theoretically and historically the deficiency of this Community Responsibility System and the transition to an alternative system based on individual responsibility. Conclusions follows.

Section I: **Anonymous Exchange and the Community Responsibility System**

Theoretically, a “good” is characterized by its physical attributes as well as its location over time and space. An exchange relationship is an agreement among individuals with specific identities on property rights for goods. When an individual has to decide whether to enter into a specific exchange relationship, he or she takes into account the physical attributes of the goods to be exchanged, the distance in time and space between the *quid* and the *quo*, and the identity of the other party. In a world of perfect markets where contract enforceability is assured, the identity of the parties and the distance in time and place between *the quid* and the *quo* do not impose any restrictions on the decision whether to assume an exchange relationship, and hence any mutually beneficial exchange is feasible. (For ease of presentation, I ignore budget constraints.)

When contract enforcement is not assumed, however, the neoclassical market fails to provide an institution through which goods characterized by separation between *the quid* and the *quo* can be exchanged. The anonymous, discrete, neoclassical market is one in which “faceless buyers and sellers, households and firms that grind out decision rules from their objective functions (utility, profit) meet . . . for an instant to exchange standardized goods at equilibrium prices” (Ben-Porath, 1980, p. 4). In a neoclassical market, for example, once a borrower has received credit, he maximizes his own profit by not repaying the loan and, due to the anonymity of the market, he has nothing to lose. Aware that this is how a borrower will act, however, no lender would ever provide credit. Similarly, when their relationships are governed by an anonymous market, after receiving a payment for future delivery a supplier would fail to deliver or provide an inferior good. Anticipating this outcome, no buyer would ever pay in advance.

Hence, it is the nature of the **nonmarket** institution that ensures compliance to contractual obligations that determines the feasible set of mutually beneficial exchange relationships. In other words, the nonmarket institution determines the set of exchange relationships an individual is ready to assume, and hence it determines the gains from exchange which are feasible in the economy. The nonmarket institution that supports exchange determines how close an economy is to a “**perfect-market**” economy in which contract enforceability does not hinder trade, and any mutually beneficial exchange can be assumed independently from the parties’ identities and the distance in time and place between *the quid* and the *quo*.

For example, consider an economy in which exchange is supported **only** by social ties within a small community. Any distance between the *quid* and the *quo* is feasible in an exchange among members of that community, but any gains from transacting with members of different communities is

foregone. Markets for goods exchanged between members of different communities can not function. Similarly, if exchange is supported by an institution that secures property rights only in a specific place and time, only simultaneous exchanges are feasible, and all potential gains from separation between the *quid* and the *quo* are foregone. Gains from credit arrangements, insurance, contracts for future delivery and so forth can not be realized. A market for the relevant goods can not function.

The historical records indicate that during the Commercial Revolution markets for goods characterized by separation between the *quid* and the *quo* over time and space functioned in western Europe, perhaps for the first time since the fall of the Roman Empire. Credit and contracts for future delivery were extensively used during this period that also witnessed the emergences of insurance contracts and the bill of exchange.¹ Furthermore, historians have noted the importance of exchange relationships characterized by separation between *the quid* and the *quo* to commercial expansion, and hence to economic growth during that period.

Credit was necessary for commercial expansion in a monetary system based upon a limited supply of precious metal. Indeed, Lopez (1976) has concluded that 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). This period also witnessed the innovation of the bill of exchange in which a merchant promised future payment of a debt. A market for these bills prospered and their extensive use implicitly testifies to their efficiency. Insurance contracts were also introduced during this period and their contribution to productivity is clear. Similarly, the nature of some products precluded full delivery at the time of sale, and thus contracts for future delivery were important for trade efficiency (Postan, 1973).

Herman Van der Vee (1977) has noted that exchange relations characterized by separation ‘between *the quid* and the *quo* were frequently established among members of the same community. “Consumer credit underwent great expansion in the local economy” during the later middle ages and “merchants from me town or country regularly bought up agricultural produce from the farmers before it had been harvested against partial or complete cash payment” while “farmers and workers received credit guaranteed by their future harvest or future labor output” (p. 300). Most likely, the contractual problems associated with these exchanges were mitigated, either through a reputation mechanism as predicted by repeated game theory or through the local legal system.

¹ For a description of these developments, see Lopez and Raymond (1955), pp. 157-238 and de Roover (1963), pp. 42-118.

It is more intriguing to note, however, that the historical records indicate that exchanges characterized by separation between *the quid* and the *quo* were also frequently established among individuals from different political units at least as early as the twelfth century. Traders from Asti, for example, regularly sold Northern textiles imported from the Champagne fairs to Genoese traders for credit (Reynolds 1929, 1930, 1931; Face 1958). Credit arrangements with members of other communities are frequently mentioned in Genoa's historical records. In 1190, for example, Bonifacius de Volta and Nicola **Mallonus** of Genoa bought goods for a Piacenzan merchant for 120 lira with one year to pay. On 28 of March 1210 Rubeus de **Campo** from Genoa paid a debt of one hundred marks sterling in London on behalf of **Vivianus Jordanus** from **Lucca**.² In thirteenth century English trade, credit was used to facilitate transactions between English, French, Flemish, and German traders, as well as among merchants from different English towns (**Postan** 1973).

Contracts for future delivery among members of different communities were also common in Italy, England, and France. For example, in 1191 a Genoese merchants named Ugo **Mallonus** bought, from a Pavian and a Roman, 5 bales of fustian of **Pavia** at 40 pieces per bale, including 13 vermilion, 6 green, the rest brown and contracted to buy 3 more bales at mid-Lent and 2 more bales at Easter. In 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**.³

The contract enforceability required for such exchange relationships among members of different political units and even among individuals from distant parts of a relatively large political unit (such as England), could not have been provided for solely by the legal system. During the twelfth and most of the thirteenth centuries the legal systems that prevailed in Europe had effective jurisdiction over a very limited territorial area and hence could not support exchange relationships among merchants from distant communities. This was clearly the case in Italy with its many *fragmented* political units but it was also the case within the larger political units. The rulers of the period — in the Mediterranean and Northwest Europe — were unable, for one reason or another, to

² Obertus Scriba (1190), No. 669 and see also Nos. 138, 139. **Lanfranco** Scriba (1952), vol. 1, No. 524, p. 234.)

³ Ugo: Guglielmo Cassinese (1190-2), no. 250. With respect to England and France, see Moore (1985), and **Verlinden** (1963). Toward the end of the thirteenth century **Bruges** became the main center for trade in products.

establish a centralized legal system within their **own** nominal **domain**.⁴ Local courts that could supervise and enforce contracts executed in the areas under their authority existed throughout Europe, but for a court to support exchange relationships characterized by separation between the *quid* and the *quo* over time and space, its jurisdiction had to cover the scope of the entire transaction. Since a local court could not ensure the compliance of an alien merchant who left the court's jurisdiction, the local court could not secure property rights over space using its coercive power.

To enable efficient organization of exchange relationships characterized by separation between **the quid** and the **quo** among members of distinct communities there was a need for a nonmarket institution to secure property rights over time and space. A legal system that could secure such property rights did not exist in premodern Europe. Yet, historical evidence indicates that individuals from different localities established exchange relationships characterized by separation between the **quid** and the **quo**. How was the related contractual problem resolved? How were these contracts enforced?

Benson (1989) has conjectured that a multi-lateral reputation mechanism mitigated the related contractual problem from the tenth through the thirteenth century. "The international merchant community broke the bonds of localized political constraints to develop an international system of commercial law. They settled disputes in their own courts and backed their laws with the threat of boycott sanctions" (p. 645). A merchant honored his contractual obligations toward a merchant from **another** community fearing that otherwise all merchants would cease trading with him. Yet, the validity of this conjecture seems to be highly unlikely. Benson does not provide any historical evidence supporting it. As a matter of fact, the sheer number of merchants active in Europe during the Commercial Revolution and the information asymmetries this implies make the operation of such a multilateral reputation mechanism highly unlikely. Toward the end of the **twelfth** century the number of (only) Genoese traders active in overseas trade reached several thousand (Krueger, 1957, 1962). Thousands of individuals crowded every major fair in England (Moore, 1985), and it has been conjectured that the merchant class in Western Europe was numbered in the hundreds of thousands by 1200 (Berman, 1983).

Clearly, the interactions among these merchants may have been structured in such a way that inter-community exchange characterized by separation between the **quid** and the **quo** over time and

⁴ Plucknett (1949), p. 142; Ashbumer (1909); Postan (1973); and the information contained in Select Cases Concerning the Law Merchant. A.D. 1239-1633. 2:Central Courts.

place was feasible, based on frequent interactions among the same individual and despite the absence of legal system with jurisdiction over the whole scope of the transaction. But it may or may not have been true that pre-modern Europe developed institutions that enabled exchange among anonymous individuals. What was the case?

To consider the extent to which anonymous exchange is possible in the absence of a legal system with authority over the whole scope of the transaction, consider how exchange **efficiency** can be enhanced when only local courts exist. For simplicity of exposition, a simple model that captures the essence of the organizational problem faced by lenders and borrowers from two distinct communities is presented and analyzed. The model and much of the discussion that follows relate to credit transactions but this restriction is made for simplicity's sake. To evaluate the function of various aspects of the contract enforcement institution reflected in the historical records, I initially present a very simple model which is gradually extended to capture the possible role of various organizations (endogenous alterations) in the rules of the game.

The economy consists of 2 communities, L and B. Community L is that of lenders in which there are L lenders, while community B is that of borrowers in which there are B borrowers. Each period is divided into 2 sub-periods, and in the first sub-period any borrower, $b \in B$, can decide whether to travel to community L or not. Any borrower who travels is randomly matched with a lender, $l \in L$, and the lender can decide whether to lend or **not**.⁵ A borrower to whom a loan was made invests **the** amount in goods and travels elsewhere to trade. In the second sub-period any borrower who traded can decide whether to return with his goods to community L to repay the loan or not. There is some (low yet positive) probability that a borrower's trade venture can fail in the sense that he may not be able to repay his debt. Lending is efficient and it is assumed (ignoring the process through which the expected gain from each loan is divided) that the division is such that it is profitable for a lender to lend and a borrower to borrow if the loan will be repaid and the gains divided **as** agreed upon. If a loan was made and not repaid, the lender is worse off in that period than he would have been had he not made the loan. Furthermore, since this lender lost his capital he is unable to furnish loans in the future. Each of these infinite living players knows his own private history.

If this game is expected to repeat only once, the only sub-game perfect equilibrium is one in

⁵ For simplicity sake, it is assumed that no matter how many borrowers decide to travel, each is matched with a lender.

which borrowers neither travel nor repay a loan and each lender does not lend. Efficient exchange is not feasible. On the other hand, if this stage game is expected to repeat, the borrowers are **sufficiently** patient, and the expected frequency of interaction between each pair of lender and borrower is sufficiently high, efficient exchange can be supported as an equilibrium behavior. A borrower travels to L, assumes a loan if it is given to him, and repays it if he has never cheated the lender before, while a lender provides a loan only to a borrower who has never failed to repay a loan to him before. In other words, in this game non-anonymous exchange can be supported. Yet, even when the game is expected to repeat but frequency of interactions between each lender and borrower pair is not sufficiently high, lending is not feasible as an equilibrium **behavior**.⁶ In other words, in this model anonymous exchange is not feasible.

To consider how a court system without jurisdiction over the two communities can support anonymous lending, suppose that in each community a court exists. Since city courts during the period under consideration were governed by the city's residents, assume that each court aimed at maximizing the net present income of its community members. (Fair courts were different and the **implications of** this are discussed below.) To distinguish between the various functions of each court suppose for the moment that each court could punish (using coercive power or other means) members of its own community and could identify who **borrowed** from whom in **the** past. (**Note**, however, that the courts can not verify past actions.) When such a court exists in community L (and this lenders' court is denoted henceforth by LC), each lender can complain before it if he was cheated by a borrower. LC can then inform the court of community B (and this borrowers' court is henceforth denoted by BC) regarding the complaint. BC can decide whether or not to punish the individual about whom the complaint was made and can either compensate the lender who complained or not.

To support anonymous exchange it must be the case that whoever was cheated is motivated to complain, and after compensation exchange will continue. For a lender to complain it must also be the case that complaining yields positive expected income. If a lender who complained expects positive compensation, however, he would find it optimal to complain even if he was not cheated.

⁶ The "contagious" equilibria studied by Kandori (1992) and **Ellison** (1994) are not feasible here since the game is a **one-sided prisoners' dilemma** game and not a two-sided prisoners' **dilemma** game. Specifically, to initiate a contagious equilibrium, a lender who was cheated should cease lending and a borrower who cheated or who was denied a loan should cease repaying loans. Yet, in the first period after cheating has occurred, it can not be optimal **for the** lender not to loan again. If the lender's strategy calls for giving a loan in the period following one in which he was cheated, then the borrower's strategy to keep on cheating after the initial cheating is not optimal.

Expecting this to be the case, borrowers would refrain from borrowing so that they would not be subjected to the accusation of wrong doing. Anonymous exchange can not be supported by the above court system since it creates a divergence of incentives between the behavior optimal for the community as a whole and the behavior optimal for each of its members.

To mitigate this divergence of incentive problems LC should have the ability to verify whether a complaint is valid or not, and its strategy should call for filing a complaint with BC only if cheating has really transpired. Yet, this is not sufficient to support anonymous exchange. In efficient exchange the BC strategy should call for punishment following a complaint, and that after the punishment exchange continues. But a strategy that calls for such behavior can not be an equilibrium strategy. Since BC can not confirm the allegation, LC would find it optimal to furnish invalid complaints.⁷ Efficient anonymous exchange requires that both BC and LC be able to verify the complaints.

When two courts have to verify the validity of complaints; the information available to each of them determines the nature of the resulting possible equilibrium. Consider the case that the information available to the court is “subjective” in the sense that when an accusation is made there is some positive probability that the LC would conclude that cheating had indeed occurred while the BC would conclude that cheating had not occurred. If this probability is low enough then anonymous exchange is feasible as an equilibrium behavior. The related strategy calls for borrowers to travel and borrow and for lenders to lend as long as a “trade war” has not occurred. During a trade war, no borrower travels or borrows and no lender lends. The LC strategy is to verify any complaint about cheating, demand compensation from BC if the complaint was found valid, and to repay the compensation, if given, to the cheated lender. If and only if BC refuses to compensate would the LC confiscate sufficient goods from borrowers present in its jurisdiction and a “trade war” occur for some T periods.

The above strategy combination can support anonymous exchange when the probability exists that the courts would differ in their assessment of a complaint and the frequency of bankruptcy are sufficiently low, and a lender who was not paid and complained is better off by complaining despite a possible trade war. Anonymous exchange can be supported by the above strategy combination since a borrower finds it too costly to cheat, given that he can be found guilty by the court and the possibility of a trade war exists. At the same time, a lender is prevented from presenting false accusations

⁷ Ceasing to trade for a number of periods following an allegation does not mitigate this problem.

because of the court's ability to verify the complaint and the cost of a trade war. Note, however, that because courts have imperfect information on the equilibrium path cooperation breaks down from time to time. Accusation and confiscation are made and trade war can occur despite the fact cheating does not occur. These periods of break down of cooperation are required to sustain cooperation. If, when the LC observes nonpayment and does not request compensation, the borrowers will find it optimal to cheat. Similarly, if the BC did not observe cheating when the LC demanded compensation but did compensate, the LC is motivated to request compensation even when it did not observe cheating. The role of trade wars is to increase the cost of false accusation or refusal to compensate to both communities.

Finally, note that the frequency of trade wars depends on the quality of information. The more objectively verifiable the information available to the court is, the less often trade wars will occur. Yet, even if cheating can be objectively verifiable, trade wars can occur when the above model is extended to include the possibility of having more than two trading communities. If, as is assumed so far, L is the only source of loans for B, the threat of losing the ability to obtain future loans may be sufficient to induce BC to verify cheating and to punish cheaters. When borrowers can obtain credit or enter contracts for future delivery in several alternative locations the cost of losing future trade may not be sufficient to support exchange. In this case the LC may take action aimed at increasing the cost of not punishing to the BC. Specifically, in the current model, if the LC can not confiscate the goods of the borrower who cheated (since he is not present in its jurisdiction), it can confiscate the goods of (some) borrowers present in its domain (who did not cheat) and can hold them hostage while awaiting full compensation.

The above discussion indicates that in the absence of a legal system with jurisdiction over the whole scope of the transaction, anonymous exchange can be fostered by a system based on **local** courts, each with the ability to verify allegations *ex post* and with the objective of maximizing the net present value of the future trade of the merchants over whom they have jurisdiction. These courts have to have the ability to punish cheaters and initiate confiscation, while the nature of information available to the courts determines whether or not the equilibrium will be characterized by periodic breakdown of cooperation.

Section II: Anonymous Exchange and the Community Responsibility System

It is widely recognized that, by and large, a merchants' community during the Commercial Revolution had various means to impose its will on its member merchants. Greif (1989) has examined the informal sanctions which fostered contract enforceability in a particular merchants' community during this period. Greif, Milgrom, and Weingast (1994) have presented evidence that other means were used to insure "solidarity of incentive" within merchants' communities. These means included coercive force, legal systems, fines, exclusion from services provided by, or privileges granted to a merchants' community, and so forth. What has been less widely recognized is that the ability of each merchants' community to impose its will on its member merchants was used to foster inter-community anonymous exchange. Indeed, the historical records clearly reflect the operation of a "Community Responsibility System" that supported such **exchange**.⁸

The operation of such system is indirectly reflected in the events surrounding the 1155 visit of me Emperor Frederick Barbarossa in Bologna. During this visit the students of Bologna's famous law school asked for his help against the city in one particular matter, namely, that the city would no longer use them as a mechanism to collect debt from other cities.⁹ The first direct mention known to me of the operation of a Community Responsibility System in Italy in supporting inter-community exchange relations appears in the earliest cartulary preserved in the Genoese archive, that of Giovanni Scriba. It indicates that shortly prior to 1164 a Genoese trader, Amicus Zostro, had received a loan from Xecha Bohadie, a Muslim trader from Tripoli. While Amicus had evidently arranged to pay Xecha's brother or son in Sicily, Xecha claimed that no such payment had been made. The matter was not brought to court, but in July 1164, following Xecha's assertion that payment had not been made, Amicus sent six **cantras** of copper along with an agent named Baldezonus from Genoa to Tripoli. 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 (Giovanni Scriba. no. 1245; 22 July, 1164).

It should be noted that the interaction between Xecha and Amicus do not reflect all the elements which are needed for the operation of the Community Responsibility system. Yet, it is clear that both parties understood that Xecha was able and willing to extract his debt from Genoese traders

⁸ Among the scholars who have noted the operation of this system are Santini (1886); Select Pleas in Manorial and Other Seigniorial Courts, Reigns of Hem-v III and Edward I, p. 134-5; Arias (1901); Lopez and Raymond (1955); Moore (1985). p. 119.

⁹ Munz (1969), p. 77.

other than Amicus. Such an action in the Muslim world of the time had, most likely, to be taken with the permission of the local court. Furthermore, it is clear that this action, if taken, would be so costly to Amicus that just the threat of taking it was sufficient to induce him to pay. Yet, the role of the court, as reflected in this document, theoretically is not **sufficient** to enable the operation of an efficient Community Responsibility System. There seems to have been no way for Amicus to objectively demonstrate to other Genoese that he paid his debt, nor is it mentioned that a court in Tripoli could have verified Xecha's allegation that he was cheated. Indeed, the document may reflect a "divergence of incentive" problem, as Xecha might have been able to collect his debt twice.

Other Italian historical records from the late twelfth and early thirteenth centuries also suggest that, as predicted by the theory, the courts' limited ability to verify claims submitted by merchants in disputes related to inter-community exchange led to a frequent collapse of cooperation and costly trade wars. Arias (1901, pp. 15-8) has noted, for example, that during the later part of the twelfth century and the earlier part of the thirteenth, the city of Florence was negotiating treaties aimed at limiting the number and extent of trade wars. A 1184 agreement between Florence and Lucca suggests that by increasing the cities' ability to verify cheating by their authorities and **forcing** defaulters to pay, trade wars or retaliations could be partially eliminated. The agreement involved the selection of two **men** in Lucca with the task of requiring from their co-citizens the restitution of goods reclaimed by Florentines. Special commercial treaties similarly aimed at avoiding and suppressing commercial retaliations by increasing the legal authorities's ability to enforce contracts, were signed by Florence with Bologna (1203-16), Faenza (1204), Prato (1212), Pisa (1214), Volterra (1224), San Gimignano (1225), and Città di Castello (1232).¹⁰ In these treaties special attempts were made to minimize retaliations by increasing the ability of a community to ensure appropriate compensation for an alien merchant and by placing restrictions on one's ability to initiate **retaliation**.

Furthermore, the historical records reflect an attempt to confine retaliations only to **inter-community commercial matters**. A 1325 **statute** from Florence, for example, explicitly enumerated the cases where it was possible to grant retaliations which were losses in currency or goods, damages to properties, extorted taxes, or personal detention, and it excluded cases of personal bodily offenses." Such restrictions suggest that retaliations were not simply an act of revenge, but a calculated action taken to foster future cooperation. This is also suggested by the fact that it was

¹⁰ See discussion in Santini (1886), pp. 166-8.

¹¹ Santini (1886).

often the case that after retaliation lasted for a period, a city would announce a “suspension” of this act. In other words, exactly as predicted by the theory, retaliations were not necessarily carried out until full compensation was achieved, but for a time sufficiently long to inflict costs to the other side. Furthermore, at times suspension excluded those accused of cheating in inter-community exchange, reflecting an attempt to improve on the operation of the simple Community Responsibility System by imposing the cost of punishment exclusively on those who defaulted on their contractual obligations.¹²

Theory suggests that the number and length of retaliations decrease in the quality of information available to the courts. Indeed, various commercial treaties reflect the view that retaliation was unavoidable when not enough information was available. In the treaty between Pisa and Florence signed in 1214, it is specified that retaliations would follow if the judges were unable to settle the dispute. In 1238 Beatrice, wife of Marcovaldo, requested a retaliation against the properties of the people and Commune of Pisa, for a sum of 2,000 and an interest of 750 dinar *piccoli* of Genoa, to be paid by the heirs of Ubaldo, Viscount and Torritano of the late Lamberto and by two Pisans who had posted a guarantee for them. The retaliation *was* granted by *the podestà* after the Commune of Pisa, which had been asked for restitution (according to the Statute), denied cooperation.¹³ It is interesting to note that the treaty between Pisa and Florence reflects a recognition of the substitution between legal judgment and retaliation in preventing cheating rather than in necessarily fully compensating the cheated individual. The treaty had a provision specifying that if retaliation was to occur the merchants of the other communities would be allowed 40 days to leave town.

This provision, however, casts doubt as to whether any compensation could have been obtained through retaliation. Yet, it seems that during retaliations — even a lengthy one — compensation was obtained. For example, in 1236 *the podestà* of Florence, **Rolando Rosso**, granted the right of retaliating against the people and the Commune of Volterra to the legal representative of three Florentines for a value of up to 123 lire in Pisan dinars. The legal representative pledged to bring all the booty to the Consoli di Calimala; the grant was renewed the next year by the new *podestà*, but the men were not required to bring the booty to the Consoli. The fact that there a booty was still expected during the second year of the retaliation suggests that even during a retaliation

¹² For a discussion of suspension, see Arias (1901), pp. 177-88.

¹³ Santini (1886), p. 165.

phase revenues could be generated. Consistent with the insight that retaliations would be of finite length, it seems that this dispute was eventually settled **peacefully**.¹⁴

If retaliations reflect the inability of two communities to objectively verify the conflicting claims made by their members, rather than the communities' desire to gain compensation or to take revenge, costly retaliations might be avoided to some extent through the use of arbitrators. Indeed, at times Italian cities attempted to use arbitrators in settling their dispute. In 1234 Volterra and San Gimignano submitted themselves to arbitration by the council of Florence in an attempt to end a state of retaliation between them, but it seems that this arbitration attempt **failed**.¹⁵

Theory predicts that if the per-period cost of retaliation to the two communities is higher, retaliations would be used less frequently and would last for a shorter period of time. Indeed, as the trade of the Italian cities increased, the process through which retaliation could have been initiated became more regulated and lengthy, involved the decisions of additional legal authorities, and were approved only after better information was gathered. In Florence until 1250, to initiate a retaliation a request had to be made to the Curia **del podestà**, who made his judgements in the presence of the Consoli di Calimala, who seemed to play a small role. In the 1303 edition of the Statute of the Arte di Calimala, it is stated that the Consoli may consult the Consiglio **Speciale**, or the Generale, regarding retaliations to be granted to Florentine merchants, but that they have to work towards the settlement of existing disputes. They also had to coordinate, as soon as they took office, with the Captains of the 7 **Arti Maggiori** to ask the Consigli Cittadini to revoke any retaliation granted without their approval.

In later years the regulations became even more strict. The 1325 Statute required **the podestà** to make two requests to the Commune to approve a retaliation and to wait one month before enacting retaliation. The 1415 Statute details the regulation of retaliations not under the heading '**podestà**' but under the heading of 'Trattato dei Consoli delle **Arti** e dei Mercanti.' Retaliations were to be granted exclusively by the approval of **the** Consigli **del Popolo** and **del** Commune. It was also forbidden to retaliate against foreign rectors, officials or against traders coming to Florence to sell **edibles**.¹⁶

Evidence regarding **the operation of the Community Responsibility System** is **not confined** only to Italy. We know, for example, that it was practiced also in the Champagne fairs and their

¹⁴ Santini (1886), p. 165.

¹⁵ Santini (1886), p. 168.

¹⁶ Santini (1886), pp. 168-72

regulation provides perhaps the best example of using the threat of exclusion from future trade, rather than confiscation *per se* to induce **restitution**.¹⁷ In 1260 the wardens of the Champagne fairs had the right to pronounce a sentence of exclusion from the fairs, and this exclusion extended to **the** compatriots of the defaulters if the judicial authorities of their own town or seigniory did not compel them to **fulfil** their obligations.*

It is interesting to note that the Community Responsibility System itself gave rise to trade in fairs or, more broadly, in trading centers as was common in Europe during pre-modern times. Given the Community Responsibility System, a fair in which many communities trade has a relative advantage in enforcing inter-community exchange relations. Organizing trade in a fair increases the cost for a community of being excluded from trading in it, relative to a situation in which that community would be excluded from trading with one particular community. Hence, when trade is organized within a fair, a community has better incentives to increase its ability to supervise the conduct of its members and to be able to verify complaints made by, or with respect to, its members. Hence, the length and severity of retaliation is reduced. Indeed, in the Champagne fairs and Bruges — the trade center that replaced these fairs as the prominent trade center in western Europe — each merchants' community had a representatives with legal authority over its members.

Similar to the situation in Italy, in England the Community Responsibility System functioned from at least the early 12th century. In his charter to London given around 1130, 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.”¹⁹ Similarly, a statement made by King Edward in 1266, with respect to the German traders of Lubek, reflects how the Community Responsibility System was supposed to function. The king granted “to his burgesses and merchants of Lubek, that during the

¹⁷ Verlinden (1963), p. 131. **It may have been that since**, as discussed below, the fairs did not have a merchant community of their own, there were no assets of the cheater's community that they could confiscate without hurting members of another community.

¹⁸ Most likely this right was held previously by the count and the ecclesiastical jurisdictions.

¹⁹ English Historical Documents, vol. II, pp. 1012-3, and see discussion by Stubbs in *Selected Charters and Other Illustrations of English Institutional History from the Earliest Times to the Reign of Edward the First*, p. 128-30. In this charter Henry exempted the Londoners from the Community Responsibility System, an issue which is discussed below.

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 Lubek, by whom the said town is governed fail in justice to the men of the king's land and power, and this can reasonably be proved. ²⁰

That the Community Responsibility System actually functioned in England is well reflected in various court cases. In 1270, for example, in the court of St. Ives in England "Gottschalk of **Almain**, burgher of Lynn, complains 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 losses by 1270 amounted to about 200 marks. Yet, the countess of Flanders refused to make justice. Accordingly, Gottschalk requested the court to confiscate the goods of members of the above communities present in the **fair**.²¹

Since England, unlike Italy, was one political unit, the definition of who is a member of what community required legal definition. The ruling was that members of the same merchant guild, rather than residents of a particular borough, were held responsible for each **other**.²² As had been noted by Maitland (1889) ". . . every member of the guild severally guarantees the debts contracted by every member in the way of his trade — is subsidiary liable for those debts. You are a member of the **commonalty** of X: — it is a course of action for me against you that A, who is your 'peer and parcener,' your 'fellow commoner,' [or] 'at **scot** and **lot**' with you, has contracted a trading debt with me and has not paid it" (p. 134).

The English historical records also indicate that fair courts **respected** contracts entered into in other locations in England. For example, in 1293 Sir William of Hereford, citizen of London, **complained** in front of the court of St. Ives fair that Ralph of Lyons did not pay him a debt contracted

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

²¹ **Pro SC 2/178/93: 14 May 1270** published in Select Cases Concerning the Law Merchant: A.D. 1270-1638, 1: Local Courts, pp. 9-10.

²² Notwithstanding the fact that in many towns the mercantile and the municipal organizations were identical since the merchant guild was the governing body of the borough.

upon in the Boston fair.” Most likely, these courts respected each other’s contracts for three reasons. First, courts were paid by the case, and hence it was profitable for them to adjudicate any dispute. Second, failing to follow a procedure declared by the king as obligatory could have been costly? Finally, since the courts themselves interacted frequently, a court’s failure to enforce contracts entered into by other courts would probably have resulted in one court refusing to enforce the other’s contracts. This is a costly outcome given that merchants would have probably been less likely to frequent a fair whose contracts could not be enforced in other localities.

The community-responsibility institution that governed exchange relations among anonymous traders during the Commercial Revolution was a three-tier institution. The first tier was individual merchants; the second was their communities; and the third was a local court. By enabling an individual trader to place as a bond the property and future trading of members of his community, the community-responsibility institution succeeded in surmounting the contractual problems associated with exchange relations over time and space among traders from different localities.²³ The community-responsibility institution combined the attractive elements of the models and equilibria suggested by Kandori (1994) and Milgrom, North, and Weingast (1990). Kandori has pointed to the need of a constantly updated “label” that transmitted information which was difficult to obtain, namely the contractual performance of an agent in the past. Milgrom, North, and Weingast have suggested that economizing could be achieved by letting a central authority conserve and transmit information about all the transactions in the economy.

The historical evidence indicates that the community-responsibility institution strategically linked traders in supporting an equilibrium in which the system could recover after cheating had occurred. The institution was based on “labels” — not labels that contained information about past actions, but “community” labels that did not require updating. Local courts were responsible for producing and storing information. Economizing on information costs was achieved by transmitting

²³ Selected Cases Concerning the Law Merchant, vol. III, p. 62.

²⁴ For example, a certain James complained in the fair of S. Botulph in England that several merchants of Brussels had cheated him. After verifying his complaint, the fair bailiff confiscated wools belonging to the merchants from Brussels present at the fair. Yet, after a while the “bailiff of the fair aforesaid, had wrongfully delivered sacks of the wool aforesaid to the aforesaid merchants [of Brussels] to the grave damage and manifest loss of James himself, inasmuch as the same commune has not yet satisfied him in respect to the debt aforesaid. ” Accordingly, James had entered a pleas before the “lord king” of England. Selected Cases Concerning the Law Merchant, vol, II, no. 7, pp. 11-12.

²⁵ On the role of bonds in economics, see Williamson (1985).

information only about transactions in which cheating had allegedly occurred (while in equilibrium the number of cheating cases is negligible).

The novelty of the community-responsibility institution is in that it took advantage of the repeated nature of the interactions among members of a specific group of traders to support exchange relations among traders from different communities who interacted infrequently, despite the absence of any legal authority with jurisdiction over the whole scope of the transaction. It was this institution that facilitated the Commercial Revolution by enabling contracts for future delivery and credit arrangements to be established between strangers.

Section III: **The Deficiencies of the Community Responsibility System and its Demise.**

While the above discussion emphasized the efficiency enhancing features of the Community Responsibility System and the attempts made to increase this efficiency, this system had its limitations. Because of its dependence on objective verifiability of contractual obligations, its function was confined only to exchange relations in which conduct could be objectively assessed. Hence, this system was applied to credit transactions and contracts for future delivery, but was not applied to agency relations in which an agent transacted with a merchant's capital in trade centers, other than the one in which the principal operated. Since trade was characterized by much **complexity** and uncertainty, an objective assessment of an agent's conduct was an intricate matter. Thus, agency relations during the Commercial Revolution were governed by institutions other than the Community Responsibility System. (See, for example, Greif, 1989, 1994.) This limitation of the Community Responsibility System is a deficiency only relative to the first best in which all contracts can be enforced, and it reflects the limits of the ability to measure contractual performance.

Another **deficiency of the Community Responsibility System was that it increased trade** uncertainty to honest merchants. When inter-community exchange is governed by the this system it is possible for a merchant who has always fulfilled his contractual obligations to bear losses due to another merchant's negligence or because, in a case of dispute, the appropriate courts can not agree on who is liable. This increase in uncertainty is not only due to confiscation of goods. When one city announces retaliation against another, merchants of both communities would refrain from trading in **each others' cities** and **merchants** from each community who are residents of the other would **leave** their residence with their **merchandize**. The trade of both communities was disturbed since merchant

of the retaliating community fled the city on which retaliation was imposed expecting a **confrontation**.²⁶ Indeed, theory implies that such a cost to both communities was required to sustain inter-community cooperation. Yet, the magnitude of these costs were **difficult** to control and “over punishing” was a possibility.

Indeed, communities attempted to contain these costs and to decrease the frequency of retaliation through various means. Statutes issued by Countess Margaret in 1252 regarding foreign merchants visiting the fairs of Flanders ruled that **only** a debtor or his guarantors could be imprisoned for debt. From other members of the debtor community only goods could be confiscated.” In 1251, Genoa contracted with Florence to warn its merchants at least two months prior to a retaliation to enable them to leave Genoa in an orderly **manner**.²⁸ To reduce the uncertainty an individual merchant faced while still retaliating, Italian cities frequently contracted to use taxation instead of confiscation during periods of **retaliation**.²⁹

To reduce the need to retaliate, cities attempted to increase the cost of renegeing on one’s inter-community contractual obligations. In Italy, for example, a treaty was signed in 1279 between Florence, Genoa, and most of the towns of Tuscany, Lombardy, Romagna and **Marca** Trevigiana. This treaty established that merchants fleeing with other people’s money could be imprisoned in the territories of the signing cities and be kept there and charged by their **creditors**.³⁰

Some boroughs in England took extraordinary steps to give satisfaction to foreign creditors who could prove that a member of the borough had failed to repay his debt. The authorities paid the lenders out of the borough’s funds, taking a double indemnity from the local **debtor**.³¹ Yet, in England increasing the cost of default by such means could have only limited impact since during this period the law precluded selling one’s house or real estate to repay a loan or even punish a borrower who defaulted by imprisonment. Hence, not much could be done against a debtor in general, or one

²⁶ For this behavior and its costs in Italy, see Arias (1901), pp. 156-8.

²⁷ Verlinden (1979), p. 135.

²⁸ Arias (1901), p. 52.

²⁹ 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 to settle a matter of retaliation. Arias (1901), p. 165.

³⁰ Arias (1901), pp. 99-100.

³¹ Plucknett (1949), p. 137.

who could not repay his debt due to financial **difficulties** in particular. Furthermore, the legal authorities were usually unable to locate an individual who escaped from his place of **residence**.³²

What is less obvious is that to reduce the need of retaliating, it was necessary to increase the cost of defaulting, not only to a defaulting borrower, but also to a potential lender. This was the case since the Community Responsibility System itself generated incentives that increased the probability that a merchant would have to bear a loss due to others' negligence, potentially leading to retaliation. Specifically, the Community Responsibility System gives rise to an adverse selection problem.

This increase in probability can not be captured in the model sketched above since it assumes that all contractual relations are identical. In reality, however, this is not the case and some trade ventures may have a higher probability of failure than others. When this is the case, whether the contractual relations governing the credit transaction through which trade ventures are financed is the Community Responsibility or not determines a lender's incentive, with respect to verifying the trade venture's probability of success and the borrower's ability to pay if this particular trade venture fails. Under the Community Responsibility System the future trade of all members of the borrower's community is the *de facto* collateral for the loan, and hence a lender has a relatively weak incentive to verify the borrower's ability to repay the **loan**.³³

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

³² As late as the 17th and 18th century, "a felon could consider himself distinctly unlucky if he was captured by the authorities. Policing was left largely in the hands of the local community. The maxim was not efficiency, but financial economy, making the system of public order pay for itself. A king with no proper permanent army, who could not pay the members of his own household with regularity, was not likely to visualize or finance a proper police system." Bellamy (1973), p. 201.

³³ This link is not technologically given but seems to be due to two concepts. First, that the Community Responsibility System implied that all members of a community are responsible for each member's **inter-community** contractual obligations. Second, it reflected the fact that the concept of bankruptcy, as we know it today, did not exist. With respect to the historical evolution of this last concept, see Jones (1979). Almost one hundred years prior to the invention of Information Economics, Arias (1901), pp. 166, noticed this adverse effect of the Community Responsibility System.

retaliation would not be **permitted**.³⁴

Mitigating, to some extent, the adverse selection implications of the Community Responsibility System was possible by increasing the cost of default to the lender. Indeed, in Italy and England alike, the authorities seems to have come, over time, to recognize this problem and labored to increase the cost of default to the lender. It was achieved by demanding that, prior to the lender requesting justice from the legal authorities of his own community, he had to travel to the other community and make his case there. Only if justice was not provided, could he apply to his community court requesting retaliation.

For example, the city of Cambridge received a charter and the right to establish a merchant guild as early as the middle of the twelfth century. Yet, only a charter given to the city by King Henry III in 1256 states that “our beloved burgesses of Cambridge . . . may forever throughout the whole of our land and dominion have this franchise, namely that they themselves or their goods, wheresoever found in our dominion, shall not be arrested for any debt of which they shall not be the sureties of principal debtors, unless perchance **the** debtors shall be of their commonality and power and shall have **whereout** 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 be reasonable proven” (Maitland and Bateson, 1901, pp. 14-5).

Another deficiency of the Community Responsibility System seems to have become especially problematic in England due to the country’s process of political and commercial integration. Specifically, it became more difficult to assess **the** “community label” of various merchants. Indeed, in English thirteenth century court records, this problem is well reflected. As Moore (1985) has noted, “this procedure [of the CR] 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) has 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 to falsify one’s “community identity” was made easier by the **growth** of trade which hindered the operation of the Community Responsibility System.

³⁴ Arias (1901), pp. 166-7.

The ability of individuals to falsify their identity and strategic use of this ability is well reflected in a case brought before the court of the fair of St. Ives “on Wednesday next after the feast of S. John before the Latin Gate in the eight year of Abbot William,” which happened to be the year 1275.³⁵ On that day William and **Amice** of Fleetbridge brought a complaint against Thomas Coventry of Leichster. But since he was not present at the fair, several other of Thomas’ “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 sack of wool he bought three years ago from her (late) father, who lived in Leicester, and which Thomas had been supposed to pay in the following year but had failed to do so. To prove their case, William and **Amice** produced a tally from the court of **Leicester**.³⁶

The 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 of the communality of Leicester. He did claim, however, that William and **Amice** had brought a false accusation against him, causing him “no small damage,” most likely by the response of the merchants of Leicester whose goods were confiscated by the fair court. William and **Amice** could not defend themselves but claimed not to be under the jurisdiction of the court since they were from London.

The ability to falsify one’s “community identity” was, most likely, made easier with the **growth** of inter-community trade fostered by the Community Responsibility System. Similarly, while trade fostered urbanization, the adverse selection problem entailed by the Community Responsibility System is more severe the larger is the borrower’s community. This is the case, since the larger the borrower’s community is, the more certain it is that the lender would be able to recover, at low cost, a debt in a case of default. Hence, the growth of trade and the merchants’ community that were aided by the Community Responsibility System, diminished its effectiveness and increased its

³⁵ 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 TTT and Edward I. pp. 145-6 155.

³⁶ On the tally and its use, see Select Pleas in Manorial and Other Seigniorial Courts. Reigns of Henry III and Edward I. p. 133.

economic costs.

In England and Italy the response to these problems was an attempt to abolish the Community Responsibility System. Yet, due to the diverse political systems of these two areas, the nature of these attempts was different as well as their degree of success. The large Italian cities attempted to coordinate a transition away from the Community Responsibility System. 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 anonymous 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**.³⁷ To stress the value of this treaty, it should be noted that “it is the only league of towns in these times . . . with the goal to safeguard some common [commercial] interests” (Arias, 1901, p. 100).

The extent to which this transition was successful, in both ending retaliation and enabling inter-community anonymous exchange, should still be examined empirically. It seems that complete elimination of *de facto* retaliation was not achieved, but since it became more difficult to initiate retaliation, inter-community anonymous exchange was less frequently established. Indeed, at least with respect to Genoa by the 14th century, “capital and credit were more and more concentrating with the few” (Lopez, 1964, p. 61), suggesting that inter-community, non-anonymous exchange may have become more important.

In England, the kings seem to have responded to the increasing strain on the Community Responsibility System by exempting large trading communities from it. London, in the twelfth century had about 25,000 residents and hence was the largest city in England, and large by the standard of Western Europe at the time.³⁸ It seems to have been the first English city to enjoy a grant providing its merchants immunity from the Community Responsibility System. 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

³⁷ The latin version of this treaty is contained in Arias (1901), pp. 400-404.

³⁸ Bairoch et. al. (1988), p. 33.

at the St. Ives court that they could not be judged by that court. Yet, Londoners had the right to apply the principle of community responsibility to residents of other cities. "Let all debtors to the citizens of London discharge their debt, or prove in London that they do not owe them; and if they refuse either to pay or to come and make such proof, then the citizens to whom the debts are due may take pledges within the city either from the borough, the village or the country in which the debtor lives."³⁹ Exemption from a Community Responsibility System is beneficial to one community only if this exemption is unknown to lenders from other communities, or its traders can not benefit from borrowing from members of other communities, or that its nature is such that falsification and adverse selection make it worse off under the Community Responsibility System.

Later, the king provided other large communities with various exemptions from the Community Responsibility System. (In Flanders the city of Ypres was the largest city and about twice the size of London.) Indeed, King Henry assured the merchants of Ypres, sometime between 1225 and 1232, 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**, it seems that the king was aware of the need to induce the community of Ypres to ensure that any merchant against whom a complaint was brought would receive justice. 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."⁴⁰

The king's statement does not indicate what would happen if a merchant from Ypres refused to come to stand before the king's court. **The wording suggests that it was the responsibility of Ypres** to make sure that an accused merchant would appear before the court. Most likely it was understood **that if Ypres failed** to induce a merchant to appear before the king's court, the community as a whole would bear responsibility, and hence this agreement reflects an alteration of the Community Responsibility System rather than its abolishment. It also suggests that the agreements among the Italian cities ultimately were sustained by community responsibility. It was still the case that fear of losing the gains from future trade motivated a community to ensure the conduct of each of its

³⁹ English Historical Documents, vol. II, no. 270, pp. 1012-3.

⁴⁰ Calendar of the Patent Rolls Preserved in the Public Records Office, 1232-1339, p. 460.

members in inter-community exchange, thereby enabling each merchant to commit.

Yet, with respect to communities within England, the king could have initiated a departure from the Community Responsibility System. That such a departure could have enhanced efficiency by 1271 is suggested by entries in the Close Rolls. In these chancery rolls a debt could be registered and since the process placed the transaction under the jurisdiction of the Common Law, property and goods could be placed as **bond**.⁴¹ While prior to 1271 few debts were enrolled each year, their number rose substantially by 1271 despite the high cost involved.”

In 1275 the king, Edward I responded to the stress on the system reflected in the court cases and the Close Rolls by issuing the Statute of Westminster 1. This statute 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.”⁴²

The statute of Westminster I did not establish any alternative institution for contract enforcement and the results — in terms of inability to contract — were apparently **severe**.⁴⁴ 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” (English Historical Documents, vol. III, p. 420). While a statute’s words are not necessarily a reflection of reality, there is no evidence, known to me, that the king was acting out of any motive other than improving contract enforcement. The fact that a similar process of abolishing the Community Responsibility System — although constrained by a distinct political system — also transpired in

⁴¹ See discussion in Moore (1985), p. 120 n. 105.

⁴² **Close Rolls of the Reign of Henry III, 1227-1272. 14 Vols. London: His Majesty’s Stationery Office. years 1256-1272. There is one entry for 1257; four for 1269; and 43 for 1271. For the high cost for merchant of using the common law court, see Plucknett (1949), p. 137.**

⁴³ English Historical Documents, Vol. III, p. 404.

⁴⁴ **Although the merchants could have used, as mentioned above, the costly and time consuming common law court.**

Italy strongly suggests that the Community Responsibility System, although effective, was becoming very costly. Edward seems to have abolished the system, recognizing its cost, only to realize later its benefits.

The alternative contract enforcement institution established by Edward I may have been influenced by a similar institution enacted in France. This conjecture gains some support from the observation that in England it was first established in the Channel Islands in 1279, and only later, in 1283, in the rest of England.⁴⁵ The statute of **Acton Burnell** of 1283 established this alternative contract enforcement institution by enabling a creditor and debtor to appear (although they were not required to appear) before the mayors of 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 devisable **burgages** that were placed as bond. Recovering the loan through a forced selling of the bond, if necessary, was the responsibility of the mayor or sheriff in whose jurisdiction the bond was to be found. If the proceedings from the bond were not **sufficient** to cover the debt, the debtor would be **imprisoned**.⁴⁶

Despite its intent, the statute of **Acton Burnell** failed to provide an appropriate contract enforcement mechanism, and two years later, in 1285, the Statute of Merchants had altered some of its provisions because "merchant complained to the king that sheriffs misinterpreted his statute and sometimes by malice and by misinterpretation delayed the execution of the statute to the great detriment of the **merchants**."⁴⁷ The provisions of this statute indicate the difficulties in providing the appropriate incentives to those who were supposed to administrate 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 imprisoned until the matter was settled, but he was given three months to

⁴⁵ See discussion in Patourel (1937), p. 97 who also refers to the work of Girý. 1925. Manuel de Dinlomatísue, Paris, pp. 649-52, 835-54, who discusses **this** institution in France.

⁴⁶ 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.

⁴⁷ This statute appears in English Historical Documents, vol. III, no. 58, pp. 457-60.

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**.⁴⁸ Finally, the ability to register and seal contracts subject to this procedure would be made available to merchants in towns other than London, York, and Bristol, and in every fair.

The procedures established in England between 1283 and 1285 provided the basis for a contract enforcement mechanism that enabled anonymous exchange based on a central legal system and individual responsibility. The system did not mature overnight, and several improvements were made over **the years** to enhance its functioning. For example, in 1352, the common creditors were ranked with the crown insofar as imprisonment of the defaulted debtors were concerned, and outlawry was extended to debt and actions of account.” Yet, even as late as 1543 the authorities could not break into the locked house of a debtor who defaulted on his **debt**.⁵⁰ A contract enforcement institution based on individual responsibility, similar to the contract enforcement institution based on collective responsibility which it replaced, developed slowly.

Conclusions

To enable inter-community anonymous exchange, European traders during the Commercial Revolution applied the principle of community responsibility. It enabled each merchant to place as a bond the future trade of all the members of his community, If a merchant reneged on his contractual obligations toward a member of another community, the latter merchant could receive satisfaction from any member of the other community. That member, in turn, used the contract enforcement mechanism of his own community to get compensation from the merchant who reneged on his contractual obligations. Intra-community enforcement mechanisms were used to support **inter-**community anonymous exchange. Local courts were an integral part of the Community Responsibility System. These courts that were in charge of confiscating goods also enabled a

⁴⁸ 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).

⁴⁹ **Plucknett (1949)**, pp. 324-26, 343. Neither did the system enhance the ability to recover debt when the debtor was an alien and landless in England (see discussion in Moore, 1985, p. 121).

⁵⁰ Jones (1979), pp. 13-6.

relatively objective and accurate assessment of conduct, and thereby curtailed false accusations.

The ability to only imperfectly observe conduct, and perhaps also the fact that local courts were at times not objective, required that to sustain cooperation a periodic break down of it was required. Over time, however, various political units were gradually becoming aware of the access costs that such retaliations could entail, and they labored to increase the accuracy of information, the objectivity of the court, and the costs implied by retaliations.

The gradual process of the cities' growth, commercial expansion, and political unification placed a strain on the system by making the adverse selection problem entailed by the Community Responsibility System more severe. It enabled individuals to falsify their community affiliation, and made a cheater's departure from his own community easier. In a sense, the growth of the market, commercial expansion, and social integration brought about by, among other factors, the Community Responsibility System, diminished its effectiveness. This legal doctrine was eroded by its own strength.

Merchant communities attempted to mitigate the increasing deficiency of the Community Responsibility System by using various means, such as imposing a tax instead of confiscating **goods**, increasing the cost of default to a lender, and initiating agreements forbidding retaliation and encouraging inter-community cooperation among courts to directly punish defaulters. These changes restricted the ability of merchants with low levels of wealth to conduct inter-community anonymous exchange relative to the situation **when** the Community Responsibility System prevailed.

The above similarity in the responses of England and Italy notwithstanding, the political structure of England enabled it to respond in a manner not feasible in Italy. Specifically, toward the end of the thirteenth century the king outlawed the Community Responsibility System and replaced it with an alternative institution. Central to the new institution was the concept of individual responsibility, and a special legal authority was empowered to record contractual obligations and to register collateral to be confiscated without a trial in cases of breach. Seizing the collateral was no longer the responsibility of the merchant who was cheated but that of the sheriff of the area in which the contract was written.

While the initial steps taken to establish this new system were insufficient to support inter-community anonymous exchange to the extent merchants wished, the institution was gradually improved to provide the basis for the modern institution. The king's decrees, between 1275 and 1285, were another step in the emergence of the modern central legal system credibly committed to impartial provision of justice, based on the principle that each individual, and only he, should be held

responsible for his actions.

Over time England supported inter-community anonymous exchange through an institution based on a central legal system, individual responsibility, and the deposit of bonds to guarantee contractual performance. This institution was based on a relatively large sunk cost — the cost required to establish a relatively complex legal instrument and extensive legal infra-structure. It replaced an institution that used local courts rather than a central legal system, but one that enabled the need to bear the constant cost of retaliations and whose effectiveness was eroded by the growth of markets, commercial expansion, and social integration. Yet, it was in England with its particular political structure that the old Community Responsibility System could be abolished. Italy could not circumvent its political structure, and its continued reliance on intra-community enforcement to support inter-community exchange certainly did not foster political integration.

Examining the institutions that governed inter-community contractual relations during the pre-modern period provides more than an understanding of institutional development and its inter-relations with commercial expansion and political structure. It also indicates that, in contrast to the standard view (e.g., Arrow, 1969), a small number of participants is both a cause of contractual problems and can be a part of the institutional solution to contractual problems. In Europe the social, political, and economic ties among members of groups provided the basis for the operation of institutions that supported impersonal exchanges between members of different groups. Interestingly, similar institutions are now being introduced in developing countries where credit is sometimes provided to an individual but a group is held responsible for its repayment. This paper indicates that in **devising such institutions, one has to provide the lenders with incentive to mitigate the implied adverse selection problem and to obtain the information required to prevent costly punishments on the equilibrium path.**

Furthermore, in contrast to the view that efficiency is the sole consideration in determining contractual arrangements (Williamson, 1985), this paper indicates the importance of non-market institutions in determining the implications of wealth distribution on the set of possible contracts in **credit market. Individuals who could borrow under the community responsibility system may have not been able to assume a loan under the individual responsibility system.** Finally, while Williamson (1983) has argued that the focus of institutional analysis should be “private order” organizations, history points to the importance of the interactions between private order and legal systems and the importance of impartial third party enforcement.

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