XIV International Economic History Congress, Helsinki 2006, Session 84

The Secret of Venetian Success: Public-order yet Reputation-based Institutions

Yadira González de Lara[*§]

This version: July 21, 2006.
Comments are very welcome

This paper examines the institutional foundations of the financial market underpinning Venice's commercial success during the late-medieval period. A public-order, reputation-based institution enabled merchants to commit not to (i) flee with the investors' capital, despite the limited geographical reach of the legal system and (ii) violate their contracts, despite the investors' inability to directly monitor them. Reputation concerns vis-à-vis the state motivated merchants to submit themselves to the Venetian authorities, while tight administrative trading controls provided the courts with the verifiable information required to detect a contractual breach. These institutional arrangements differed from both public-order and private-order institutions studied previously.

The expansion of Venetian trade along the Mediterranean and beyond during the late medieval period (1050-1350) had a lasting impact on the development of Europe.[1] This expansion was based upon an active

---

[*] My deepest debt of gratitude goes to Avner Greif, without whose suggestions, encouragement and support I would have never been able to write this paper. I also want to thank Ramon Marimon for his excellent co-supervision of my Ph.D. dissertation and Gavin Wright for his constant mentoring. I have benefited from many stimulating comments of R. Abramitzky, B. Arruñada, M. Botticini, A. Carlos, S.R. Epstein, G. Federico, P.V. Fishback, G. Friebel, P. Hernández Rojas, C. Moriguchi, J. Mokyr, R. Müeller, L. Prados de la Escosura, C. Rei, J. Reis, J.L. Rosenthal, K. Sokoloff, F. Stephen, G. Toniolo, and various participants at the UCLA Economic History seminar, the 2006 ASSA conference, the ESF-sponsored CEPR meeting on the "Long-Run Growth and Development of the World Economy," the Economic History seminar at the University of Valencia, the EAEPE 2004 Conference, the 64th EHA Annual Meeting, the 5th World Congress of Cliometrics, the 4th Workshop on Institutional Analysis at the University Pompeu Fabra, and the 7th ISNIE conference. Funding for this research was made possible through grants from the *Instituto Valenciano de Investigaciones Económicas* (IVIE-031), the *Generalitat Valenciana* (GRUPOS03/087) and the Spanish Ministry of Science and Technology (CICYT: SEJ2004-02172/ECON). I gratefully acknowledge the Ente Einaudi, the European University Institute and the Social Science History Institute at Stanford University for their intellectual and financial support in previous stages of this research. Very special thanks are due to Andrea Drago for his useful suggestions and patience. The usual caveats apply.

[§] Dep. Economic Análisis. University of Alicante. Campus de Sant Vicent del Raspeig. E-03080 Alicante. Spain. Email: yadira@merlin.fae.ua.es.

[1] Cipolla, *Before Industrial Revolution*; de Roover, "Organization;" Lane, *Venice*; Lopez, "Commercio" and *Commercial Revolution*; Luzzatto, *Storia*; and Norwich, *History*.

financial market whereby Venetians of all means, ranks and occupations mobilized their savings into risky investments in overseas trade.[2] However, to raise other people's capital, a merchant needed to commit ex-ante not to embezzle ex-post the capital he had carried abroad. What were the institutional foundations of this market? What enabled merchants to commit?

Some scholars, such as Raymond de Roover, Roberto S. Lopez, and Douglass C. North, have argued that the legal system supported the emergence of a market economy during the late-medieval period.[3] Yet, the geographical boundaries of courts' jurisdictional power and asymmetric information limit the ability of such public-order, coercion-based institutions to enforce financial contracts for overseas trade.[4] Other scholars, particularly Avner Greif, have emphasized how reputation among traders and informal monitoring supported overseas trade during the late-medieval period in the absence of an effective legal system.[5] The legal system, nonetheless, often reinforced these private-order, reputation-based institutions.[6]

In contrast, this paper finds that Venice's institution for contract enforcement was neither public-order, coercion-based nor private-order, reputation-based. Instead, a public-order yet reputation-based institution enabled Venetian merchants to commit not to breach their contractual obligations. It was public-order in the sense that the state gathered the information required to detect a contractual breach and punished a merchant who *returned* to Venice after embezzling an investor's capital. But, why would the

[2] Lane, *Venice and History*, pp. 56-57; and Luzzatto, *Studi*, pp. 59-80 and 89-115. For the general importance of credit to late-medieval economic growth, see Cipolla, Ibid. p. 164, and Lopez, *Commercial Revolution*, p. 72.
[3] De Roover, "Organization;" Lopez, *Commercial Revolution*; and North, *Structure* and *Institutions*.
[4] Cipolla, *Before Industrial Revolution*, p. 164 and North, *Institutions*, p. 57. Other works in the area of Law and Economics have stressed the fixed cost of lawsuits (Posner, *Economic Analysis*), the offender's inability to repay in the absence of collateral (Shavell, "Model"), the long duration of judicial proceedings (Djankov, La Porta, Lopez-de-Silanes and Shelifer, "Courts," and Bianco, Japelli and Pagano, "Courts and Banks"), and the potential subversion of justice (Glaeser and Shleifer, "Rise of the Regulatory State").
[5] Greif, "Reputation", "Contract Enforceability", "Cultural Beliefs," and *Institutions*. For other private-order reputation-based institutions, see, for example, Clay, "Trade;" Fafchamp, *Market Institutions*; Greif, "Political Foundations" and "Impersonal Exchange;" Greif, Milgrom, and Weingast, "Coordination;" Hicks and Thompson, "New Theory;" Hoffman, Postel-Vinay, and Rosenthal, *Priceless Markets*; Moriguchi, "Implicit Contracts." and Yang, "Transacting." Ideological commitments to honesty and integrity (Cipolla, *Before Industrial Revolution*, p. 164; and Norwich, *History*, p.155) and loyalty among family members (Lane, *Venice and History*, p. 36) may have played a role as well. I discuss these issues in section **??**
[6] For example, in late-medieval Genoa, the legal system enlarged the set of parameters for which the prevailing private-order bilateral reputation institution was self-enforcing by punishing observable transgressions, such as outright embezzlement of the investor's capital (Greif, *Institutions*, p. 295). For the role of the legal system in coordinating collective punishment, see Greif, *Institutions*, p. 93; and Greif et al., "Coordination." For the role of local courts in supporting a Community Responsibility System, see Greif, "Impersonal Exchange," and *Institutions*, Ch. 10. For complementarities between formal and informal institutions, see North, *Institutions*, and Dixit, *Lawlessness*.

merchant return to Venice instead of settling abroad to escape punishment? Venetian merchants were motivated to submit themselves to the authorities because they valued their reputation vis-à-vis the state. This reputation was valuable because it ensured access to privileged trade with a higher rate of return than it was available to them elsewhere.[7] Hence, the Venetian institution was reputation-based in the sense that merchants refrain from embezzling the *whole* amount received and fleeing to avoid legal sanctions by the fear of losing their reputation for honesty with the state. This fear, together with the threat of legal penalties, also induced merchants to refrain from misreporting trading profits and embezzling a *part* of the investors' capital once in Venice.

The Venetian public-order, reputation-based institution differed from both public-order, coercion-based and private-order, reputation-based institutions previously noted in the literature. In public-order institutions ala North, enforcement is based on the coercive power of the state, but it is limited by the information (exogenously) provided to the courts. In late-medieval Venice, however, the state could not exercise coercion over a merchant who fled with the investor's capital, but generated and transmitted the information required to enforce contracts otherwise characterized by asymmetric information. In reputation-based institutions ala Greif private agents monitor each other and punish those who lost their bilateral or multilateral reputation by terminating their association with them. In late-medieval Venice, however, the state monitored merchants and punished those with a bad reputation with administrative (trade-exclusion) and legal sanctions.

The Venetian institution combined reputation and coercion, but it was a fully public-order institution. Venice thus differed from Genoa, its main commercial rival, where reputation-based, private-order institutions were reinforced by coercion-based, public-order ones. While future research will shed light on the extent to which public-order, reputation-based institutions ala Venetian prevailed in other historical episodes, our knowledge so far suggests that its institutional distinctiveness enabled Venice to become the most economically successful among the maritime Italian city-states.

[7] According to Lane, the Venetians enjoyed "protection rents" that made their commerce more secured and profitable than that of their competitors (Lane, *Venice*, pp. 32-43, 58-63 and 125; and Lane, *Profits*). Note, however, that the interplay between these rents and the state's ability to enforce contracts has passed unnoticed.

This paper examines how the state created and maintained the reputational rents required to motivate merchants to keep their affiliation with Venice, how the state generated and transmitted the information required to adjudicate commercial disputes, and why the state behaved the way it did. To do so, the paper integrates historical data based on primary sources with game theory. The evidence enables me to, first, specify the appropriate rules of a game in which the state supports financial markets and, second, evaluate various predictions generated by the context-specific game. Empirical confirmation of these predictions lends support to the hypothesis that the state governed financial relations in Venice. This conjecture gains further support by the weakness of alternative explanations: neither private-order institutions based on bilateral or multilateral reputation, loyalty among the family, nor ethics are theoretically consistent with the observed patterns of exchange among Venetians and among them and non-Venetians.

This historical institutional analysis draws mainly on the 969 Venetian notary acts fully-transcribed by Raimondo Morozzo della Rocca and Antonio Lombardo (henceforth MRL) for the period 1021-1261 in which 435 trading contracts involving 543 individuals are mentioned.[8] To better interpret the Venetian fragmentary and notary-biased evidence, I confront it with secondary studies based upon Genoese notary records of the twelfth century, most notably with the work by Greif on the entire cartulary of John the Scribe for the years 1155-1164 in which 612 contracts involving 479 individuals were annotated.[9]

THE VENETIAN FINANCIAL MARKET FOR OVERSEAS TRADE

After a period of Byzantine dominance, Venice was established in the eight century as an autonomous political unit, at the top of which was a life-time elected doge of unlimited powers.[10] During the late-medieval period— on which this study focuses—, Venice developed into a republican magistracy that was to survive without essential modifications until the Napoleonic invasion in 1797.[11] Venice's independence

[8] MRL, *Documenti* and *Nuovi Documenti*. For the riches and biases of this source, see appendix A.
[9] Greif, "Reputation", "Contract Enforceability", "Cultural Beliefs," *Historical Institutional Analysis* and *Institutions.*
[10] For the early history of Venice, see Cessi, *Venezia Ducale*; and Norwich, *History*, pp. 1-49.
[11] In 1032 the autocratic power of the doge was first limited and in 1172 it was established that the doge should never act contrary to the advice of his councilors. During the late thirteenth and early fourteenth centuries the Venetian Commune became a hereditary aristocracy (Cessi, *Venezia Ducale*; Castagnetti, "Comune;" Gaspari, "Orseolo;" Gasparini, "Venice;" and Lane, *Venice*, pp. 88-117).

and internal political order strike with the history of its main commercial rivals.[12] Furthermore, with a steady population growth from about 45,000 inhabitants in 1050 to over 110,000 in 1330, Venice was the largest and probably the richest city in Northern Italy, and eventually vanquished its major competitor, Genoa, in 1381.[13]

Venice's economic rise was based upon the expansion of its trade along the Mediterranean and beyond.[14] The most profitable trade was on oriental luxuries, which could be successively found in *Romania*, as the Venetians called the territory that belonged or once belonged to the Byzantine Empire, the Crusader States, and Alexandria.[15] This trade required large amounts of capital and involved high risks.[16] A commercial round trip from Venice to the East took six to nine months and overlapping sailing seasons precluded financing a trip with retained earnings from the previous one.[17] Fitting costs were further increased by the need of carrying a large armed crew, sailing in convoy with navy protection, and securing merchant's property rights abroad.[18] These protective measures notwithstanding, the "risk of the sea and

[12] Amalphi vanished under Norman rule in the late-eleventh century. Pisa was crushed between Genoa at sea (1284) and Florence on land (1406). Genoa was torn by recurrent civil wars (during 1164-1169, 1189-1194, and after 1339 for almost 200 years) and at times fell under foreign domination (briefly to Milan in 1353 and then to France in 1394 for a century and a half). Later in the fifteenth century, the Catalans also sank on a civil war.

[13] For population figures, see Bairoch et al. "Population" and Lane, *Venice*, pp.18-19. For relative wealth estimates, see Lopez, "Commercio," pp. 326 and 386, and *Commercial Revolution*, p. 101. Venice's populace was relatively well-fed and enjoyed domestic peace, public health, and a more or less impartial system of law (Lane, *Venice*, pp. 201, 215-16, and 251 and Norwich, *History*, p. 638). For wealth distribution, see Lane, *Venice*, pp. 151-52 and 332-34. For the Venetian victory over Genoa at the battle of Chioggia in 1381, see Lane, *Venice*, pp. 190-96; and Norwich, *History*, pp. 243-56. Both Venice and Genoa were exhausted after the war. Yet, whereas Venice recovered rapidly, Genoa went into decline because of factional rivalries and never again constituted a threat to Venice.

[14] For Venetian patterns of trade and trading routes, see the Appendix. See also Lane, *Venice*, pp. 68-73; Lopez, "Commercio," pp. 314, 389 and 393, and *Commercial Revolution*, p. 95; and Luzzatto, *Studi*, pp. 90-93.

[15] For the shift in the locus of commercial interest to westerners, see Day, "Impact;" and Lane, *Venice*, pp. 68-73.

[16] Trade in ordinary goods within Europe or the East did not set such high capital requirements but was less profitable and still involved high risks (Byrne, "Commercial Contracts," p. 131; Lopez, *Commercial Revolution*, p. 95; and Pryor, "Commenda," p. 413).

[17] The opening of the seas in winter following the nautical revolution and a better organization of markets abroad enabled the undertaking of two voyages a year after 1290's (Lane, *Venice*, pp. 119-23).

[18] In Venice the typical medieval ship of about 200 deadweight tons capacity (*navis*) needed to be manned with over 60 crewmen to be considered "armed" (Lane, *Venice*, pp. 46-48). Huge 500-tons rounds ships had a crew of a hundred on a normal commercial voyage but if armed for battle, they carried several hundred (Ibid. 48-49). A Venetian galley normally carried 140-180 men during the twelfth and thirteenth century and about 200 during the fourteenth century (Ibid. and Ibid. p. 122). A typical thirteenth-century convoy from Venice to the East consisted of 10 to 20 *navis* or other small ships with one or two really big round ships or a few galleys for protection (Ibid., pp. 68-70 and 124-131). Genoese convoys were typically smaller (Byrne, "Commercial Contracts," pp. 131-33; and Dotson, "Fleets"). Protection costs abroad were determined by the cost of the naval and diplomatic action required to secure merchant's privileges in foreign lands. For Venetian acquisition of privileges, see Lane, *Venice*, pp. 23-43 and 73-85; Norwich, *History*, pp. 65-147; and pp. xx-xx in this paper.

people" remained high, implying frequent losses through shipwreck, piracy or confiscation of merchandise by foreign rulers. The commercial risk was also high: profits varied widely depending on the tariffs and bribes paid in customs, the transportation and storage fees, fluctuations in prices, the conditions of the goods upon arrival after such a long and perilous trip, and so on. To divide the costs and risk inherent in overseas trade, merchants used sea loans and commenda contracts. The sea loan was a fixed payment loan with the particular feature that the investor took the risk of loss at sea or at the hand of hostile people and was therefore allowed a higher rate of return. The commenda or *collegantia*, as the Venetians called it, was a trading contract whereby an investor assumed liability for any loss in proportion to the capital advanced and shared the commercial profit and risk with the merchant.[19]

The expansion of Venetian trade was facilitated by a very active financial market through which Venetians of all means, ranks, and professions invested sizeable sums into a diversified portfolio in overseas trade.[20] Venetian maritime commerce was indeed financed by "crowded groups of investors [whose] situation and mentality did not differ much from that of today's [bond and] equity holders." [21]

First, the 435 sea loans and commenda contracts reported by MRL mention as many as 334 investors, several of whom were nuns, priests, craftsmen, notaries, and other persons without business experience.[22] Over 80 percent of the investors appear only once as such and ?? percent of them bear non-noble family names (see table 1). This was not the case in Genoa, Venice's main commercial rival. Genoese trade investments during the twelfth century were concentrated on the hands of a few noble families.[23] The 612 contracts registered by John the Scribe reflect only 180 investors, 12 of whom contributed more than 40

[19] In Venice both the sea loan and the commenda were titles of credit. Venetian merchants traded on their own account and without any interference from the investors. In other localities, such as Genoa, the commenda was considered a partnership whereby a traveling merchant handled an investor's business abroad. See De Roover, "Organization," p. 50; González de Lara, "Contractual Responses;" Greif, "Cultural Beliefs;" Luzzatto, *Studi*, pp. 71-72 and *Storia*, pp. 82-84; Pryor, "Mediterranean Commerce," p. 155; and Sacerdoti, "Colleganze."

[20] See the references in footnote 2, Byrne, "Commercial Contracts," pp. 135 and 169; and Pryor, "Mediterranean Commerce," p. 438. The mobilization of capital by the population at large was particularly important in Venice because of the even distribution of wealth. This distribution was reinforced by an active financial market.

[21] Luzzatto, *Studi*, p. 72. See also Lane, *Venice and History*, p. 61 and Luzzatto, *Studi*, pp. 59-80 and 89-115.

[22] MRL, *Documenti*, # **xx** and *Nuovi Documenti*, # **xx.**

[23] Greif, "Cultural Beliefs," p. 929; and Byrne, "Commercial Contracts," p. 168.

percent of the capital.[24] The difference remains striking even if accounting for potential family ties: whereas 37 noble families contributed 90 percent of the total amount invested in Genoa, as many as 221 families invested in Venice (see table 2).[25]

Second, affluent people in Venice invested heavily, probably because they could diversify their investments. For example, at the time of his death in 1268 the doge Raniero Zeno held about half of his fortune in 132 commenda contracts.[26] Similarly, in 1281 the prosperous although non-noble merchant Lazzaro Mercadante had almost all his property invested in a diversified portfolio in overseas trade.[27] In contrast, the Genoese invested a significant proportion of their capital in non-trade related activities and were limited in their ability to diversify.[28]

The Venetian financial market indeed enabled diversification across trade centers and merchants and over time. For example, in 1235 Gabriel Marignoni invested in two sea ventures, one to Fermo (West Adriatic) and the other to the Eastern Meditterranean, and in 1238 he financed another two voyages, one to Ancona in Italy and the other to Zara in Dalmatia. In all, he entered into nine commenda contracts with nine different merchants.[29] Giovanni Serzi also contracted with a different merchant in each of the eight sea loans that have survived. In 1169 he financed four merchants sailing on three different ships from Armiro (Greece) to Constantinople and in 1170 he supplied funds to another four merchants on similar conditions.[30]

---

[24] Greif, "Contract Enforceability," p. 540. Changing conditions in Genoa by the turn of the twelfth century, though, opened maritime commerce to a wide range of people (Angelos, "Women," and Greif, "Political Foundations").

[25] Greif, *Historical Institutional Analysis*, p. **??**. These differences might be partially attributed to the different nature of the historical sources: whereas the Venetian data originated all around the Mediterranean and spans over two centuries and a half, Genoese figures came from the cartulary of only one scribe and spans eleven years. Yet, the Venetian bias towards family archives provides us with evidence fully comparable to the Genoese: four Venetian merchants appear in 113 contracts and raised capital from 94 different investors belonging to 72 families, both nobles and non-nobles. Information on the amounts of capital raised in Venice is not available.

[26] Luzzatto, *Studi*, 81-87. He held the rest of his wealth in cash and goods for personal use (10 percent), jewellery and ornaments (7.5 percent), loans (4.5 percent), public debt (13 percent), and real estate (20 percent). Surviving documents of testament and last will for the period 1021-1261 identify the same investment opportunities, except for public debt, which was first issue in 1164, and slaves, which gradually disappeared from Venice. These documents do not specify the shares allocated to each asset, but all of them include sea loans and/or credits of commenda (MRL, *Documenti*, # 9, 22, 43, 100, 131, 156, 232, 535, 559, 595, 636, 661 and 731 and Ibid. *Nuovi Documenti*, # 82 and 92).

[27] Luzzatto, *Studi*, pp. 61-65. A 74.56 percent of his trade investments consisted on personal merchandises and credits in the company *Societas Lazzaro Mercadante*. The remaining 25.44 percent was held in 25 credits of commenda. Trading companies seem to have been rare from 1021 to 1261, as only 39 such *compagnii* are mentioned in the data.

[28] Greif, "Contract Enforceability," p. 541, and *Historical Institutional Analysis*, Ch. 8, pp. **??**

[29] Ibid., # 694, 701, 707, 709, 711, 715, 745, 809, 820, and 842.

[30] Ibid. # 214-217 and 219-223.

As we have seen, even merchants invested in other merchants' ventures for the sake of diversification. Lazzaro Mercadante, for example, supplied capital through eight commenda contracts to seven different merchants during the period 1242-1258, and held 25 credits of commenda when he died in 1281.[31] On average, Venetian investors who appear twice or more in the data financed 2.25 merchants, a much higher rate than in Genoa, where investors relied, on average, on 1.57 merchants (see table 1 and 2).

THE COMMITMENT PROBLEMS AND POSSIBLE INSTITUTIONS FOR CONTRACT ENFORCEMENT

The large extent to which the financial market operated among the Venetians seems intriguing given the two commitment problems inherent to overseas trade investments whose risky returns could not be directly observed by the investors. First, once overseas a merchant could flee with all the investors' capital. Second, even if turning back to Venice, he could render a false account and misappropriate the difference.[32] In the absence of an institution enabling merchants to commit not to embezzle the whole or a part of the capital entrusted to him, investors would have refused funding them and hence mutually beneficial financial relations would have not transpired. Yet, Venetians from all walks of life invested substantial sums into a diversified portfolio in overseas risky trade. What were the institutional foundations of this market?

Loyalty among family members, the fear of God, and impure altruism can and most likely helped support Venice's financial market.**[33]** Yet, observed contractual patterns suggest that neither kinship nor ethics governed financial relations in late medieval Venice. First, the 435 sea loans and commenda contracts recorded by MRL reflect a limited and declining role of the family. Only 11.8 percent of these contracts were established among family members.[34] Furthermore, in contrast with Genoese notary records,

[31] MRL, *Documenti*, # 746, 759,764, 771, 793, 839-40, and 843; and Luzzatto, *Studi*, pp. 61-65. More generally, over a third of the merchants who appear at least twice in the 435 Venetian trading contracts performed also as investors.

[32] Notarial acts for both the sea loan and the commenda recognize this problem. Commenda contracts invariably required merchants to "render a complete, fair and true accounting, without any fraud or evil intent, and under oath." Sea loans ignores the disclosure of information, except for the claim of losses at sea or at the hands of enemy people, in which case the merchant also ought to swear under oath that the claim exempting him from repayment was true. For other contractual problems due to moral hazard and adverse selection, see Gonzalez de Lara, "Contractual Responses."

[33] On Venice, see, Lane, *Venice and History*, p. 36, and *Venice*, p. 98; Norwich, *History*, p. 155; and footnote 30. More generally, see Rosenberg and Birdzell, *How the West*; and Cipolla, *Before Industrial Revolution*, p. 164.

[34] Two individuals are considered to be family members if the contract mentions that they are relatives, if they have the same surname or if there is any evidence indicating they were relatives.

the rate of intra-family relations dropped dramatically, from almost 40 percent during the eleventh century to about 7.5 percent during the twelfth and thirteenth centuries.[35] Second, experienced and young merchants entered into sea loans and commenda contracts under exactly the same conditions.[36] Yet, if financial relations were based upon ethics alone, one would expect that experienced merchants whose records demonstrated to be *intrinsically* honest would obtain more favorable terms.[37]

Private-order, reputation-based institutions can theoretically support financial relations beyond the family and ethics by linking a merchant's past conduct to his future interactions with a particular investor or a group of investors. Specifically, a bilateral-reputation, private-order institution enables a merchant to commit by the carrot of a long-term relation of sufficiently high per-period value with a particular investor and the stick of terminating this bilateral relation if the merchant is ever discovered cheating the investor. A multilateral-reputation, private-order institution enables a merchant to commit by the expectation of very profitable future relations with a *group* of investors and the fear of losing *all* his multilateral relations if he is ever caught on a contractual breach towards *any* investor in the group.[38]

[35] This data is biased because financial relations among trustworthy relatives may have not required the services of a notary. Yet, the Venetians seem to have relied on notaries for both their intra- and their inter-family relations (for notarized evidence on a widow lending to her granddaughter "*for the needs of her home*" and a nun investing in her son's voyage, see MRL, *Documenti*, # 146, and Ibid. # 356; for other notary acts on loans *pro amore* among close relatives, see Ibid., *Nuovi Documenti*, # 90 and 104). More importantly, notary records in Genoa reflect an increasing role of the family. The cartulary of John the Scribe (1155-164) indicates that 6.45 percent of the capital raised externally was entrusted to family members. Later cartularies reflect a higher rate of intra-family agency relations: about 16 percent at the turn of the twelfth century (Greif, *Historical Institutional Analysis*, Ch. 8, p.7).

[36] All merchants were required to collateralize their debts with their entire present and future property and obtained one fourth of a commenda's profit for their trading skills and labor. Typically, twelfth-century merchants used the sea loan, whereas their thirteenth-century counterparts relied on the commenda (see figure 1).

[37] Besides, the phraseology in which notary acts were framed and the statuary law indicates that divine penalties were perceived as being insufficient to curtail merchants' opportunistic behavior (*Documenti* and *Nuovi Documenti*; Predelli and Sacerdoti, eds. "Statuti Marittimi;" and Besta and Predelli, eds. "Statuti Civili"). For example, the standard formula under which dying merchants abroad entrusted their wares for shipment to their legitimate heir imposed a hefty monetary sanction for a breach of contract, despite appealing to the fear of God: "if you infringe your duty or you are corrupted, let God Father Almighty and his Son our Lord and the Saint Spirit be against you … and let you burn in hell with Juda the betrayer forever and, in addition, you ought to compensate my will executor with five golden pounds" (MRL, *Documenti*, # 362. See also Ibid # 100, 246, 326, 535, 559, 595, 636, 661 and 731).

Ideological commitments to honesty and integrity seem to have been particularly important in Venice (Lane, *Venice*, p. 98; and Norwich, *History*, p. 155). Yet, one would need to understand why such internalized norms of good behavior prevailed among the Venetians, by and large, but not among other smaller groups of traders.

[38] See Greif, "Contract Enforceability," p. 530 and the references therein.

Such reputation-based institutions prevailed among the Genoese and the Maghribi traders, respectively.[39] This, however, was not the case in late-medieval Venice. The evidence contradicts the prevalence of bilateral reputation. Investments by relatively humble people who sporadically supplied small sums and the large extent to which investors diversified in Venice suggest that the Venetians established financial relations even when they knew beforehand that their bilateral relations would last for a short period of time and would be of little value.[40] Furthermore, unlike Genoese merchants, who tended to raise funds from the same investor, Venetian merchants typically raised capital from many different investors along their trading careers. For example, Romano Mairano— who is mentioned 49 times as a merchant and 3 times as an investor— raised capital from 43 individuals belonging to 35 families.[41] Domenico Gradenigo entered into 28 commenda contracts with various members of his family and with 14 other investors, of whom only two (that is 14.2 percent) financed him repeatedly.[42] On average, merchants who appear twice or more as such in the Venetian data received funds from 4.57 investors, as opposed to Genoese merchants who typically raised capital from only one investor (see table 1 and 2).[43]

Similarly, the evidence contradicts the relevance of multilateral reputation. The Venetians, unlike the Maghribi traders, notarized their contractual agreements, codified their trading customs, and brought their commercial disputes to the courts.[44] Such formalization seems at odds with the informal enforcement of contracts among a group of investors. Furthermore, the Venetians did neither form a coalition of business associates with a thick information network. Most Venetians investors were not personally engaged in

[39] Greif, "Reputation","Contract Enforceability", "Cultural Beliefs," *Institutions* and *Historical Institutional Analysis*.
[40] As we have seen, the typical Genoese investor of the mid-twelfth century was a wealthy noble who diversified relatively little. Consistent with the operation of a bilateral-reputation, private-order institution, he generally conferred large sum to a few merchants and financed them for a prolonged period of time (Greif, *Historical Institutional Analysis*, Ch. 8 pp. 24-27).
[41] MRL, *Documenti,#* 99, 104, 112, 116, 118, 122, 124, 127, 128, 130-132, 154, 155, 157, 167, 182, 183, 188-190, 193-198, 201, 203, 228, 231, 247, 248, 256, 261, 267, 278, 284, 285, 293, 294, 306, 309, 310, 312, 318, 323, 329, 335, 345, 381, 383, 384, 385, 387, 447. See also Ibid. # 191, 207, and 321. These documents spans the years 1150-1199.
[42] Domenico Gradenigo operated as a travelling merchant during the period 1205-1226. In terms of investing families, apart from his own, Domenico raised funds from ten families, four of whom provided him capital twice or more. MRL, *Documenti*, # 475, 488, 489, 494-498, 505, 506, 511, 512, 524, 525, 545, 549, 554-558, 563, 569, 571, 573, 575, 587-588, 601-605, 620, 633, 642, 670, 736, and 744 and Ibid. *Nuovi Documenti*, # 80.
[43] On Genoa, see Greif, *Historical Institutional Analysis*, Ch. 8, pp. 24-27.
[44] For evidence on the Magribies' reliance on informal means of contract enforcement, see Greif, *Institutions*, Ch. 3, pp. 63-64 and 295. For the operation of the Venetian legal system, see below.

commerce at the time they invested and some had definitely no trading experience.[45] Besides, there is no evidence whatsoever on business communications between Venetian merchants and their financiers.[46] But, without an essentially free mechanism for information transmission, investors would have not exercised costly monitoring to the benefit of the community and hence would have lacked the information required to practice multilateral punishment.

Observed formal relations of short duration and low value among self-interested traders who did not generate information as a by-product of their commercial activity can be enforced by the legal system. The legal system enables merchants to commit by the threat of confiscation of their properties an imprisonment.[47] The Venetian evidence indicates the importance of such a public-order, coercion-based institution. Its procedures were already established in the earliest Statutes of the City (circa 1192).[48] If a merchant in arrears failed to pay in full or otherwise arrive at an agreement with his financiers within eight days after a court had sentenced him, he ought to be incarcerated in the court's yards for a month and thereafter in prison for another month. After these two months, the sequestration of his goods was to proceed.[49] Litigation over various commenda contracts in 1195 and 1226 actually resulted in the forced sale of a merchant's real property and in the transfer of the possession of a particular property from a guarantor to a plaintiff. In 1241 the personal property of a deceased merchant was publicly auctioned and, because the amount retrieved was insufficient to fully satisfy his creditors, the merchant's house was sold by the ruling

[45] Only 29 percent of the investors who appear twice or more in the Venetian data acted also as merchants (table 2). In contrast, almost 70 percent of the 119 traders who are mentioned more than once in the Geniza documents performed both roles (Greif, "Cultural beliefs," p. 928). For evidence on inexperienced investors, see footnote 22.

The Venetian society, though, was not structured vertically, with a "class" of rich investors and a separate "class" of poor merchants who rarely, if ever, functioned as investors (Luzzatto, *Storia*, pp. 59-80 and 89-116). As we shall see, Venetian financial relations were very flexible. Furthermore, over 72 percent of the 83 merchant's families who appear twice or oftener had members who acted as merchants and members who acted as investors, and the more a merchant is mentioned, the more likely he appears investing in other merchants' ventures.

[46] According to Luzzatto, Venetian investors had no control over the ventures they financed (*Studi*, pp.70-72; see also footnote 19 and the references therein). In contrast, many letters has been preserved in which a Magribi investor requested information or mentioned that he was expecting to receive additional information before making a business decision (Greif, "Reputation," p. 880, and *Institutions*, Ch. 3, pp. 445-46 and476).

[47] For the operation of the legal system, see the references in footnotes 3 and 4.

[48] Besta and Predelli, "Statuti," St. Enrico Dandolo, c. 7-14, 36 and 73.

[49] To facilitate the enforcement of court sentences, the law prohibited offenders to both leave Venice and dispose of their goods before their disputes were settled. (St. Enr. Dandolo, c. 36). For evidence on the application of the law, see MRL, *Documenti*, # 466; 630-31; and 853; and *Nuovi Documenti*, # 20 and 41. The City Statutes also established the garnishment of one-third of the debtor's future income if no assets could be seized (St. Enr. Dandolo, c.36).

court.[50] Confiscation of real property due to failed credits was also extended to colonial estates. For example, in 1178 Leone Falier gave power of attorney to act against one of his debtors' property in the Venetian colony at Tyre.[51] Even next of kin resort to the legal system. For example, in 1224 Andrea Donato, the "beloved" father in law of Giovanni Badoer, brought a lawsuit against his son in law and obtained a house of Giovanni's property for compensation of a failed commenda plus the standard penalty of double the amount due plus interests. Andrea then transferred part of his rights over the house to his "beloved" grandson who, in turn, sold the rights over the alienated property to Giovanni's son, Pietro Badoer. Pietro, who had acquired legal capacity in 1218 with the consent of his "beloved" father, saw nothing wrong in bringing a charge against his progenitor over the property rights he had acquired in 1226 and proclaimed in court in 1230.[52]

Such public-order, coercion-based institution, however, could not by itself support Venice's financial markets. First, a late-medieval Venetian court had no coercive power over a merchant who fled with the investor's capital. Tracking down a fleeing merchant at a time previous to the passport, the credit card, and the internet was difficult if not impossible. Even if a merchant could be located, a Venetian court had no jurisdiction over another state's new citizen, and inter-community litigation was hardly a possibility among rival states.[53] Second, a late-medieval Venetian court needed to be provided with enough information to verify a contractual breach.

[50] See, respectively, MRL, *Documenti*, # 424, 626, and 743. For the legal seizure of real property due to failed loans, see MRL, *Documenti*, # 76, 174 and 175; 176; 281-83; 528; and *Nuovi Documenti*, # 38 and 39. For the existence of a very active market for rights over alienated property, see Ibid. # 281; 424; 554, 556, 557 and 581; and 624 and 844. The court helped enforce contracts even under extreme circumstances. In 1170 the brothers Marco and Pietro Giustiniani had financed Vitale Bembo for his disastrous trip to Constantinople, where his property was impounded by order of the Byzantine emperor Manuel Comnenus. Since Vitale had received funds through a sea loan, he was exempted from re-payment. However, twenty years later the Byzantine emperor Isaac sent compensation for damages, thereby reversing the outcome of Vitale's venture from loss to profit. On request of the brothers Giustiniani, the Doge and his court ordered that their credit be fully satisfied before delivering any compensation to Vitale (Ibid. # 466).

[51] Ibid. # 295. For close similarities between thirteenth-century courts in Venice and Negroponte, see MRL, *Nuovi Documenti*, # 86 and *Documenti*, # 783.

[52] MRL, *Documenti*. # 625 and 844. For another execution of collateral by close relatives, see MRL, *Nuovi Documenti*, # 38. For other intra-family litigation, see Ibid. 71 and 538; 281; 465; and 554, 556, 557 and 581.

[53] Venice, though, signed treaties for the extradition of *fugitives* with some states (Arias, *Tratatti*, pp. 230-39). For evidence on Venice's reliance on inter-community litigation for the settlement of commercial disputes with citizens from Padova and Verona, see MRL, *Documenti*, # 431and 637. For the operation of a community responsibility system in late medieval Europe, see Greif, "Impersonal Exchange" and *Institutions*, Ch. 10.

If neither the legal system nor private reputation, loyalty among family members, nor ethics provided the institutional foundations of Venice's financial market, how could investors trust merchants not to embezzle the whole or a part of their capital? Theoretical and historical insights suggest that the observed *trust* reflects the operation of a public-order yet reputation-based institution.

A reputation-based institution can motivate a merchant to refrain from embezzling the investor's capital outright and fleeing to avoid legal sanctions by ensuring him access to privileged trade with a higher rate of return than it is available to him elsewhere. The Venetian state indeed made Venetian commerce more secure and profitable than that of its rivals. Specifically, Venice obtained exclusive overseas commercial privileges and staple rights, organized protective convoys from Venice to her colonies, and introduced political barriers to entry when competition was pushing the resulting economic rents down.

A public-order institution can then induce a returning merchant to refrain from violating his contractual obligation by supporting the fear that a breach of contract would be detected and punished by the state. The Venetian state indeed monitored city-merchants and punished those at fault with other Venetians not only with legal sanctions but also with trade-exclusion. Specifically, colonial governors abroad, various public officers in Venice, and scribes on voyage supervised commercial ventures in each and all of their phases, thereby providing the verifiable information required to adjudicate commercial disputes and the means to exclude cheaters (and foreigners) from Venice's privileged trade.

A PUBLIC-ORDER YET REPUTATION-BASED INSTITUTION

This historical institutional analysis finds that a public-order yet reputation-based institution provided impartial third-party contract enforcement to the Venetians and hence supported the operation of the financial market among them. Studying this institution requires investigating the state's character of the rents underpinning Venice's reputation mechanism, the reasons for excluding foreigners and non-citizens, the administrative trading controls implemented to verify merchants' conduct and punish cheaters, and the nature of the resulting financial relations.

Economic Rents

To ensure Venetian merchants a competitive advantage, the state did three things. First, it established staple rights in Venice to the exclusion of potential competitors, especially from nearby Ferrara, Ancona, and Zara. This enabled the Venetians to make a profit as middlemen on the transit trade between Europe and the East by requiring all wares exchanged in the Northern Adriatic to be brought to Venice, unloaded there to pay taxes, and put there for wholesale.[54] Second, the Venetian state outfitted a fleet devoted to making the seas safe for city merchants and rented space to them on the state-owned galleys escorted by that fleet. This provided the Venetians protection from pirates and from rival cities at less cost than was available to others.[55] Last but not least, the Venetian state obtained exceptional privileges in *Romania*, the Crusader States, and Alexandria. This reduced the Venetian's costs and risks of conducting business in the most profitable trading regions.[56]

Venice's privileges in *Romania* enabled the Venetians to crowd out all other merchants there since 1082. In return for Venice's naval aid against the Normans, the Venetians obtained the right to trade free of all controls and requisitions in most Byzantine cities; were released from all tariffs, as opposed to native merchants who paid a 10 percent tax on trading transactions; and were given whole districts in Constantinople and Durazzo. According to twelfth-century Byzantine sources, "the Venetians were becoming rich at the expense of others due to their trading privileges."[57] To check Venetian dominance of trade in the Byzantine Empire and to raise its tax receipts, the Byzantines repeatedly tried to replace the Venetians with the Pisans and the Genoese under less favorable terms.[58] However, Venice used her naval

---

[54] Lane, *Venice*, pp. 58-63.

[55] Ibid, p. 125 and pp. 145-46. Genoese traders, on the contrary, usually organized their own convoys privately, thereby duplicating costs and preventing small merchants from shipping merchandise (Dotson, "Fleet," p. 2).

[56] The main references in English are Ibid, pp. 23-43 and 73-85 and Norwich, *History*, pp. 65-147. See also Jacoby, "Venezia;" Ravegnani, "Due Imperi" and "Ròmania;" and Rösch, "Gran Guagadno" and "Sviluppo." In contrast, the Genoese colonization was the work of private consortiums and developed mainly along the western Mediterranean.

[57] Stone, "Manuel Comnenus," based on Nicetas Choniates, chief of the palace secretariat in Constantinople.

[58] In 1111 the emperor Alexius I Comnenus, who had granted extensive privileges to the Venetians in 1082, conferred some but inferior privileges to the Pisans. In 1155 Manuel I Comneus introduced the Genoese on similar terms. More importantly, he signed treaties with Genoa in 1169 and with Pisa in 1170 in which tariffs were reduced from 10 to 4 percent— as opposed to the total exemption for the Venetians— and had all the Venetians who were in the Empire arrested on a single day (12 March 1171) and their goods impounded. In 1183 Andronicus I Comnenus renewed Venetian privileges and so did the dynasty of the Angeli. Yet, the Venetians were facing increasing competition from

power to persuade the Byzantine emperors to renew and even extend her privileges.[59] Furthermore, Venice's leading role in the Fourth Crusade assured the Venetians a trading monopoly and the right of free trade, without paying a tax, and under their own law in the subsequently constituted Latin Empire of Constantinople— the former Byzantine Empire— from 1205 to 1261.[60]

In the Crusader States the Venetians had the same privileges as the Pisans and the Genoese. Benefiting from extensive commercial concessions in *Romania*, Venice was initially reluctant to join the First Crusade, but eventually supported the crusaders in return for privileges.[61] Venice's neutrality in the Second and the Third Crusades enabled the Venetians to retain their privileges in all the Christian principalities along the Levantine coast, even though they only participate in the crusades as paid carriers.

Finally, Venice's privileged position in Alexandria from about 1200 enabled the Venetians to dominate the European trade there during the first half of the thirteenth century.[62] Furthermore, the

---

the Genoese and the Pisan until the latter were expelled from Constantinople in 1205 by the Fourth Crusade under the command of the ruler of Venice himself.

[59] In 1122 Venice concealed under the cover of a holy Crusade a punitive expedition against the Byzantines and so compelled the emperor John II Comnenus to restore her privileges, which he had refused to ratify in 1118 upon his enthronement. In 1147 Venice agreed to provide naval assistance to Manuel I Comnenus against the Normans in return for the renewal of her old privileges, which had been suspended in 1143, the grant of further privileges in Crete and Cyprus, and the enlargement of her quarter in Constantinople. In 1171 Venice sent a war fleet in retaliation for the seizure of Venetian citizens and property throughout the Empire, but had little success on account of the plague. However, the Byzantines found the Genoese and the Pisans no better to deal with than the Venetians and, accordingly, expelled the formers from Constantinople in 1182 and allowed the latter to return to the city in 1183. In the meanwhile, the Venetians concentrated on the very profitable new trade with Alexandria.

[60] In 1261 Genoa assisted the Byzantines to recover Constantinople in return for the latter's promise to expel the Venetians from that city and to grant them favored status there. Yet, the Venetians were readmitted in 1268 and the Genoese obtained a suburb across the Golden Horn in Pera, rather than the docks in Constantinople itself that the Venetians had possessed since the eleventh century. Moreover, while the Genoese were in favor with the Byzantines at Constantinople and in the Black Sea area, the Venetians continued to exert substantial influence on the eastern Mediterranean and became the closest trade partners of the Mamluk sultan of Egypt, by then the most profitable trading region.

[61] The Venetian crusading fleet first and foremost fought the Pisans, who had occupied the Byzantine island of Corfu. After defeating the Pisans and making them promise that they would not trade in *Romania*, the Venetian fleet was unleashed against the "infidel" in return for a tax-exemption and a commercial quarter in every town in the Latin Kingdom of Jerusalem. The death of the king in 1100, though, seems to have rendered the Venetian trading privileges void. In 1110 Venice sent another crusading expedition and obtained as reward a quarter in Acre and the rights to maintain a permanent magistrate and to use her weights and measures there. In 1123 Venice inflicted a crushing defeat on the Fatimid navy off Ascalon and helped capture the city of Tyre for the right to establish permanent colonies with the extraterritorial privilege in every Christian town.

[62] Jacoby estimates that the vast majority of the 3000 Italian merchants or so present in Alexandria during 1215-1216 were Venetians ("Dimensione," p. 690). Like other naval powers, Venice had obtained a *fondaco*— a walled enclosure that served as a combined warehouse and hostel— in Alexandria in the 1170s but, unlike her competitors, Venice gained a second *fondaco* and the privilege to have consular representation in the city in 1208. Among other things, Venetian consuls were in charge to adjudicate disputes among Venetian merchants and between Venetians and other

Venetians, unlike the Genoese and then the Catalans, resisted engaging in piracy raids on Muslim shipping and ports and used Venice's skilful diplomacy to extract more and more special privileges from the Mamluks, who ruled Egypt and then Syria from 1250 to 1517. As a result, Venetian trade expanded, whereas Genoese and Catalan trade decreased.[63]

Political Barriers to Entry

Venice's outstanding commercial privileges, protective convoys, and staple rights made Venetian commerce more secure and profitable than that of other city-states. However, to motivate Venetian merchants to submit themselves to the authorities, the state needed to make sure that a fleeing merchant would not enjoy the resulting economic rents. Since a merchant who settled abroad after embezzling the investor capital could have seized the benefits from Venice's lucrative trade by investing the stolen capital in Venice, foreign capital needed to be driven out from Venice's privileged trade.

The Venetian state, indeed, barred foreigners from investing overseas. Specifically, it denied them impartial third-party contract enforcement. In Venice "no one except a Venetian [could] testify against a Venetian."[64] Yet, as long as a foreigner investor could assure a Venetian merchant that their bilateral relation would last for a long time and that the latter's share on profits would be higher than it was customary among the Venetians, he could be certain that the Venetian merchant would both agree to do business with him and repay his debts. To prevent foreign investments through Venetians, the state prohibited foreigners to appoint Venetians as agents or otherwise participate in business reserved for

---

Latins. New privileges were granted in 1238 and renewed in 1244. Local (Ayyubid) rulers in Syria granted privileges to the Venetians in 1207/1208, 1225, 1229 and 1254.

[63] Venetian trade with Egypt and Syria was able to continue under Mamluk rule (1250-1517) on the basis of privileges granted in 1254 and 1289, respectively. After the fall of Acre in 1291, the popes prohibited trade with the Mamluks but the Venetians did not implement the ban except for the period 1323-1345 and then complied with it only partially: the Venetian lucrative trade with the Mamluks continued by way of the intermediate ports of Cyprus and Lesser Armenia. In 1370 Venice actually secured a general peace with the Mamluks, which permitted the Venetians to dominate European trade in Alexandria and to develop an expanding trade in cotton with Syria.

[64] Roberto, *Magistrature*, p. 23. The discrimination against foreigners was already a "custom" in 1162. Later in the thirteenth century the custom was passed into law (Besta and Predelli, "Statutti," p. 67).

Venetian citizens during the 1270's. These laws were to be enforced by the Consuls of the Merchants in Venice and by colonial governors abroad.[65]

Similarly, to maintain the effectiveness of Venice's public-order, reputation-based institution when the commercial expansion it fostered eventually pushed rents down, entry had to be restricted. The Venetian state, indeed, introduced political barrier to foreign and domestic entry.

Regulations concerning admission to citizenship were tighter in Venice than elsewhere and became even more restrictive during the fourteenth century, when increasing competition was congesting Venice's labor and financial markets for overseas trade.[66] During the twelfth and thirteenth centuries immigrants needed to pay taxes in Venice for ten years before acquiring naturalization. In most other cities, though, one year of residence, without tax-paying, sufficed. In 1305 citizenship requirements in Venice were raised to 25 years of tax-paying residence. At that time Genoa granted citizenship after three years of residence. The 1305 regulations also stipulated that out of the individuals born in Venice only those who could claim three generations of Venetian descendant and who had never engaged in "mechanical" labor were to be considered *original citizens* or citizens-by-birth. The exclusion of Venice's general populace from the ranks of citizens allowed to trade and invest overseas rested fluidity to Venice's financial market, but preserved per-citizen rents, thereby enabling the operation of the market among a selected group of citizens.[67]

Also, at various points during the fourteenth century when overabundance of Levantine products in Venice was eroding profits, Venetian merchants were prohibited from importing Levantine wares of more value than their assessed patrimony in the *estimo*, on the basis of which they contributed forced loans.[68] The

---

[65] Jacoby, "Venezia," p. 291; Lane, *Venice*, p. 140, and Sacerdoti, "Colleganze."

[66] As we have seen, the city population grew steadily from about 45,000 inhabitants in 1050 to over 110,000 in 1330. Since no medieval city reproduced itself, most new inhabitants must have been immigrants. For the labor and capital contribution to Venetian long-distance trade made by naturalized immigrants, see, for example, the evidence on Vitale Voltani, who acquired citizenship in 1130 (MRL, *Documenti*, # 129, 166, 234, 239, 273-275, 305, 308, 325, 353, 379, and 441). See also Luzzatto, *Studi*, pp.61-67 and 102, and Rösch, "Sviluppo," pp. 131 and 142.

[67] Caravale, "Istituzioni," pp. 304-12; Jacoby, "Dimensione;" Lane, *Venice*, pp. 20, 151-52, and 324; and Lopez, "Trade," p. 333 and 348. Contrary to the Genoese liberal policy in granting colonial citizenship, the Venetians barely admitted foreigners to their colonies. The 1305 regulation distinguished between full citizenship and half citizenship. The latter entailed immigrants to Venetian trade privileges within the city after fifteen years of tax-paying residence. Lane estimates that about 10 percent of Venice's dwellers were considered citizens after 1305.

[68] The law was in force for a few months in 1324 and for the periods 1331-38 and 1361-63. The same restrictive mechanism was applied in 1404 during the banking crisis to limit the bankers' investments of depositors' funds in maritime commerce (Lane, *Venice*, pp. 140 and 185 and Müeller, *Venetian Money Market*, pp. 168 and 503).

evidence indicates, however, that the *Officium de Navigantibus*, the newly established magistracy in charge of enforcing the law, did not curtail commercial credit among citizens-by-birth but it rather restricted investments in overseas trade made by foreigners and recently naturalized citizens.[69] An investment ceiling had in fact been applied to naturalized citizens in 1318 and the rule that new citizens could not invest in maritime commerce sums exceeding the amount of personal wealth for which they were assessed for fiscal purpose was maintained after the demise of the Officium de Navigantibus in 1363 and the definitive lifting of investment's quotas for original citizens.[70]

The identification of these political barriers to entry as essential elements of the Venetian institution for contract enforcement thus helps explain the distinctiveness and timing of the Venetian legislation. Governed by the state, the Venetians needed both to reserve to themselves the rents of their privileged trade and to maintain these rents high by restricting access to citizenship and limiting the supply of Levantine wares in Venice when sale prices were low.

Verifiable Information and Punishment

Economic rents and restrictions on entry motivated citizen merchants to submit themselves to Venice's authorities. However, to enforce the execution of contingent contracts like the sea loan and the commenda, the state needed to know when and to what extent a contract had been violated. Detecting a breach on a sea loan was relatively easy, as a merchant's claim of a repayment exception on account of shipwreck, piracy, or mass confiscation of merchandise abroad could be confronted with the testimonies of well-identified witnesses, both public and private.[71] In 1219, for example, the captain of the ship *Lo Carello* and a number of the merchants on the vessel testified that the ship had wrecked close to Nigroponte and that the merchant

[69] Luzzatto, *Storia*, pp. 123-24; Lane "Recent Studies," p. 138; and Müeller, *Venetian Money Market*, p. 503.
[70] Müeller, *Venetian Money Market*, pp. 151, 265, 503 and 616; and Hocquet, "Mecannismi," pp. 573 and 595-96.
[71] In Venice the testimony of witnesses was admitted as legal proof of one's claims (Besta and Predelli, "Statutti," p. 35; and MRL, D*ocumenti*, 11, 145, 407 and 629). Venetian sea loans and commenda contracts, both of which exempted the merchant from repayment in case of loss *at sea or at the hands of hostile people*, invariably named the master of the ship on which the merchant was required to voyage and specified the ports on which he was allowed to trade, or else compelled him to join a state's convoy under the constant supervision of well-known officials.

Domenico Gradenigo had lost merchandise for a total value of 110 hyperpers.[72] However, uncovering a breach on a commenda required verifying the bribes a particular merchant had paid to pass customs, the transportation and storage fees he had arranged for, the price at which he had bought and then sold his wares, whether these had been damaged on voyage or pilfered by the crew, etc. [73]

To gather the information required to verify a merchant's commercial accounts, the Venetian state converted an oversea venture into a "community enterprise subject to governmental approval."[74] This was a cumulative process of institutional development that began during the 1180's and was completed by the 1220s, when Venice had consolidated its colonial empire in the East and trading voyages were organized in state's round convoys from Venice to its enclaves.

Although Venice had gained outstanding overseas commercial privileges since the late eleventh century, it developed permanent administrative and judicial structures abroad only gradually. In 1186 Venetian judges settled in Constantinople and in 1205 they acquired legal extraterritoriality all over *Romania*. In contrast with the former Venetian colonies, those acquired after the Fourth Crusade were immediately placed under governors sent out from Venice: a *podestà* was installed in Constantinople in 1205, a *castellano* in Coron and Modon in 1208, a *bailo* in Negroponte in 1216, and a duke in Crete in 1219. In the Crusaders States, Venice obtained large compounds with full extraterritoriality in the early twelfth century, but the Venetian population remained predominantly mobile and self-governing until the early thirteenth century. Venice also enjoyed from better political relations with the Muslim authorities in Alexandria from 1200 and gained consular representation in the city in 1208. These ccolonial governors oversaw custom duties, administered warehouses and lodging facilities and, at times, held public records of the price at which all the Venetians together in monopsony bought cotton in Acre and pepper in Alexandria. As a result, a merchant underreporting profits on account of excessive tariffs or bribes, unduly high storage

[72] MRL, *Documenti*, 582. For other notary evidence on losses *at sea or at the hands of hostile people*, see Ibid. 35, 79, 83, 313, 316, 336, 338, 358, 360-61, 365, 369, 378-380, 403, 417, 466, 787, 798, 848, 854 and *Nuovi Documenti*, 11. For the safe arrival of a ship and its cargo, see MRL, *Documenti*, 407 and 629. For court evidence on disputes concerning losses due to the *risk of the sea and people*, see Ibid. 783 and Ibid. *Nuovi Documenti*, 86.
[73] A merchant could also breach a contract by taking excessive risks and/or shirking. For the institutional arrangements mitigating this (hidden action) problems, see González de Lara, "Contractual Responses."
[74] Lane, *Venice*, p. 49.

costs, a small theft by the local population, or unpropitious prices abroad was very likely caught on a charge of fraud. Furthermore, since 1225 if not earlier, the S*ensali dellla Messetteria*— a group of office holders in charge of collecting trading taxes and policing the market— provided compulsory brokerage services in Venice, thereby providing verifiable information also on sale prices.

By the turn of the twelfth century the state also organized twice a year a round convoy from Venice to *Romania* and another to the crusaders' states, *Beyond-the-Sea*. The two fleets voyaged together through the Adriatic Sea and up to the southernmost points of the Greek Peninsula, where they split: the former went to Constantinople through the Venetian enclaves of Moron, Coron, and Negroponte; the latter stopped at Crete, Rhodes and Cyprus to finally reach Acre, where ships bounded to (from) Alexandria left (joined) the convoy. As freight rates in the main categories of cargoes were determined by the state and collected by custom officials in Venice and by the *capitano*— a salaried government official appointed to manage the whole fleet— overseas, a merchant voyaging on a state's convoy could not misreport transportation costs.[75]

Furthermore, the Maritime Statutes of 1223 required that a semi-public scribe registered the number, weight, owner and stamp of any merchandise loaded and unloaded in any big ship (of above 200 tons), recorded all the contracts realized among merchants on voyage, and reported any fraud to the appropriate governmental officials. The Statutes also retained the ship captain responsible for the merchandise registered with the ship's scribe, except for loss at sea, from fire, or from the actions of enemies beyond the captain's control. As a result, a could no longer claim low profits because their cargoes were unsheltered on board or spoiled while loading and unloading without incurring in a formal accusation against the captain.

These administrative trading controls also enabled the state to punish cheaters without involving costly confiscation of property by the courts or imprisonment. Offending merchants were denied permission to join the state's convoys and hence were excluded from shipping in the main routes of trade. There is no doubt that the state selected the personnel of the trading fleets. Over half of the 261 thirteenth-century trading contracts make explicit the merchant's requirement to obtain a trading license from the Doge and

[75] Lane, *Venice*, pp. 129 and 146.

his council, a custom which was elevated to law in 1272 by the Great Council.[76] That merchants actually feared being excluded from the state convoys is clear from a 1242 document in which a merchant acknowledged receipt of an amount in commenda "to do business with by sea and by land … if [he] will be among those chosen men who are chosen according to the decree given by the lord Doge and his council; and if [he] will not be among those chosen, [he] will have the power to commit that merchandise or a part of it, with the witness of good men or with a charter, to some or to someone among those chosen."[77]

Also, merchants in a bad standing with other Venetians were prohibited from entering the marketplace of the Rialto and the administrative and judicial site of San Marco, which in all effect excluded them from doing business.[78] This prohibition was rendered effective by the *Justices*, who policed the market at the Rialto since 1173, and by court's official who executed sentences since the earliest times.[79] Although there is no evidence on the exclusion of deceitful merchants from Venetian privileges abroad, Venice tight administrative controls over her colonies could have been used for that purpose. The Civil and the Maritime Statutes indeed established that colonial governors made sure that merchants were subject to the same rules and regulations abroad as in Venice itself.[80]

Impartial Third-Party Contract Enforcement to the Venetians

The conjecture that a public-order, reputation-based institution provided impartial third-party contract enforcement to the Venetians generates various predictions regarding contractual relationships. If Venice provided "a responsible justice equal to all [her citizens]" but only to them, one would expect to observe the prevalence of intra-Venetians relations even before foreign investment was outlawed in the 1270s.[81] Also,

[76] Sacerdoti, "Colleganze." Trading licenses are first documented in 1200 and prevailed by the 1220's.
[77] MRL, *Documenti,* # 752 and 753. The translation is from Pryor, "Mediterranean Commerce," p. 141. See MRL, *Documenti*, # 593 for a convoy voyage a merchant could not undertake in 1221. Whether the merchant was denied a licence or cancelled the trip for other reasons cannot be said given the document's very bad conservation.
[78] Castagneti, "Primo Commune," p. 101; Lane, *Venice*, p. 143; and Müeller, *Venetian Money Market*, pp. 124-25. Merchants with a pending debt were also banned from holding any public office.
[79] Lane, *Venice*, p. 104, and Gasparini, "Venice."
[80] Besta and Predelli, eds. "Statuti," St. Enr. Dandolo, 1192, c.40, and Predelli and Sacerdoti, eds. "Statuti Marittimi," St. Tiepolo, 1229, c.45 and c.52 and St. Zeno, 1255, c.86 and c.98.
[81] The quotation is from the 1229 *promissione* of doge Giacomo Tiepolo (Besta and Predelli, "Statuti," p. 60). Doges customarily promised upon swearing their office that they would do their duty with diligence and impartiality (Norwich, *Venice*, p. 151). Venice was indeed celebrated for the impartiality of its legal system (Lane, *Ve*nice, p. 251; and Gasparini, "Venice").

one would expect to observe very flexible financial relations, at least prior to 1305, when Venetian residents below the rank of citizen were excluded from Venice labor and financial markets for overseas trade. The Venetian data for the period 1021-1261 confirms these predictions.

First, over 95 percent of the Venetian contracts were established among Venetians, even though they contracts were signed in the most disparate markets, from one to the other side of the Adriatic, from the Aegean islands to the Black Sea, and from Greece to Asia Minor, Egypt, and even Tunisi. Specifically, 95.5 percent of the 224 merchants (out of 233) who are said to be Venetians relied exclusively on their fellows' capital and 97.2 percent of the 324 investors (out of 334) who are identified as Venetians financed city merchants only (table 2 and 3).[82] Moreover, the great majority of these traders resided in the various neighborhoods of the *Rialto*, the city we know today as Venice, where the state could more easily punish fraudulent merchants and access to the courts was cheaper.

The observation that the Venetians contracted mainly with each other is striking given that this was not the case in Genoa. Genoese cartularies that were written in Genoa (and are thus more likely to reflect contracts among the Genoese) reflects the importance of financial relations between Genoese and non-Genoese. At least 18.4 percent of the total value of goods shipped abroad in the cartulary of John the Scribe (1155-1164) was sent or carried by a non-Genoese trader (see table 2).[83] More generally, 12 to 15 percent of the 1345 merchants that are mentioned in the Genoese cartularies for the period 1155-1200 were non-Genoese.[84] The evidence thus supports the conjecture that a public-order, reputation-based institution prevailed in Venice but not in Genoa, Venice's main commercial rival.[85]

Second, the Venetian data also reveals very flexible financial relations. Rich and poor merchants alike received funds both from wealthy and politically well-connected investors and from ordinary members of society with some cash. For example, to finance a return voyage from Venice to

[82] Consistent with the operation of the state, most foreign merchants (seven out of nine) were under Venetian jurisdiction, residing in Venice or in her domains. With respect to the ten "non-Venetian" investors, three were most likely naturalized citizens, one resided in the Venetian colony of Negroponte, two were crusaders, and the remaining four came from Verona, Bologna, the Provence, and Florence, respectively.
[83] Greif, "Cultural Beliefs," p. 931.
[84] Krueger, "Genoese Traveling Merchants," p. 268.
[85] Consistent with a bilateral reputation mechanism, the Genoese "integrated" themselves with natives in other political centers in possession of better knowledge of local conditions (Greif, "Cultural Beliefs," pp. 930-935).

Constantinople in 1223, Domenico Gradenigo, who had been born into a centuries' old Venetian patrician family, raised both a large amount of capital from Pietro Ziani, the ruler of Venice himself and probably the richest men in town, and a small sum from a widow of aristocratic origin.[86] Likewise, during the late-twelfth century Pangrazio Stagnario, the son of a liberated Croat slave, raised funds both from the-doge-to-be Pietro Ziani and from various other investors of humble families.[87] In total **??** percent of the Venetian contracts were agreed upon members of a similar social class and **(100-??)** percent were established among nobles and non-nobles.[88]

That the state enforced contracts among the Venetian regardless of each party's relative economic and political status during the period 1021-1261 is further supported by the absence of intermediation. The Venetians operated individually, each investing his own capital. Even women invested on their own account, not for their husbands.[89] In contrast, Genoese investors sometimes formed a partnership with other investors who regularly backed a particular merchant and together they supplied him funds. Also, some prominent investors in Genoa seem to have been investing their entire families' fortunes.[90] The evidence thus indicates that while the Venetians operated through anonymous markets (up to one's political affiliation), the Genoese invested through individuals who had a bilateral long-term relation with the funded merchant.

Recognizing that a public-order, reputation-based institution prevailed in Venice but not in Genoa also exposes the rationale behind observed legal and contractual differences. Venetian law allowed merchants to amalgamate funds for a single trip without the investor's permission, a freedom the Venetians took advantage of. For example, Rodolfo Suligo reduced the per-pound cost of a sea venture he undertook

---

[86] MRL, *Documenti*, # 604-605. More generally, see Buenger, "Domenico Gradenigo."
[87] MRL, *Documenti*, # 265, 301, 333, 357, and 415.
[88] See the appendix and footnote 45. On the contrary, Genoese contracts were generally established between an investor with considerable assets and political influence and an ambitious young merchant without the means to undertake a sea venture (Greif, "Cultural Beliefs," p. 928).
[89] MRL, *Documenti*, # 475, 495, 506, 588, 602, and 604. Typically, each family member invested on his own account. Besides, Venetian patrician families did not live together as clans in large compounds, as did the Genoese (Buenger, "Domenico Gradenigo," and Chojnacki, "Search").
[90] Greif, *Historical Institutional Analysis*, ch.8, p. 26 and ch. 9, p.20.

in 1234 by raising capital from at least fifteen investors.[91] The Genoese legislation, in contrast, attempted to increase the value of a merchant's bilateral reputation by restricting him to contract with only one investor at the time. More exactly, the first investor who contracted with a merchant in Genoa had the right to determine the amount the merchant could carry for others and shared the profits on the additional sums he allowed the merchant to carry.[92]

The legal responsibility of a merchant's family also varied. Whereas Venetian law established that only the son under parental authority or jointly with his father was liable for his father's debts, Genoese courts held all a merchant's family members responsible for his verifiable illegal actions, such as outright embezzlement.[93] Venetian merchants could be held individually responsible for their contracts because they were governed by a public-order, reputation-based institution. In Venice a merchant who embezzled goods would be deprived from the rents he could have otherwise gained by trading and investing overseas— in addition to facing legal sanctions if he ever returned to the City or its colonies. Hence, a Venetian merchant was motivated to honor his contractual obligations without making his family pay for him. In Genoa, however, a merchant who embezzled an investor's capital could **trade with and** invest that capital under the same conditions as the investor he had cheated. Hence, in the absence of legal constraints, a Genoese merchant would have been motivated to embezzle all the capital received and become himself an investor.[94] The Genoese private-order institution needed to be complemented by the legal system, which indeed held a merchant and all his family responsible for any verifiable contractual breach.[95]

The Genoese reliance on the legal system to enforce contracts when the actions were verifiable is clear from the specification in loan contracts and sea loan contracts that a delay in repayment was subject to a double penalty. The limited ability of the Genoese legal system to ex post verify a merchant's commercial

[91] MRL, *Documenti, #* 675-690 and 804. As we have seen, Venetian merchants typically raised capital from many more investors than the Genoese did (table2).
[92] Greif, *Historical Institutional Analysis,* ch. 8, p. 25; and Pryor, "Mediterranean Commerce," pp.142-43.
[93] For Venice, see St. of Enrico Dandolo, 68, edited by Besta and Predelli. For Genoa, see Greif, *Historical Institutional Analysis*, ch. 8, p. 4 and ch. 9, p. 10.
[94] An equilibrium in which financial contracting occurs cannot exit under a bilateral reputation mechanism, as merchant's honest behavior would require a per-period payoff equal to all the venture's profits and a part of the investor's capital (Greif, *Institutions,* p. 295).
[95] Greif, *Historical Institutional Analysis,* ch. 8, p. 4 and ch. 9, p. 10.

account, however, is also clear by the absence of such specification in commenda contracts. In Venice, on the contrary, both the sea loan and the commenda established a penalty for late payment of double the amount due plus 20 percent yearly interest.[96]

The different abilities of the Genoese and Venetian courts to verify commercial profits are also reflected in the accounting procedures. Whereas Genoese merchants were required by law to return to Genoa to settle their accounts, their Venetian counterparts were allowed to "*dispatch the proceeds that accrued to the [investor] in the care of a third-party…, without returning in person to render accounts*." Furthermore, commenda contracts in Genoa typically stipulated that, after the completion of the voyage, the merchant was to place the entire proceeds of the commenda in the hands of the investor, under whose direction, though with the merchant assistance, the division of profits was carried out.[97] In Venice, however, commenda contracts invariably allowed the merchant to *"to retain possession of his own part*." As the Genoese courts lacked the information required to verify merchant's conduct, commenda contracts in Genoa needed to impose restrictions on merchants that would help the investor evaluate his account. Such restriction, however, were unnecessary in Venice, for tight administrative trading controls provided Venetian courts with verifiable information.

Last but not least, the Venetian transition from the sea loan to the commenda in response to the implementation of these administrative trading controls by the state support the conjecture that a public-order, reputation-based institutions enforced Venetian contracts for overseas trade. In Venice the sea loan was the dominant contract until the 1180's, but was progressively replaced with the commenda, which prevailed by the 11220's (figure 1).

A SELF-ENFORCING INSTITUTION

The discussion so far assumed that the Venetian state was motivated to act as an impartial third-party contract enforcer and to take the actions that were most beneficial to its merchants. But, why would this be

[96] For the execution of this penalty in Venetian, both on sea loans and commenda contracts, see MRL, *Documenti*, # 53, 118, 122, 132, and 157, and Ibid. # 12, 18, 20, 56-57, 59, and 141, respectively. For Genoa, see Greif, *Historical Institutional Analysis*, ch. 8, p.4 and ch. 9 p.10

[97] Byrne, "Commercial Contracts," pp. 136-37; and Pryor, "Mediterranean Commerce," pp. 175-76.

the case? To understand the complex mechanisms that were used to ensure officials' impartiality and diligence, one must turn to the political system. A broad participation in Venice's public life and high turnover in office ensured that no single individual or group were in a position to use the power of the state in his own interest. Furthermore, a vigilant oversight supported a system of punishments and rewards that made each office holder's best strategy not to abuse his (limited) power or shirk from his duty.

Since the eleventh century government in Venice was never the affair of a single person. Political power was carefully distributed among a large number of interlocking councils and magistracies whose members were elected for a brief term and were ineligible to succeed themselves. Even in the judiciary, sentences were not passed by an individual judge but by several judges acting together. Although this system clearly imposed a cost in terms of executive efficiency, it guaranteed that no single individual or committee had a large share on power. Furthermore, to make sure that no single family or faction controlled the state, campaigning for office was outlawed, the selection of men for important offices was delegated to nominating committees whose members were chosen by lot, and no family was allowed more than one member on any such committee or office.[98]

Unlike modern limited governments, the division of power in Venice ignored completely the separation of the legislative, administrative, and judicial functions. To assure the rule of law, various governing bodies were given overlapping jurisdictions so that each council or magistracy was checked by some other council or magistracy. For example, the (three) Consuls of the Merchants were responsible for the safety of Venetian trading voyages and the adjudication of commercial disputes. Yet the *Signoria*— composed by the Doge, the six Ducal Councilors and the three heads of the Forty— initiated maritime legislation, named the commanders of galleys and fleets, and had the authority to assign particular legal cases to a higher court of law. Mutual monitoring was also exercised within each magistracy or *officia*. For example, since 1252 two ship scribes were keeping records independently of one another. These records

[98] For a concise description of the organization of Venice governing structures and their evolution over time, see Gasparini, "Venice." See also, Castagnetti, "Comune;" Gaspari, "Orseolo;" and Lane, *Venice*, pp. 88-117. For the tortuous procedure for appointing the doge and other state's officials, see Lane, *Venice*, pp. 98, 100 and 110; Gasparini, "Venice;" Norwich, *History*, 166-67; and Stahl, pp. 245-97. For a comparison with the Genoese political system, see Greif, "Political Organizations" and *Institutions*, Ch. 6.

were then evaluated by the Consuls of the Merchants to detect any violation of the maritime codes while on voyage. Besides, every official, including the doge, was subject to strict independent reviews after his office came to term and was liable to prosecution for abuse of his office or dereliction of duty. This prosecution was carried out by a distinctively Venetian group of officials, the State Attorneys, who had investigating powers and to whom all office holders were to notify any observed wrongdoing.[99]

Those found guilty were severely punished. They were inflicted hefty monetary sanctions and retired from office. For example, to ensure that tax receipts were properly allocated to the provision of public goods and, in particular, to the pursuit of economic rents, verifiable information, and legal contract-enforcement, any official who was caught "putting his hands in the state's goods" had to pay back the amount taken plus a fine of half that amount within three days from the conviction. In addition, he was to be banned for ever from the specific office in which he embezzled the money and, if the amount taken was relatively high, from holding any public office.[100] Lesser offenses were punished with smaller yet significant penalties. For instance, any crewman who failed to help in the recovery of a damaged Venetian ship, its equipment and cargo for the fifteen days prescribed by the Maritime Statutes of 1255 was to be deprived from his entire salary.[101]

Good performance, on the other hand, was rewarded by the continuation of a very profitable public life. Clerks were generally re-elected as long as they proved themselves honest and competent and, although one could not serve in the same council or magistracy for two consecutive terms, nothing prevented an individual from rotating through the most important offices. Furthermore, all those charged with enforcing regulations were induced to diligence by receipt of a portion of the fines levied in addition to their salaries.[102]

---

[99] See Lane, *Venice*, pp. 95 and 251, Gasparini, "Venice," and Rösch, "Strutture." See Stahl, *Zecca*, pp. 245-297 for an excellent overview of the application of these disciplinary mechanisms to the internal operation of the mint.
[100] Stahl, *Zecca*, p. 271. This 1359 law basically standardized the punishment for embezzlement of state goods. To make sure that it was enforced, the State Attorneys were given the right to sell the property of the convicted official. For a 1385 case in which this procedures was applied to a noble, see Ibid. p. 261. Evidence on the payment of fines for breaking the law dates back to at least the mid-twelfth century (MRL, *Documenti*, # 143, 163, 226 and 402). More generally, see Lane, *Venice*, pp. 98-100.
[101] St. Zeno c. XCIII in Predelli and Sacerdoti, "Statuti," p. 134.
[102] Lane, *Venice*, pp. 98 and 100, and Gasparini, "Venice."

Asserting that Venice distinctive limited government constrained state's agents to protect rather than abuse the contract and property rights required for the operation of the financial market ignores a key question. Why did Venetian prominent families and the doge, in particular, support Venice public-order reputation-based institution instead of attempting to establish and autocracy and misappropriate all Venetian rents?

Arguably, the Venetians were motivated to support rather than challenge the state by the shared belief that cooperating to render the polity of Venice conducive to trade would ensure each of them sufficiently high trading profits, while any attempt to subvert Venice limited government would be successfully resisted and penalized with capital punishment. This belief was self-enforcing because the Venetian state both ensured all its citizens access to Venice's commercial rents and guaranteed a balance of power among all the important Venetian families. Given the gains to the Venetians from the prevailing system and the broadly equal dispersion of economic and political power in Venice, the best each and all citizens could do was to join together to confront anyone's attempt to make himself a dictator and to impose on him the heaviest punishment, which in turn deterred each of them from trying.

Indeed, Venice was remarkably stable. From 1032, when Venice began developing its distinctive limited government, to 1797, when it lost its independence, there were only two internal revolts. Both occurred at times of exceptional distress and failed. In 1310 Bajamonte Tiepolo, taking advantage of the disruptions caused by the papal excommunication of the City and a widespread discontent with the ruling doge, led a plot to overthrow the doge and establish an autocracy. He was not executed for fear of provoking a civil war, but he was sentenced to a life-time exile in Dalmatia.[103] In 1355, after the "most disastrous decade Venetians had ever known," the doge Marin Falier was discovered conspiring to slaughter most of the nobility and assume dictatorial powers.[104] He was beheaded according to due process

[103] For the Bajamonte crisis, see Lane, *Venice*, pp. 114-117 and Norwich, *History*, pp.188-199.

[104] The quotation is from Lane, *Venice*, p. 179. The Black Death had cut the city population by three fifth, extinguishing at least 50 noble families out of about 200, during the years 1347-49 (Lane, *Venice,* p. 173 and Norwich, *History,* p. 214). Such a high mortality might have likely caused a decrease in the time discount factor, thereby undermining the reputation mechanism that made Venice's institutions self-enforcing. Also, Venice had been defeated in 1354 by Genoa which, like most other Italian cities at the time, was under the rule of a *Signore*. According to Lane,

of law. Subsequent doges were followed in official procession by a sword-bearing symbolic executioner as a reminder of the punishment intended for any leader who attempted to gain political control over the City and its economic rents.[105]

CONCLUSIONS

In late-medieval Venice the state functioned as an enforcement and information-transmission mechanism. On the one hand, Venice's exclusive trading rights and restrictions on entry created the reputational rents required to induce merchants not to embezzle the investors' capital outright and flee to avoid legal sanctions. On the other hand, tight administrative trading controls provided the verifiable information required to adjudicate commercial disputes within Venice and her colonies. Furthermore, the gains to the Venetians from this system generated the political support it needed to perpetuate.

These findings differ from the established historical and economic literature, which views the state either as a negligent and/or predatory ruler or as an exogenous third-party that uses coercion to enforce contracts. The Venetian state regulated the ex-ante behavior of merchants in a manner that facilitated the ex-post verification of a breach of contract and forced solvent borrowers within its jurisdiction to repay if they failed to do so spontaneously. Yet, a late-medieval Venetian court of law could not exercise its coercive power over a merchant who fled with the investor's capital. To enable merchants to commit not to embezzle the whole amount entrusted to them and never return to Venice, reputational rents needed to be created, and this required much broader state intervention than what has been previously advocated. Specifically, the Venetian state coordinated a collective military and diplomatic action, became the major shipbuilder, arranged the organization, protection and timing of trading convoys, and restricted foreign and domestic entry. In other words, to enable the smooth operation of the financial market among the Venetians, the state converted private trade into a public affair and introduced barriers to labor and capital mobility.

Marin Falier was impelled not by personal ambition or hatred to the class that had put him in office, but by the conviction that despots were more successful in war than republics (Lane, *Venice*, p. 183).
[105]Gasparini, *Venice*, Norwich, *History*, p. 299, and Olson, *Power*, p. 40.

Despite the potential limitations to economic growth inherent in state controls and monopolistic practices, the Venetian institution for contract enforcement seems to have sustained broader exchange relations than those made possible by other reputation-based institutions that did not rely on the state. On the one hand, the Venetian state, unlike the bilateral reputation mechanism prevailing among the Genoese, supported financial relations that the parties knew ahead of time would be of short duration and little value. This enabled both the diversification of trade investments, which arguably fostered further investments, and the mobilization of legacies, small incomes and personal saving into long-distance trade. On the other hand, the effective operation of the Venetian state, unlike the multilateral reputation mechanism prevailing among the Maghribies, required investors to neither engage in informal monitoring of the merchants' conduct nor practice collective punishment. This enabled the mobilization of both merchant and non-merchant capital into long-distance trade.

Furthermore, the Venetian institution for contract enforcement was exogenous to each individual, but endogenous to the society. Venice's governing structures both supported the operation of financial markets and restrained the tyrannical exercise of power. This ensured a wide distribution of trading profits and political authority among the Venetians and motivated them to cooperate and contribute to the maintenance of Venice' distinctive limited government.

While this paper accounts for the Venetian institution as being politically self-enforcing, it does not inquiry on the process of equilibria selection. Why did Venice evolve along such a distinctive institutional trajectory? Did a unique historical experience, geographical position, and cultural heritage ultimately bring about what seems to be a particularly successful equilibrium? And if so, what prevented other Italian city-sates from adopting similar public-order reputation-based institutions? These questions lead the way to a future comparative and historical institutional analysis that may facilitate our understanding of both past economic developments and the political impediments to economic growth in contemporary developing countries.

REFERENCES

Angelos, Mark. "Women in Genoese *Commenda* Contracts, 1155-1216," *Journal of Medieval History*, 20 (1994): 299-312.

Arias, Gino. *I tratatti commerciali della Reppublica Fiorentina*. Florence: successori le Monnier, 1901.

Bairoch, Paul, Jean Batou, and Pierre Chèvre, *The Population of European Cities from 800 to 1850*: *Data Bank and Short Summary of Results*. Geneva: Librarie Droz, 1988.

Besta, Enrico and Riccardo Predelli, eds. "Gli Statuti Civili di Venezia prima del 1242." *Nuovo Archivio Veneto*, n.s.1 (1901): 5-117 and 205-300.

Bianco, Magda, Tullio Jappelli, and Marco Pagano. "Courts and Banks: Effects of Judicial Enforcement and Credit Markets." CSEF Working Paper, 58 (2004).

Buenger, Robbert L. "Domenico Gradenigo: A Thirteenth-Century Venetian Merchant" in Kittel, E.E. and T.F. Madden (ed.) *Medieval and Renaissance Venice*, Urbana and Chicago: University of Illinois Press. 1999.

Byrne, E.H. "Commercial Contracts of the Genoese in the Syrian Trade of the Twelfth Century," *The Quarterly Journal of Economics*, 31 (1917): 128-70.

Castagnetti, Andrea. "Il primo comune" in *Storia di Venezia*, edited by Ruggini, L.C., Pavan, M., Cracco, G. and G. Ortalli. Vol. 2, 81-130. Roma: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1991.

Caravale, Mario. "Le istituzioni della Repubblica" in *Storia di Venezia*, edited by Arnaldi, G. Cracco, and A. Tenenti. Vol. 3, 299-364. Roma: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1997.

Cipolla, Carlo M. *Before the Industrial Revolution: European Society and Economy, 1000-1700*. London: Routledge, 1993 (Third Edition; First Edition from 1976).

Chojnacki, Stanley. "In Search of the Venetian Patriciate: Families and Factions in the Fourteenth Century," in J.R. Hale (ed.) *Renaissance Venice*, London: Faber and Faber, 47-90, 1973.

Clay, Karen. "Trade without Law: Private-Order Institutions in Mexican California", *Journal of Law, Economics, and Organization*, Vol. 13.1 (1997): 202-31.

Day, Gerald W. "The Impact of the Third Crusade upon Trade with the Levant." *International History Review*, 3 (1984): 159-68.

De Roover, Raymond. "The Organization of Trade." In *Cambridge Economic History of Europe*, Vol. 3, 42-118. Cambridge: Cambridge University Press, 1963.

Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. "Courts" *Quarterly Journal of Economics*, 118.2 (2003): 457-522.

Fafchamps, Marcel. *Market Institutions in Sub-Saharan Africa: Theory and Evidence*. Cambridge: MIT Press, 2004.

Gasparini, Silvia. "Venice and its law system." http://147.162.217.112:90/prospero/gaspbiblio.htm

Gasparri, Stefano. "Dagli Orseolo al Comune" in *Storia di Venezia*, edited by Ruggini, L.C., Pavan, M., Cracco, G. and G. Ortalli. Vol. 1, 791-826. Roma: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1991.

Glaeser, Edward L. and Andrei Shleifer. "The Rise of the Regulatory State." *Journal of Economic Literature*, 41 (2003): 401-425.

González de Lara, Yadira. "Institutions for Contract Enforcement and Risk-Sharing: from Debt to Equity in Late Medieval Venice". *Temi di Ricerca*, WP 47 of the Ente Einaudi (2004).

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

_________. "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition," *American Economic Review*, 83.1 (1993): 525-48.

_________."Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies," *Journal of Political Economy*, 102.5 (1994): 912-50.

_________. “On the Political Foundations of the Late Medieval Commercial Revolution: Genoa during the Twelfth and Thirteenth Centuries,” *The Journal of Economic History*, 54.4 (1994): 271-287.

_________. “Political Organizations, Social Structures, and Institutional Success: Reflections from Genoa and Venice during the Commercial Revolution,” *Journal of Institutional and Theoretical Economics*, 151.4 (1995): 734-740.

_________. “Impersonal Exchange without Impartial Law: The Community Responsibility System,” *Chicago Journal of International Law*, 5.1 (2004): 107-136.

_________. ***Institutions and the Path to the Modern Economy: Lessons from Medieval Trade***. Book Manuscript. Contracted with CUP.

Greif, Avner, Paul R. Milgrom, and Barry R. Weingast. “Coordination, Commitment and Enforcement: the Case of the Merchant Guild.” *Journal of Political Economy*, 102 (1994): 745-76.

Hickson, Charles R. and Earl A. Thompson, “A New Theory of Guilds and European Economic Development,” *Explorations in Economic History* 28.2 (1991): 138-139.

Hocquet, Jean-Claude. “I mecanismi dei traffici” in *Storia di Venezia*, edited by Arnaldi, G., G. Cracco, and A. Tenenti. Vol. 3, 299-364. Rome: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1997.

Hoffman, Philip T., Gilles Postel-Vinay, and Jean-Laurent Rosenthal. *Priceless Markets: The Political Economy of Credit in Paris, 1660-1870*. Chicago: University of Chicago Press, 2000.

Jacoby, David. “La Venezia d’oltremare nel secondo Duecento” in *Storia di Venezia*, edited by Cracco, G. and G. Ortalli. Vol. 2, 263-302. Rome: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1991.

_________. “La dimensione demografica e sociale” in *Storia di Venezia*, editd by Cracco, G. and G. Ortalli. Vol. 2, 681-709. Rome: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1991.

Lane, Frederic .C. “Recent Studies on the Economic History of Venice.” *Journal of Economic History*, 23.3 (1963): 312-334.

_________. *Venice and History: the Collected Papers of Frederic C. Lane*. Baltimore: The Johns Hopkins University Press, 1966.

_________. *Venice. A Maritime Republic*. Baltimore: The Johns Hopkins University Press, 1973.

Lopez, Roberto S. “The Trade of Medieval Europe: the South,” in M. M. Postan and E.E. Rich, eds., *Cambridge Economic History of Europe, II: Trade and Industry in the Middle Ages.* Cambridge: Cambridge University Press, 1952.

_________. *The Commercial Revolution of the Middle Ages, 959-1350*. Cambridge: CUP, 1976.

Luzzatto, Gino. *Studi di Storia Economica Veneziana*. Padova: Cedam, 1952.

_________. *Storia Economica di Venezia dall'XI all'XVI secolo*, Venezia: Centro Internazionale delle Arti e del Costume, 1962.

Moriguchi, Chiaki. “Implicit Contracts, the Great Depression, and Institutional Change: a Comparative Analysis of U.S. and Japanese Employment Relations, 1920-1940”, *Journal of Economic History*, 63 (2003): 625-665.

Morozzo della Rocca, Raimondo and Antonio Lombardo. *Documenti del Commercio Veneziano nei secoli XI-XIII*, 2 vols. Torino: Editrice Libraria Italiana, 1940.

_________. and _________. *Nuovi Documenti del Commercio Veneziano nei secoli XI-XIII*." Treviso: Deputazione di Storia Patria per le Venezie, n.s.7, 1953.

Müeller, Reinhold C. *The Venetian Money Market: Banks, Panics, and the Public Debt, 1200-1500*, Baltimore and London: John Hopkins University Press, 1997.

North, Douglas C. *Structure and Change in Economic History*. New York: Norton, 1981.

_________. *Institutions, Institutional Change and Economic Performance*. Cambridge: CUP, 1990.

Norwich, John Julius. *A History of Venice*. *New York:* Vintage Books, 1989.

Posner, Richard. *Economic Analysis of Law*,5th Edition (1st edition from 1973). Massachusetts: Little Brown, 1998.

Predelli, Riccardo and Alberto Sacerdoti, eds. “Gli Statuti Maritimi Veneziani fino al 1255.” *Nuovo Archivio Veneto*, n.s.2 (1902-3): vol. 4 and vol. 5.

Pryor, John .H. “Mediterranean Commerce in the Middle Ages: A voyage under commenda.” *Viator*, 14 (1983): 132-194.

Roberto, M. *Le Magistrature giudizirie Veneziane e i loro capitolari fino al 1300*. Padova: R. Deputazione Veneta di Storia Patria, 1906.

Rösch, Gerhard. “Lo sviluppo mercantile” in *Storia di Venezia*, edited by Ruggini, L.C., Pavan, M., Cracco, G. and G. Ortalli. Vol. 2, 131-151. Roma: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1991.

_________. “Le Strutture commerciali” in *Storia di Venezia*, edited by Ruggini, L.C., Pavan, M., Cracco, G. and G. Ortalli. Vol. 2, 437-460. Roma: Istituto della Enciclopedia Italiana fondata da Giovanni Treccani, 1991.

_________. “The *Serrata* and Venetian Society” in *Venice Reconsidered: The History and Civilization of an Italian City-State, 1297-1797* edited by Martin J. and D. Romano. Baltimore: The John Hopkins University Press, 2000.

Sacerdoti, Alberto. “Le colleganze nella preatica degli affari e nella legislazione veneta” in *Atti del Reale Istituto Veneto di Scienze, Lettere ed Art*, 59 (1899-1900): 1 - 45.

Shavell, Steven. “A Model of the Optimal Use of Liability and Safety Regulation.” *Rand Journal of Economics*, 15.2 (1984): 271-280.

Stahl, Alan M. *Zecca*. *The Mint of Venice in the Middle Ages*, Baltimore: The John Hopkins University Press, 2001.

Stone, Andrew. “Manuel I Comnenus” in *De Imperatoribus Romanis: An Online Encyclopedia of Roman Emperors*. http://www.roman-emperors.org/mannycom.htm

Yang, Mu. “Transacting with the Emperor: Public Finance in Imperial China.” Working paper, Stanford University, 2000.

Table 1: Presence of Venetian traders

No. of times that Traders appears	Only as Investor	Only as Merchant	As both Investor and Merchant	Total %
Once	252	166	0	76.98
Twice	40	20	10	12.89
Three times	6	10	4	3.68
Four times	4	6	2	2.21
Five times	0	1	3	0.74
Six times	2	0	0	0.37
Seven times	3	1	0	0.74
Eight times	2	0	0	0.37
Nine times	1	2	2	0.92
Eleven times	0	1	1	0.37
Fifteen times	0	1	0	0.18
Twenty two times	0	0	1	0.18
Twenty eighth times	0	1	0	0.18
Fifty two times	0	0	1	0.18
TOTAL	310	209	24	100

Source: The author based on Morozzo della Rocca and Lomabrdo, *Documenti* and *Nuovi Documenti*.

Table 2: Genoa versus Venice

	Genoese (John the Scribe) *	**Venetians (MRL)**
Time Period	1155-1164	1021-1261
Documents	entire cartulary	455 (out of 969) notarial acts
Contracts (sea loan and commenda)	612	435
Traders[1]	479	543
Investors	180 (37.5 %)	334 (61.5 %)
Merchants	335 (69.9 %)	233 (42.9 %)
Families[2]	?	320
Investor's Families	about 34	221 (69.0 %)
Merchant's Families	229	59 (49.6 %)
Intra Family Relations	6.45 % of capital	10 %
Average merchants per investor[3]	1.57	2.25
Average investors per merchant[3]	Close to 1	4.57
Non-Genoese/Non-Venetian		
Investors	18.3 % of capital	3.8 %
Merchants		4.2 %

Source: For Genoa, Greif, "Contract Enforceability", "Cultural Beliefs,"and *Institutions*.
For Venice, the author based on Morozzodella Rocca and Lomabrdo, *Documenti* and *Nuovi Documenti*.

[1] 'Traders' refers to the individuals who originally entered into a contractual relation. In the Genoese and the Venetian sources, 36 and 24 traders, respectively, performed as both an investor and a traveling merchant.

[2] In terms of Venetian families, 60 out of the known 320 trader's families have members who acted as investors and members who acted as merchants.

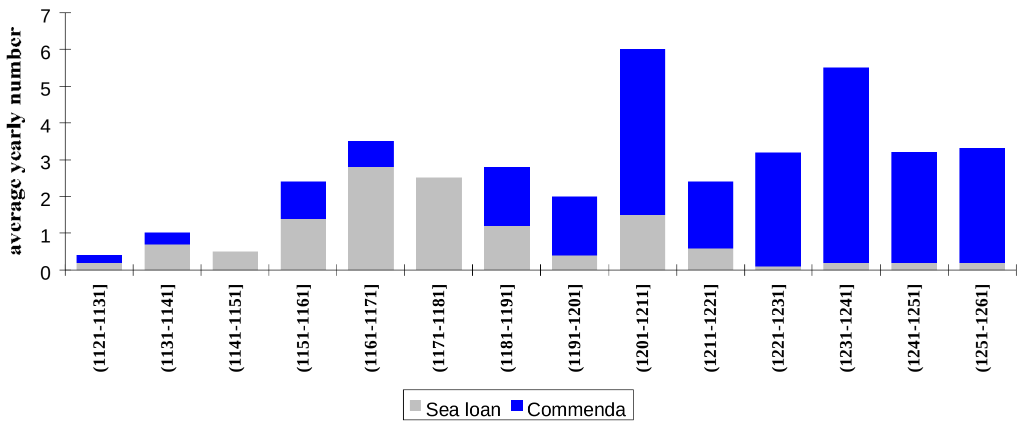
[3] Excluding investors/merchants who appear only once as such.

Table 3: Venetian Contracts classified by traders' place of origin and residence

	Investors		Merchants	
Venetians residing in *Rialto*	380	87.36 %	407	93.56 %
Venetians residing in the lagoon	28	6.44 %	16	3.68 %
Venetians residing in the Greek Empire, Istria or Dalmatia	17	3.91 %	3	0.69 %
Non-Venetians residing in *Rialto*	3	0.69 %	5	1.15 %
Non-Venetians residing outside the lagoon	7	1.61 %	4	0.92 %
Total	435	100 %	435	100 %

Source: The author based on Morozzo della Rocca and Lomabrdo, *Documenti* and *Nuovi Documenti*.

FIGURE1:
DOCUMENTED SEA LOAN AND COMMENDA CONTRACTS AND THEIR DISTRIBUTION OVER TIME



Source: The author, based on Morozzo della Rocca and Lombardo, *Docuemnti* and *Nuovi Documnti*.

In addition to the contracts graphed in the figure, the surviving evidence includes one sea loan and eleven commenda contracts for the period 1021-1120 and 38 contracts whose classification is uncertain.