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Trade, Institutions, and Credit

Karen Clay*

Department of Economics, University of Toronto

Within economics there has been a mounting interest in institutions. Virtually all the work to date on institutions has examined a single institution. The problem is that in many settings the performance of the institution under examination is affected by other, unexamined institutions. This paper examines the relationship between two types of private-order institutions that facilitated trade in a specific setting—Mexican California during the 1830s and 1840s. The surviving evidence suggests that a multilateral institution enabled merchants to extend credit to their retail customers, and a similar multilateral institution enabled the merchants to extend credit to one another. The relationship between these institutions makes them of particular interest. This relationship arose because local communities imposed costs on merchants that affected their trade with one another. The barriers to entry and exit posed by these costs, in turn, facilitated the operation and persistence of the institution that supported intermerchant trade. They also precluded other organizational forms such as the vertical integration of wholesalers.

TRADE, INSTITUTIONS, AND CREDIT: CONTRACT ENFORCEMENT ON THE CALIFORNIA COAST, 1830–1846

Within economics there has been a mounting interest in institutions. In economic history alone many scholars have made significant progress in understanding the role that institutions have played in a variety of settings. An early

* All correspondence may be sent to Karen Clay, Department of Economics, University of Toronto, 150 St. George St., Toronto, Ontario, Canada M5S 3G7.

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thesis was that institutions would change or arise in response to opportunities for gain and thereby foster growth. This proposition prompted scholars to investigate cases in which such change failed to occur.[1] They found that transactions costs, distributional issues, externalities, and political barriers may prevent change.[2] In cases where institutions, particularly private-order institutions, have emerged to address problems, we have a much deeper understanding of how these institutions operated.[3] Virtually all the work to date on institutions has examined a single institution. The problem is that in many settings the performance of the institution under examination is affected by other, unexamined institutions.

This paper investigates the relationship between two types of institutions that facilitated trade in a specific setting—Mexican California during the 1830s and 1840s. Trade flourished in California during this period. Its products—hides, tallow, furs, horses, and lumber—reached markets in the United States, Latin America, Mexico, Hawaii, and China, and goods from these countries found a market in California. At the nexus of this trade stood the resident merchants. They acted as intermediaries between the ships' captains and supercargoes who represented California's links to the world markets and the Spanish-speaking residents in towns along the coast. Buying in quantity from the ships, merchants sold goods through their stores to retail customers. Large merchants also operated on a scale that made it profitable for them to trade with one another, collect debts for one another, and form partnerships to buy abroad.

Credit was a central feature of trade. At all levels, credit eased the restrictions that barter would have imposed. For instance, because customers produced agricultural goods seasonally, a merchant who extended credit to a customer benefited from the ability to interact on a year-round, rather than a seasonal, basis. The use of credit for intermerchant trade meant that goods could be shipped unaccompanied and payment made when mutually convenient. While in both instances entering into an agency relationship could lead to cost savings, a customer or another merchant could also act opportunistically, because they handled goods that they did not own.

Trade in Mexican California is of particular interest for three reasons. Institutions played a key role, these institutions were linked, and, unlike many historical examples, records documenting trade among merchants and among residents have survived. At each of the two levels—among merchants and among residents in towns—a number of different institutions could have supported trade. Although in modern society the legal system commonly supports trade based on credit, in

[1] On the early thesis, see Coase (1960), Demsetz (1967), Davis and North (1971), and North (1981).

[2] See Johnson and Libecap (1982), Libecap and Wiggins (1985), Wiggins and Libecap (1985), Binger and Hoffman (1989), Hoffman (1989), Ostrom (1990), Kantor (1991), North (1991), and Rosenthal (1992).

[3] On the emergence of institutions, see Macauley (1963), Dennen (1976), Umbeck (1977), Umbeck (1981), Ellickson (1989), Greif (1989), Milgrom, North, *et al.* (1990), Ostrom (1990), Ellickson (1991), Bailey (1992), Greif, Milgrom, *et al.* (1994), and Clay (1997).

other settings private-order institutions based on bilateral or multilateral interaction have supported such trade. Trade could also have been limited to barter or failed to exist at one or both levels. This paper finds that trade based on credit did take place at both levels and that this trade was supported by multilateral institutions.[4] These institutions overcame the problem of opportunism by linking past behavior and future interaction. Continued interaction with other individuals was valuable. These gains and the threat of punishment by multiple individuals for deviation from accepted norms created incentives that allowed individuals to trust one another. Interlinkage between the two institutions arose because local communities imposed costs on merchants that affected their trade with one another. The barriers to entry and exit posed by these costs, in turn, facilitated the operation and persistence of the institution that supported intermerchant trade. They also precluded other organizational forms such as the vertical integration of wholesalers.

The institutions that supported trade in California are of historical as well as economic importance. Only a small number of historians have written on trade in California.[5] Bancroft (1874–1890), Dallas (1955), Lawrence (1931), and Ogden (1929, 1945) focus on the broad characteristics of trade. The remaining authors provide biographies of prominent merchants. None of these, however, focus on the individual transactions that constituted trade. Yet, it is these transactions that are of primary interest to economists and economic historians. In the one transactions-based study, David Langum, a legal scholar, analyzed the operation of the Mexican California legal system. What he found was that the government did not enforce decisions in civil cases—the local community (a multilateral institution) enforced them.[6] Because his focus was on the legal system, Langum provided limited information on the multilateral institution that supported intermerchant trade. By investigating the operation of these two types of institutions, this paper adds to the historical literature on trade in California.

To explore the hypothesis that multilateral institutions supported trade, I use evidence from primary and secondary sources and results from the game theory literature. Results for repeated moral hazard games with imperfect information lead to different predictions about behavior based on bilateral and multilateral interaction.[7] To differentiate between them and show that the legal system did not

[4] Multilateral institutions are based on repeated interaction within a group of individuals, whereas bilateral institutions are based on repeated interaction between pairs of individuals.

[5] See, Bancroft (1874–1890), Dakin (1939), Dallas (1955), Hague and Langum (1990), Lawrence (1931), Miller (1972), and Ogden (1929, 1945, 1981). There are also several well-known primary sources, notably Dana (1840).

[6] The local community included nearly all of the residents in a town. The only people it did not include were residents with few ties to other residents, such as transient Mexicans and unassimilated foreigners. Langum did not call the local community a multilateral institution. His descriptions suggest, however, that this is what he had in mind.

[7] The advantage of imperfect information is that it allows for disputes to occur in equilibrium. For a review of this literature, see Fudenberg and Tirole (1991). For models used by economic historians to

support trade, I use the correspondence of six prominent merchants—Henry Fitch, Thomas Larkin, William Leidesdorff, Nathan Spear, Abel Stearns, and Alpheus Thompson.[8] Because the collections of their papers include both incoming and outgoing correspondence with customers and other merchants, they provide a rich picture of trade. Primary accounts, written largely by visitors, and government records complement the merchants' letters by offering alternative perspectives on communities and exchange.[9]

The remainder of this paper is organized as follows. The first section discusses the background to trade in California. The second and third sections investigate the institutions that supported trade among merchants and their retail customers and among merchants as a group. The relationship between the two institutions is examined in the fourth section. The fifth section concludes.

TRADE IN CALIFORNIA

Mexico was the second of the three nations that governed California during the 19th century. Although Spain nominally held California from the 16th century, formal Spanish control of the region began in 1769 with the establishment of the first Roman Catholic mission. Mexico assumed control after independence in 1821 and ruled until 1846, when the United States annexed California. Mexico and the United States formalized this annexation in the Treaty of Guadalupe–Hidalgo in 1848, and California became a state in 1850. During the Spanish and Mexican periods, California was a thinly settled frontier. By 1846 a trickle of overland migration had become a small stream of settlers. The discovery of gold at Sutter's mill on January 24, 1848 kicked off an unparalleled movement of persons, animals, and equipment to California. The arrival of 250,000 people over four years, 1848–1852, brought its frontier status to an end.

Although Spain had not permitted the missions or residents to engage in trade, Mexico opened the coast to trade shortly after independence. This act coincided with a shortage of hides and tallow in world markets caused by political unrest in

examine these types of institutions, see Greif (1993) and Clay (1997). Opportunistic behavior may also occur because of adverse selection or, more likely, a combination of adverse selection and moral hazard. In the theoretical literature, there are very few repeated games with adverse selection. The dynamic would be that all the disputes would occur in the first few periods as types are revealed. To get disputes over a longer period of time—as was the case in California—one would either need a moral hazard component or inflows of new players. The latter was unlikely, because migration both into and within California was limited.

[8] Located in San Diego, Monterey, San Francisco, San Francisco, Los Angeles, and Santa Barbara, respectively, all six were prominent merchants. And at the end of the Mexican period Larkin and Stearns had the distinction of being the largest merchants in California. These collections include the following: Stearns, 12,500 pieces; Leidesdorff, 502 pieces; Fitch, 3 boxes and 5 folders; Spear, 2 boxes; Larkin, 17 boxes (the letters have been published in 10 volumes); and Thompson, 1 book of published letters and 1 portfolio.

[9] Few other written records exist, because many residents were illiterate, and there were no newspapers.

South America.[10] Seeking alternative sources of supply, Latin American and later Boston firms sent ships to California. Because they controlled most of the coastal land between the San Francisco Bay and San Diego, the twenty-one missions were the primary producers. The missions' dominance ended abruptly in the mid-1830s, when the Mexican central government secularized them, reducing the missions to the status of parish churches and stripping them of their land.

In the early 1830s, dominance in trade shifted from the Roman Catholic missions to individual producers. Despite the opposition of the missions, the Mexican government had offered land grants to individuals in the 1820s. As early as 1830 these grants had created a new class of producers. With the exception of a few in the interior, such as John Sutter's New Helvetia, land grants were located near the coast (Fig. 1). Ranging from a few acres to over 100,000 acres in area, most were used as cattle ranches. Ranch life, as it had with the missions, revolved around the yearly *matanza*. Once it was complete, the cowboys began to dry the hides and render the fat. Before the onset of the rains made the dirt paths impassable, the hides and tallow were loaded on oxcarts and taken to the nearest town, where they passed from ranchers to merchants and eventually onto the ships.

The rise of individual producers shifted the locus of trade to the towns that lay along the coast. Virtually all the individuals of European or mixed European–Native American ancestry—artisans, teachers, soldiers, government officials, farmers, ranchers, merchants, and their families—lived in or near the towns. By 1840 the population of San Diego had reached 150; Los Angeles 900; Santa Barbara 1800; Monterey 1600; San Francisco and San Jose together had 1330 residents.[11]

In these towns, resident merchants began to act as intermediaries or middlemen between the wholesale and the retail markets. Predominantly British or American by birth, many of these merchants arrived in the 1820s and early 1830s as ships' captains or supercargoes. Once in California, they learned Spanish, and, with few exceptions, converted to Catholicism, became Mexican citizens, and married into local families. With the transition from a small number of large producers to a large number of smaller producers, merchants took on the tasks of selling goods and monitoring credit. They supplied their customers with imported and domestically produced goods that ranged from damask, mustard, sugar, rum, brocade, and

[10] On beginnings of the hide and tallow trade and its later development, see Dallas (1955).

[11] Bancroft (1874–1890) III, pp. 611, 632–633, 649, 667, 698, and 699. The population of California exclusive of Native Americans was 4250 in 1830, 5780 in 1840, and 6900 in 1845. These estimates are on the low side because of the undercounting of foreigners. Bancroft (1874–1890) III, p. 699 and IV, p. 617.

The Native American population declined from 300,000 at the beginning of the Spanish period to 150,000 in 1845 (Bean and Rawls (1988), p. 132). Native Americans' role in trade is hard to assess. Most of them lived in the interior and were involved in ongoing hostilities with the residents. Of the Native Americans who remained near the coast, many provided the labor for households and ranches. Only a handful, however, ever received land grants and raised cattle.

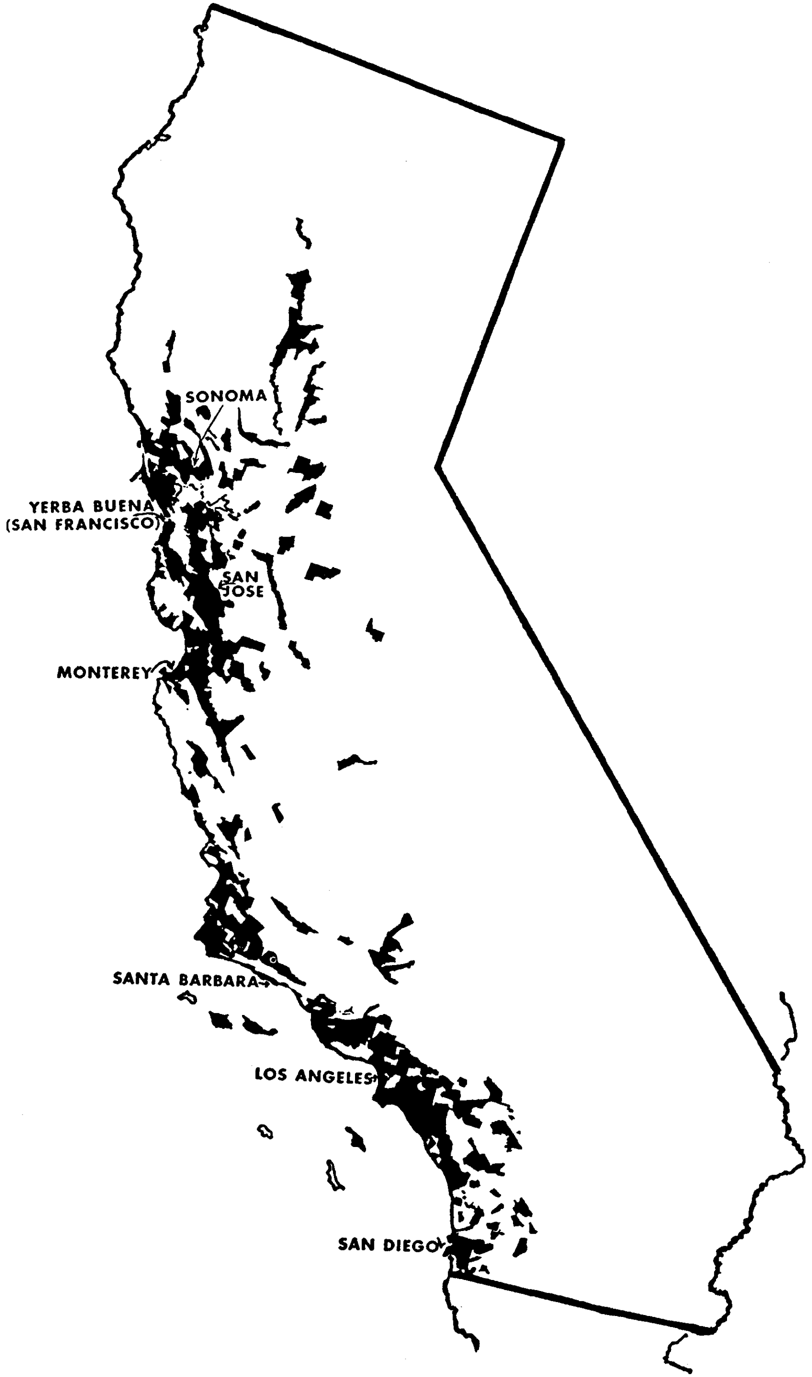

FIG. 1. Land grants in California to 1846. *Source.* Robinson (1948), p. 68, as reprinted in Bean and Rawls (1988), p. 120.

plates to beans, corn, flour, lumber, and wine.[12] Most exchange involved the extension of credit for 12 to 18 months. The credit ranged from small sums to a few thousand dollars, which represented five or more years worth of a semi-skilled worker's wages.[13]

In addition to their retail sales, large merchants along the coast actively engaged in trade with one another, often on credit. These merchants typically owned ranches, flour mills, and other businesses besides substantial retail establishments. Unlike petty or small merchants, they often bought and sold goods, collected debts, and formed partnerships to buy abroad with one another. Virtually every transaction involved the extension of credit, because shipping goods unaccompanied to a merchant in a distant town and settling debts later was less costly than face-to-face barter. A contract defined the precise nature of their agency relationship. In a debt contract, the agent agreed to repay a fixed amount, whereas in consignment and partnership contracts, he agreed to provide trade-related services in return for a share of the profits.[14]

Retail and intermerchant trade took place in a politically tumultuous environment. In an 1846 statement on California, Thomas Larkin wrote, "During this time [1836–1845] several bloodless Revolutions have taken place, and almost every Mexican Commander and his Troops have been expelled."[15] The merchants monitored the political situation closely and tried to stay out of trouble, although they did not always succeed. Thomas Larkin stated in an 1842 letter: "I never meddle seriously in their politics."[16] Open smuggling, however, brought Abel Stearns into conflict with the government in 1835 and again in 1840.[17] Despite Stearns's experience, the political vagaries of operating in California were largely just an annoyance. Successive governors did little to impair trade because they relied on revenue from customs duties.

Despite the political turmoil, trade appears to have expanded. Alfred Robinson, the resident agent of Bryant and Sturgis between 1829 and 1842, observed, "At first, the change [secularization] was considered disastrous . . . but the result, however, proved quite the contrary. Individual enterprise, which succeeded, has placed the country in a more flourishing condition."[18] Quantitative estimates of the volume of trade have to be viewed with some skepticism because of

[12] Stearns Collection, Box 71, Envelope, 1833. John Ebbets to Abel Stearns, San Pedro, April 1833. Larkin (1951–1968) I, p. 35. Alpheus Thompson to Thomas Larkin, March 12, 1840.

[13] Larkin (1951–1968) I, p. 217. Abel Stearns to Thomas Larkin, Los Angeles, May 3, 1842. Spear Collection, Box 1. Jacob Leese to Nathan Spear, October 27, 1837.

[14] In partnership contracts, the agent also usually supplied capital on an equal footing with the other partners. See Ogden (1981) and Miller (1972).

[15] Larkin (1951–1968) IV, p. 314. Thomas Larkin, Description of California, Monterey, April 20, 1846.

[16] Thomas Larkin to Faxon Atherton, October 20–21, 1842 in Nunis, Ed., "Six New Larkin Letters," p. 70. Cited in Hague and Langum (1990), p. 85.

[17] Ironically, the government resolved the problem by making him the customs administrator in 1841. Dakin, (1939), pp. 92–93.

[18] Robinson (1846), p. 219. See also Bryant (1848), pp. 444–445.

smuggling and the bribery of customs officers.[19] Nevertheless, the rise from $241,000 or $300,000 in 1839, depending on the source, to $400,000 in 1846/7 supports the view that trade was growing.[20] Between 1839 and 1846, exports rose from 60,000 to 85,000 hides, 500,000 to 1,000,000 pounds of wheat, and $10,000 to $20,000 worth of furs. The exports of tallow, the only good that experienced decline, apparently fell from 3.4 to 1.5 million pounds. In 1846 California also had several new exports, which included 1,000,000 feet of lumber, $10,000 worth of soap, and 1,000 barrels of wine and brandy.[21]

EXCHANGE IN THE LOCAL COMMUNITIES

Exchange within a local community frequently occurred on credit. The merchants' papers and the surviving ledgers list thousands of individual transactions. In 1837 Jose Antonio Yorba had an outstanding debt of $467.75 with Abel Stearns, a Los Angeles merchant. In 1843 Mariano Castro acknowledged a debt of $1206.38 to Thomas Larkin, a Monterey merchant. Many credit transactions were more modest in scale. In 1834 Stearns gave Antonio Osio and José Lugo $65.75 and $117.44 worth of goods on credit. In 1843 Nathan Spear, a San Francisco merchant, gave Bruno Bernal and Ysidrio Briones $3.50 and $8 worth of goods on credit.[22] Residents incurred these debts at a time when a rifle cost $30, an ax $4, and earnings of a $1 or $2 per day made by miners at a small gold placer were considered very good.[23]

What is known about credit between residents, other than merchants, comes largely from the legal system. The local judicial officer, the *alcalde,* customarily drafted contracts and maintained an archive of them. Surviving contracts include, for example, an 1839 debt contract between Ruiz and Sepúlveda, and a 1844 mortgage owed by Montenegro to Aguirre.[24] These alcalde-drafted contracts, as well as other written contracts, and oral contracts subsequently became the basis for lawsuits. At least 141 lawsuits for debt collection were filed in Monterey between 1831 and 1846.[25] In 1842, for instance, a Monterey carpenter brought suit to recover payment for a large table that the defendant had ordered. By making the table prior to receiving payment, the carpenter had effectively extended $12 in credit.[26] The bankruptcy of Rafael Gallardo in April 1845 reveals

[19] See de Rosamel (1958), p. 71.

[20] Douglas (1929), p. 108. de Rosamel (1958), p. 71. Bryant (1848), p. 446.

[21] de Rosamel (1958), p. 71. Larkin (1951–1968) IV, p. 305. Thomas Larkin, Description of California, Monterey, April 20, 1846.

[22] *Yorba,* California Historical Documents, List of Outstanding Debts, January 1, 1837. *Castro,* Larkin (1951–1968) II, pp. 10–11. *Osio and Lugo,* Stearns Collection, Box 71. Envelope 1834 (miscellaneous business and legal papers). *Bernal and Briones,* Spear Collection, Box 1. Miscellaneous Accounts.

[23] Parker (1942), pp. 57–58. Larkin (1951–1968) I, p. 217. Abel Stearns to Thomas Larkin, Los Angeles, May 3, 1842.

[24] Langum (1987), p. 166, footnote 7.

[25] Langum (1987), p. 128.

[26] Langum (1987), p. 99.

the extent to which individuals obtained credit from different sources. Gallardo owed $2289 to nine individuals, three of whom were not involved in trade.[27]

Although some credit contracts ended in lawsuits, credit relations were generally harmonious. Most debts were eventually paid, although, as visitors to the coast noted, rarely on time. In 1840 Sir James Douglas of the Hudson's Bay Company observed, ''A farmer . . . will often forget his liabilities and sell elsewhere the produce he intended for his creditor, who may have to wait another year, before he receives payment.''[28] The merchants complained bitterly about slow payment. They and others, however, continued to extend credit. By 1847 William Garner estimated, ''All the farmers are, with a very few exceptions, deeply in debt to American merchants. I think I may say without any fear of exceeding the truth, that half a million dollars would scarcely be sufficient to cover their debts.''[29]

The harmony of the system cannot be attributed to the innate honesty of the participants. Economic crimes such as robbery and theft, particularly cattle theft, occurred fairly frequently. In July 1840, for instance, 13 of the 22 people in the Los Angeles jail had been charged with robbery or theft.[30] A priest stole goods from Thomas Larkin's branch store in Santa Cruz, and a San Jose merchant, George Bellomy, complained that his shop had been robbed several times.[31] Accepting credit and later refusing to repay it was tantamount to theft. Thomas Larkin's reminder to Salvador Vallejo in 1843, ''This is the third person who has refused to take the word of D. Salvador Vallejo at his own request for a small debt,'' suggests that Vallejo had done just that.[32]

The success of credit relations is also not attributable to the operation of the Mexican California legal system. In economic models, the courts often operate costlessly; in reality, however, they involve real costs.[33] If going to trial is costly, individuals will tend to settle lawsuits rather than incur the costs.[34] In line with this, in Mexican California we observe very high rates of settlement in the mandatory pre-trial conciliation hearings.[35] Settlement, however, depends critically on the presence of an enforcement mechanism. Usually this enforcement mechanism is the government. If the case reaches trial and the courts make a decision, then the sheriff will go out and seize assets to cover the debt. In Mexican California, however, the government did not enforce decisions in civil cases.[36]

[27] Langum (1987), p. 54.

[28] Douglas (1929), p. 107. See also de Rosamel (1958), p. 69.

[29] Garner (1970), p. 181.

[30] Langum (1987), p. 75.

[31] Larkin (1951–1968) I, p. 228. Josiah Belden to Thomas Larkin, Santa Cruz, May 29, 1842. Larkin (1951–1968) III, p. 180. George W. Bellomy to Thomas Larkin, San Jose, May 6, 1845.

[32] Larkin (1951–1968) II, p. 3. Thomas Larkin to Salvador Vallejo, January 11, 1843.

[33] Costs in this context not only include direct costs of collection, but also the opportunity cost of the plaintiff's time and any delay in receipt of payment.

[34] On the types of cases that parties will litigate, see Priest and Klein (1984).

[35] See Langum (1987), Chap. 4.

[36] The government could have provided contract enforcement in civil cases as it did in criminal cases, but it did not. For a discussion of the reasons why, see Langum (1987), Chaps. 5 and 10.

The absence of government enforcement in civil cases is well documented. David Langum found: ‘‘the courts were inefficient, at times unpredictable, and they lacked any semblance of effective enforcement techniques.’’[37] Contemporary observers also expressed dissatisfaction with the legal system. Prominent Californians commented on the lack of enforcement at least three times, twice before the Mexican government and once as part of an inaugural address in Los Angeles.[38] James Alexander Forbes, an English merchant, noted in an 1845 letter to the governor ‘‘in the present state of this District it is very difficult to collect any debt when the debtor himself does not voluntarily pay.’’[39] His point is substantiated by court records from Monterey—the capital of California during much of the Mexican period—that span 1831 to June 1846. Of the 374 civil suits filed during this period, 65% were for debt collection or recovery of damages; yet, the records fail to provide a single example where a debtor's assets were seized to satisfy a judgment.[40]

The absence of enforcement raises two questions. What role did the courts play? And how were its decisions enforced? The answer to the first question is a significant role. The answer to the second question is a private-order institution. Disputes arose as a result of imperfect information and uncertainty in the economy. Uncertainty meant that agents were subject to shocks in their ability to pay. A dispute regarding a debt contract might occur because the agent genuinely could not pay or because he (falsely) claimed that he could not pay.[41] Because information was imperfect, a principal could not necessarily observe which of these two was the case. In more complex contracts, disputes could occur for other reasons as well. When disputes did arise, the individuals involved brought them to the courts. There the parties settled, or the local judicial official rendered a decision. The settlement or decision was ultimately enforced by the institution.

Before investigating the nature of this institution, it is useful to consider why using the courts together with the institution might have been preferable to just the institution. In other words, why might institutional enforcement of the court's decisions have been preferable to institutional enforcement of the contract directly? The courts appear to have offered two advantages. First, given the presence of imperfect information, some agents would be incorrectly accused of noncompliance with the contract. Direct enforcement would require punishment of these individuals.[42] The courts could, however, devote resources to investigations of the situation, which could prevent costly and unnecessary punishment. Second, direct enforcement may have proven unnecessarily costly because of the

[37] Langum (1987), p. 273.

[38] Langum (1987), pp. 46–47.

[39] Forbes to Secretary of Governor, October 3, 1845. Cited in Langum (1987), p. 147. See also the other examples listed in Langum (1987), p. 147, and Stearns Collection, Box 22, Lewis Burton to Abel Stearns, Santa Barbara, October 7, 1837.

[40] Langum (1987), pp. 115, 123.

[41] Problems may also occur if principals make mistakes in assessing an agent's ability to pay.

[42] See Fudenberg and Tirole (1991), Section 5.5.

need for immediate payment. The courts could impose appropriate (less costly) remedies.[43]

The continued use of credit and the courts indicates that an institution provided agents with incentives to comply with their contracts.[44] These incentives could have arisen as the result of either repeated bilateral or repeated multilateral interaction.[45] Predictions regarding the patterns of interaction, settlement of disputes, and nature of punishment differ for the two. Under bilateral interaction, one would expect to observe ongoing interaction between pairs of individuals. Should a dispute arise, an individual would only settle if he expected to continue the relationship. If punishment were necessary, only one individual, the creditor, would punish the cheater. Under multilateral interaction, one would expect to observe ongoing interaction between members of the group, although particular pairs of individuals may interact for periods of finite duration or infrequently. Should a dispute arise, an individual would settle, even if he did not expect to interact with that particular member in the future, as long as he expected to interact in the future with other members of the group. If punishment were necessary, multiple individuals would punish the cheater.

The hypothesis that the institution was based on multilateral interaction is substantiated by two types of evidence. The first type is from the legal system. By design, it created an incentive for participants to comply voluntarily with its decisions. Before filing a suit, the plaintiff and the defendant had to participate in a mandatory conciliation hearing. For it, the plaintiff and defendant each chose an *hombre bueno,* literally a good man. In the hearing, the two *hombres buenos* and local judicial officer, the alcalde, heard the facts of the dispute and then attempted to reconcile the two parties. Whatever the outcome, the plaintiff and defendant had involved three respected members of the community in the decision. The striking success of conciliation—85% of cases were resolved at this stage—and the high rates of compliance suggest that the implicit threat of multilateral punishment created an incentive for compliance with the outcome of the conciliation hearing.[46]

The merchants' use of the legal system with particularly obstinate debtors indicates that this multilateral punishment was more severe than what they could impose bilaterally. A priori, one might have expected merchants' relationships

[43] The courts may not have been more efficient, however. Once norms are established that state that individuals will take disputes to the court for resolution, they may be difficult to change. See, for example, Greif (1993, 1994).

[44] Despite the benefits to extending credit, individuals would not have done so if it was anticipated that the recipient (the agent) would act opportunistically and retain all or part of the funds owed him. Unless, before undertaking the transaction, an agent could credibly commit not to engage in opportunistic behavior once he had the goods in his possession, others would not extend credit to him. Thus, for the gains to be realized, an institution must have existed that enabled agents to overcome their commitment problem.

[45] For a discussion in the context of a fully developed model, see Clay (1997).

[46] See Langum (1987), Chap. 4. Indeed, the point of David Langum's book was that in California the community itself provided the enforcement mechanism.

with their customers to be predominantly bilateral. This would have been particularly true if a merchant were the sole supplier of goods that his customers needed for survival. Manufactured goods and luxury foodstuffs were, however, not necessary for survival. Furthermore, a needy customer could obtain whatever he desired from other merchants, wholesalers, whalers, and even other residents at a price. Merchants used bilateral punishment as a first line of defense. At the end of the day, however, they filed suits against some creditors and did so presumably because they believed that it would enhance their chance of recovery. In Monterey, for instance, merchants brought suit for nonpayment of debts in at least 22 instances between 1831 and 1846.[47]

The second type of evidence is studies of interaction in other, similar settings. Towns in Mexican California were small, relatively homogeneous, and characterized by strong kinship ties of residents, which arose because of low rates of immigration and large family sizes. Anthropologists have studied social control in tribal villages, which had many of the same characteristics and where the government played little role or was nonexistent.[48] Legal scholars have examined issues of order in 18th century New England, where communities were small and religious ties strong, and on the overland trail, where no government had jurisdiction.[49] Economists have also investigated similar issues in game-theoretic settings where a small number of individuals interact repeatedly and face significant barriers to exit.[50] In all the foregoing examples, scholars found that the institutions were multilateral. This finding is not entirely unexpected. Multilateral institutions are both more flexible, because they do not require ongoing interaction between pairs of individuals, and offer more severe punishments, because many individuals may punish deviations from the norms rather than just one.

To provide individuals with incentives to deal with one another honestly, multilateral institutions require an information network, norms, and sanctions. An information network allows participants to monitor one another's behavior, and norms set standards for behavior. Newspapers, common sources of information in the modern era, did not exist in California at this time. Information therefore flowed along the informal channels—conversations with friends, neighbors, and relatives—common to small towns. The courts may have also provided information. When a case was brought, it allowed public evaluation of whether a deviation from communal norms had occurred. Although the content of these norms is not always apparent 150 years later, they appear to have been at least loosely based on the Mexican legal code. Cases about payments, contracts, and many other civil issues reveal familiar norms about ownership of private property

[47] This is based on Langum (1987), Table 9, p. 123 and statements in the text on that page that 45.8% of expatriate versus California litigation was debt collection.

[48] See, for example, Colson (1974) and Gluckman (1955).

[49] See Auerbach (1983) on New England and Reid (1980) on the overland trail. For a modern example, see Bernstein (1992).

[50] See the research on infinitely repeated games and random matching games cited in Fudenberg and Tirole (1991). For an historical example, see Milgrom, North *et al.* (1990).

and restitution. Other cases, such as one in which the Widow Verdugo sued a male relative for starting to build a house too distant from her own, reveal less familiar norms of familial behavior and reciprocity.[51]

The discussion has thus far left open the question of the sanctions that supported the institution. Threats of physical and religious sanctions have induced individuals to adhere to group norms in pre-modern and modern society.[52] The activities of the mythical, swashbuckling Zorro lend some credence to the possibility that physical threats supported trade in California, where Zorro is set.[53] Legal records provide a chronicle of murders, assaults, thefts, and other violent crimes. Coastal residents also engaged in intermittent warfare with the Native Americans who lived in the interior. The available evidence does not, however, identify violence as being used to enforce contracts.

The existence of a state religion and requirements that effectively forced foreigners to convert make it plausible that the threat of religious rather than physical sanctions, whether divine retribution or excommunication, supported trade in California. If it were true, one would expect priests to have had some role in dispute resolution and enforcement of contracts. Interestingly, not only did priests not have a role, they had to ask the *alcalde* or other government officials to intervene in cases of immoral conduct. In 1845, for instance, Bishop Garcia Diego wrote a letter to Governor Pio Pico asking him to end the ‘‘scandalous concubinage in which José de Jesús Vallejo and Soledad Sánchez have lived at Mission San Jose.’’[54]

Social and economic sanctions have also induced honesty in many settings. Social sanctions are hard to identify, however, because they are likely to arise in everyday interaction. The punishment for noncompliance might have come in the form of social ostracism or through more subtle means such as verbal indications of disapproval by friends and relatives. The purposes for which the Californians used the legal system indicate that social sanctions were important. For example, residents brought their marital problems to the alcalde, not because the court could do much about them, but to publicize the errant behavior and so exert pressure on the wrongdoer to reform.[55]

[51] Langum (1987), p. 135.

[52] The threat of violence maintains peace in some tribal societies (Colson (1974)). In modern societies, the Mafia or other groups involved in organized crime similarly use physical threats to ensure cooperation. In 18th century New England, it was the threat of religious sanctions that supported cooperation (Auerbach (1983)). Such threats may still be effective today for members of certain religious groups.

[53] First appearing in a 1919 pulp magazine and in a 1920 film, Zorro was the main character in several more films and later television shows in the United States. He induced cooperation, often from wealthy, unscrupulous individuals, at sword point.

[54] Cited in Langum (1987), p. 242. Other evidence of the church’s rather weak hold over the populace comes from visitors’ records of the keeping of the Sabbath and attendance at mass, which were alleged to be scandalous and low, respectively. See Phelps (1983), pp. 59, 62, 96; Colton (1850), p. 26, Garner (1970), p. 169.

[55] Langum (1987), Chap. 9.

Although the extent to which residents used economic sanctions is similarly hard to identify, merchants sometimes outlined their use of economic sanctions in letters. The general problem in identifying these sanctions is that much of a merchant's interaction with customers was oral. References to the implicit sanction—refusal to grant credit to individuals with bad reputations—occasionally found their way into merchants' writings, however. For instance, Faxon Dean Atherton recorded in his diary that " 'old Sanchez' came to purchase but [I] told him 'cash or no trade'."[56] The 41 letters that Thomas Larkin exchanged in the summer of 1842 with the managers of his branch stores are a rich source of information.[57] Six letters are particularly interesting because they discuss individuals' payment histories and link these to the provision of credit.[58] For example, the Santa Cruz manager wrote to Larkin, "I think you can trust him [Peter Collins] to a small amount with safety. What I have trusted him here he has always paid very well."[59] In another letter, Larkin advised the manager of the Santa Cruz store to: "Collect all you can, under promise of trusting again by & by."[60] In a third letter, the Gilroy manager warned, "If a man by the name of Philippe Aguala should want any credit dont trust him."[61] Reputation was a determinant of the ability to obtain credit more broadly. Henry Fitch wrote to his partner James McKinley in 1842: "It would be well I think for you to go to Monterey about that time as you will know more about the People there than he, Temple, does, who to trust etc.; but I would trust but very little, and only to good People."[62]

In sum, a multilateral institution provided residents with incentives for honesty by linking past behavior and future interaction. Residents benefited from the operation of the institution because they could realize the gains to entering into agency relationships and, more specifically, credit contracts. Residents learned of an agent's past behavior and monitored current behavior through an information network. Community norms and the agent's contract with the principal defined standards of behavior. The threat was that those who failed to comply with these standards would be subjected to social and economic sanctions. If information is imperfect and the environment is characterized by uncertainty, however, disputes will arise. Residents took these disputes to the courts, where many were settled, and some were litigated. Failure to adhere to a settlement or court decision would lead to the imposition of social and economic sanctions. Hence, residents paid

[56] Atherton (1964), p. 88 cited in Langum (1987), p. 206. See also Stearns Collection, Box 59, Thomas Shaw to Abel Stearns, San Diego, April 9, 1834.

[57] There are no letters for other years or other branches. Larkin may have decided that these stores were not sufficiently profitable, or the letters may have been lost. 26 of the 41 letters refer to general issues of credit, and 13 of these 26 mention specific individuals or circumstances.

[58] Of the remaining seven, six describe problems with collection, and one discusses individuals who had not received credit.

[59] Larkin (1951–1968) I, p. 255. Josiah Belden to Thomas Larkin, Santa Cruz, July 31, 1842.

[60] Larkin (1951–1968) I, p. 272. Thomas Larkin to Josiah Belden, Monterey, August 18, 1842.

[61] Larkin (1951–1968) I, p. 257. Talbot Green to William Faxon (Larkin's clerk), Gilroy, August 1, 1842. See also, Larkin I, pp. 253, 278, 295.

[62] Larkin (1951–1968) I, pp. 236–240. Henry Fitch to James McKinley, San Pedro, June 9, 1842.

their debts and adhered to settlements and court decisions. Because the institution created incentives for the agent to be honest ex post that were known ex ante, principals could trust agents, and trade could be based on credit.

EXCHANGE AMONG MERCHANTS

The largest merchants regularly extended credit to one another in the course of entering into agency relationships. Agents sold goods, collected debts, and transacted other business for individual merchants or a partnership of merchants. In 1839 Abel Stearns, a Los Angeles merchant, received $1022.50 worth of goods on consignment from William Hinckley, a San Francisco merchant.[63] Stearns also collected a number of debts for Alpheus Thompson, a Santa Barbara merchant. John Temple, another Los Angeles merchant, similarly collected debts for Robert Elwell, who was a Santa Barbara merchant.[64] In 1838, Jacob Leese, a San Francisco merchant, was involved in a partnership with Nathan Spear, a Monterey merchant who later moved to San Francisco, and William Hinckley. Between 1839 and 1842, Henry Fitch, a San Diego merchant, bought goods abroad and sold them on the coast for a number of different partnerships.[65]

Entering into an agency relationship was in many cases cost-reducing, but it also opened up the possibility that the agent would act opportunistically. The potential gains to doing so were often large. For instance, in 1845 Nathan Spear owed Thomas Larkin, a Monterey merchant, $2000.[66] In 1843, Abel Stearns owed Henry Mellus $3479.33.[67] Partnerships had greater potential for problems, because of the sums involved. By 1846 Abel Stearns had invested more than $3000 in his one-quarter share of the *Nymph* voyage.[68] At one point in 1836, William Hinckley owed Nathan Spear more than $16,000.[69] The sums involved were large in relative and absolute terms. By the mid-1840s Thomas Larkin and Abel Stearns, the two largest merchants of the day, had accumulated assets worth $38,000 and $55,000, and semi-skilled workers rarely earned more than $500 per year.[70]

Despite the potential for opportunistic behavior, interaction among the California merchants was characterized by trust and a low level of conflict. Merchants

[63] Stearns Collection, Box 72, Envelope (miscellaneous business and legal papers) 1840.

[64] Stearns Collection, Box 71; Envelope (miscellaneous business and legal papers) 1836. Stearns Collection, Box 65. Alpheus Thompson to Abel Stearns, Santa Barbara, April 28, 1834. Stearns Collection, Box 22. Robert Elwell to Abel Stearns, Santa Barbara, April 29, 1836.

[65] See Ogden (1981) and Miller (1972).

[66] Spear Papers, Box 1. Thomas Larkin to Nathan Spear, ca 1845.

[67] Stearns Collection, Box 73; Envelope 1843 (miscellaneous business and legal papers). Abel Stearns to Henry Mellus, Los Angeles, January 7, 1843.

[68] California Historical Documents, Box 2. Abel Stearns, Trial Balance for 1846.

[69] Spear Papers, Box 1. Account current between Nathan Spear and William Hinckley, July 1836.

[70] For Larkin and Stearns's net worths, see Bancroft (1874–1890) IV, p. 706, and California Historical Documents, Box 2, Abel Stearns, Trial Balance for 1846. For workers' earnings, see Larkin (1951–1968) I, p. 217, Abel Stearns to Thomas Larkin, Los Angeles, May 3, 1842, and, Spear Collection, Box 1, Jacob Leese to Nathan Spear, October 27, 1837.

periodically complained to or about one another in their letters. The 98 letters in the Larkin Collection written during the years 1839 to 1842 between Thomas Larkin and other California merchants indicate, however, that much of this was just talk. In only four instances did merchants request compensation or arbitration. In two cases relatively minor disputes arose from debt collection and a loan. Two more serious disputes occurred because the goods delivered did not meet the original quality and quantity specifications.[71]

The trust did not arise because the merchants were innately honest. That the merchants acted in their self-interest is evident from Hugo Reid's 1840 request that Abel Stearns convey his respects to his friend, the ex-prefect, to which he added, ''I say my friend, not our friend because *comerciantes* are only *compadres de la bola*.''[72] James Forbes, a San Francisco merchant, put it more bluntly in 1845 when he wrote to Thomas Larkin, ''self interest is the predominant passion in the human breast and that in California, this passion is mingled with that of bitter enmity wherever those interests clash.''[73] This point came up a couple of weeks later when John C. Jones, a Santa Barbara merchant, wrote: ''There is no friendship in trade.''[74]

Nor was the trust attributable to the operation of the legal system together with enforcement by the local institution. Three factors prevented the merchants from using the legal system. First, complex jurisdictional problems made resolution of disputes between individuals who did not live in the same town all but impossible. Second, even if a judicial decision could have been reached, the legal system did not provide state enforcement of contracts. This was particularly problematic for the merchants, because community enforcement was only effective if the parties lived in the same town. Third, although the legal system in Mexican California was based on civil law, the largely Anglo-American merchants used common law in their dealings with one another. Therefore, the local court could not be relied upon to interpret agreements. As a result, merchants almost never used the courts to settle disputes.[75] I could find only one instance in which merchants tried to do so.[76]

Merchants either settled disputes privately or, in rare instances, engaged in

[71] Letters to Larkin from Aguirre (1 letter), Burton (3), Cordua (2), Den (5), Fitch (5), Hinckley (8), Jones (8), Leidesdorff (1), McKinley (3), Mellus (2), Henry Paty (3), John Paty (7), Rae (4), Robbins (1), Robinson (2), Spear (13), Stearns (2), Temple (12), Thompson (13), and from Larkin to Jones (1), Temple (2) in Larkin (1951–1968) I.

[72] Stearns Collection, Box 52. Hugo Reid to Abel Stearns, 1840 [?].

[73] Larkin (1951–1968) III, p. 113. James Forbes to Thomas Larkin, San Francisco, April 1, 1845.

[74] Larkin (1951–1968) III, pp. 78–79. John C. Jones to Talbot Green, Santa Barbara, March 21, 1845.

[75] For more on the role of alternative institutions in the provision of contract enforcement, see Auerbach (1983), Bernstein (1992), Ellickson (1991), and Macauley (1963).

[76] In Monterey, although 32 of the 374 civil cases filed were between expatriates, none were between merchants. Langum (1987), p. 225. For the one example where they did use the legal system, see Langum (1987), p. 225, footnote 54. It is unclear why the parties involved chose to pursue this strategy rather than arbitration.

arbitration.[77] Arbitration served the same purpose as the courts. As at the local level, imperfect information and uncertainty led to disputes. Although shocks could be to the agent's ability to pay, they more often involved changes in prices or damage to goods. Thus, agents could act opportunistically and report low prices or damage when they had not occurred. Because information was imperfect, a principal could not always determine whether the agent was being honest or dishonest. In instances where settlement of the dispute was impossible because of the complexity of the dispute or the amount of money involved, they turned to arbitration.[78] The arbitrators, who were selected by the two parties, were typically other merchants. Usually numbering two, the arbitrators heard the case and rendered a decision. In case of a disagreement, they jointly selected a third arbitrator, who decided the case.

The continued use of agency relationships and arbitration indicates that an institution provided agents with incentives to comply with their contracts. In the absence of such an institution, one would not expect to observe the use of agents. The question is whether this institution was based on multilateral or bilateral interaction. What differentiates the two is the patterns of interaction, settlement, and punishment. A bilateral institution is characterized by frequent, ongoing transactions between a pair of individuals, settlement of disputes only if the relationship is expected to continue, and punishment by a single individual. In contrast, a multilateral institution is characterized by frequent, ongoing transactions among a group of individuals, although not necessarily between pairs of individuals; settlement of disputes, even if the relationship is not expected to continue, as long as an individual expects to interact with other member of the group in the future; and punishment by multiple individuals.

The hypothesis that the institution was based on multilateral interaction is substantiated by three types of evidence. First, merchants routinely entered into agency relationships known to be of finite duration. Most requests for goods and the collection of debts fell into this category. In 1842 Abel Stearns offered to take some lumber on consignment from Thomas Larkin. The two interacted only infrequently at this time, and Stearns's letter did not imply that interaction would be ongoing. Partnerships also demonstrate the finite duration of most agency relations between members. Although Henry Fitch owned shares of one ship and four cargoes with seven distinct groups of individuals between 1839 and 1842, after 1842 he did not enter into any further partnerships with these individuals.[79]

Second, merchants virtually always settled disputes that arose, even if they did not expect to have future interaction. They tried to prevent disputes and, failing that, resolve them quickly and amicably. For instance, the California merchants often arranged for an impartial survey of goods that arrived damaged.[80] When

[77] For a discussion of arbitration, see Langum (1987), Chap. 8.

[78] Because they were not part of the legal system, arbitrations were less likely to leave a written record. I have been able to find references to 18 arbitrations.

[79] See Ogden (1981) and Miller (1972).

[80] Larkin (1951–1968) I, p. 61. Isaac Williams to Thomas Larkin, October 17, 1840. For another

disagreements arose, most letters expressed a desire for an amicable resolution to the problem.[81] After making a mistake in an 1834 bill drawn on Abel Stearns that he had given to a third party, Thomas Larkin apologized profusely to Stearns. He requested that Stearns resolve the problem by charging him the amount overpaid rather than by rejecting the bill.[82] Resolution of disputes was not, however, conditional on future interaction. William Rae in an 1844 letter to Thomas Larkin indicated that he expected settlement of their dispute, although he did not intend to use Larkin again as an agent: ‘‘If you will settle your a/c [account current] in an honest & honorable manner . . . I shall not in the future wish the favor of any more mercantile transactions with you.’’[83] More generally, because most relationships were of finite duration, the parties did not know when they settled whether they would have future interaction.

Before looking at the third type of evidence—that multiple individuals punished opportunistic behavior—it is instructive to examine how the institution provided incentives. The information network served the dual purpose of providing members with information regarding the activity of other members and acting as a conduit for news. For instance, drawing on knowledge gleaned from the information network, John C. Jones flatly told Thomas Larkin in 1845 that the reported price at which Larkin sold his rum on consignment was low and the prices that Larkin charged him for the butter and the keg were outrageously high.[84] Henry Fitch's 1839 letter to Abel Stearns documents the importance of the information network for passing on market news. ‘‘I have not received the news I expected from the North, therefore I hope you will write me . . . what arrivals at Monterey when expected down the coast etc., etc.’’[85] Nathan Spear alluded to the thickness of the information network and one of the methods of information transmission when he wrote to Stearns in 1836. ‘‘You have no doubt heard of Capt. Steels misfortune before this, if not Capt. Walter will tell you all about it.’’[86]

Shared norms allowed merchants to evaluate, based on this information, whether misconduct had occurred. These norms drew on common law and prevailing practice and covered contingencies such as liability when a merchant refused to pay a bill of exchange that was now held by a third party or when goods arrived damaged.[87] When William Hinckley summarized the reasons for his dispute with James McKinley in an 1839 letter to Abel Stearns, he referred to

example, see Larkin (1951–1968) I, p. 138. Drafts of Affidavits, David Spence and James Watson, November 30, 1841.

81 Larkin (1951–1968) I, p. 190. James Scott to Thomas Larkin, Santa Barbara, April 12, 1842. Larkin (1951–1968) I, p. 66. John Paty to Thomas Larkin, Honolulu, December 21, 1840.

82 Stearns Collection, Box 39. Thomas Larkin to Abel Stearns, Monterey, January 7, 1834.

83 Larkin (1951–1968) II, p. 214. William Rae to Thomas Larkin, Yerba Buena, September 2, 1844.

84 Larkin (1951–1968) III, pp. 78–79. John C. Jones to Talbot Green, Santa Barbara, March 21, 1845.

85 Stearns Collection, Box 26. Henry Fitch to Abel Stearns, San Diego, September 7, 1839.

86 Stearns Collection, Box 60. Nathan Spear to Abel Stearns, Monterey, March 16, 1836.

87 Langum (1987), p. 183.

several of these norms: "McKinley has proved himself to be a partner in the business with Hall, by having paid debts of his"; "McKinley has paid all the other debts on the same footing with mine"; and "McKinley's alleged reason for not paying was, that it was a gambling debt which the acct proves to be false."[88]

Of the four types of sanctions—physical, religious, social, and economic—that could potentially have played a role in supporting these norms, the first three do not appear to have been important for the California merchants. If physical or religious sanctions were important, one would expect evidence of this to appear in letters or other materials. The historical record, however, contains no evidence on the use of either, except for a few references to God. All of these were in the vein of Henry Fitch's remark "I wish to God this voyage was ended."[89] The last of the three, social sanctions, usually requires proximity to be effective. Because the merchants lived in different towns along the coast, economic sanctions were likely to impose higher costs. Social sanctions may have carried some weight among the few merchants who were related by blood or marriage. The merchants' letters, however, offer little indication that such ties constrained them.

The merchants' use of economic sanctions is hardly surprising, given that such sanctions have played an important role in supporting trade among merchants in other settings. What is important here, though, is that multiple merchants punished individuals who violated group norms. For instance, in 1837 William Hinckley committed some widely reported acts, which appear to have involved agreeing to exchange hides for cash, taking the cash, and failing to produce the hides.[90] California merchants responded by refusing to give him further, badly needed credit.[91] In 1845–1846 Alpheus Thompson was having significant problems meeting his debt obligations. Although California merchants reassured his foreign creditors, they were unwilling to put additional capital at risk. Their position became evident when none of the merchants in Monterey would give his hunters supplies on credit.[92] Collective punishment eventually led individuals to resolve the problem. James McKinley refused to pay debts incurred by his partner, Charles Hall, after Hall left the business in 1837. He relented, however, in late 1839. William Hinckley wrote to Abel Stearns: "After some trouble I am happy to be able to say that McKinley has settled the affair by consenting to pay in full of all claims, and also to go to Monterey to adjust the affairs of the Don Quixote."[93]

This multilateral institution, like the local institution, created incentives for honesty by linking past behavior and future interaction. Merchants benefited from

[88] Stearns Collection, Box 34. William Hinckley to Abel Stearns, San Pedro, October 10, 1839.

[89] Stearns Collection, Box 26. Henry Fitch to Abel Stearns, San Diego, February 15, 1840.

[90] Spear Collection, Box 1. Stephen Reynolds to Nathan Spear, Oahu, December 12, 1837. Larkin (1951–1968) IV, p. 15. Thomas Larkin to William Hinckley, Monterey, October 1845. The timing of this is uncertain, because Larkin mentioned it many years later. Larkin's description does, however, date it as occurring before August of 1842.

[91] Spear Collection, Box 1. Stephen Reynolds to Nathan Spear, Oahu, May 1, 1838.

[92] Larkin (1951–1968) I, p. 203. Alpheus Thompson to Thomas Larkin, Santa Barbara, February 16, 1846. Nidever (1937) as cited in Langum (1987), p. 205.

[93] Stearns Collection, Box 34. William Hinckley to Abel Stearns, San Pedro, November 1, 1839.

the operation of the institution because they could realize the gains to entering into agency relationships with merchants in other towns. Interaction was supported by the information network, norms, and economic sanctions. Because of the uncertain nature of the environment and imperfections in the information network, disputes arose. If they could not be settled privately, as most were, merchants resorted to arbitration. Failure to comply with the arbitrators' decision would lead to the imposition of economic sanctions. Thus, merchants acting as agents were honest despite the potential for opportunism, resolved disputes when they arose, and complied with arbitrators' decisions. Because the institution created incentives for the agent to be honest ex post that were known ex ante, merchants could trust one another, and trade could be based on credit.

INTERRELATED INSTITUTIONS

The relationship between these two institutions is of particular interest because so little is known about the effect that institutions may have on one another. Understanding their relationship turns out to be important in this case for two reasons. First, it helps us understand the evolution of trade. As the balance of power in trade shifted from the missions to individual producers, several organizational forms could have emerged. One was that the firms sending goods to the coast would vertically integrate into retailing; another possibility was that merchants would emerge and would control large areas through branch stores; a third possibility was that merchants would emerge and remain essentially local. The question is why local merchants emerged. Second, it provides insight into the conditions under which certain types of institutions are likely to emerge. An active debate exists on spontaneous evolution of institutions.[94] This historical episode suggests that one of the preconditions for the evolution of merchant institutions may be the existence of an effective means for debt collection at the retail level.

Barriers to entry into and exit from these two institutions are the driving force behind this relationship. Barriers play a key role in the provision of incentives. Institutions create these incentives through the expectation of continuation of mutually beneficial interaction and the threat of punishment for deviation from accepted norms. The threat of punishment is made credible through the functioning of the information network, which enables individuals to monitor behavior. Barriers to entry ensure that it remains credible, by maintaining the existing channels of information transmission, and sufficiently severe, by keeping out those for whom sanctions are not effective. Barriers to exit guarantee that the expectation of continuation is fulfilled and enhance the effectiveness of sanctions by raising the cost of cheating and leaving.

The first barrier to entry to the local institution was simply reaching California. Foreigners, most of whom came from the East, could travel overland or by sea. Before the arrival of the Bidwell–Bartelson party in 1841, however, few people other than trappers made the trip overland. The alternative, traveling by sea

[94] Sugden (1989) provides a discussion of this literature.

around Cape Horn, the tip of South America, took a minimum of four months and involved hardship and physical risk.[95] For Mexicans, especially those from the west coast, geographic barriers were not the primary problem. The heart of the issue for them and for those foreigners willing to make the trip to Mexico was that they viewed California as a dusty and generally undesirable frontier. Despite the government's attempts to lure settlers with promises of land, livestock, and tools, few were willing to go.[96]

Once in California, individuals had to be both Mexican and Catholic to remain. Although these requirements did not constitute barriers for Mexicans, they did pose barriers for foreigners. As Richard Dana recorded in *Two Years Behind the Mast,* ''The people are naturally suspicious of foreigners, and they would not be allowed to remain, were it not that they conform to the Church.''[97] Some balked at giving up their religion or, more often, their citizenship. One could, as Thomas Larkin did, petition for permission to remain rather than become Mexican.[98] Doing so was costly, however, because the governor could revoke permission at any time. Practically speaking, foreigners also had to learn Spanish. This did not necessarily come easily. Thomas Larkin wrote to Abel Stearns in June 1833, after having been in California for fourteen months, ''I know but little Spanish,'' and explained that he had been unable to communicate with Don José Aguirre directly, because Aguirre ''did not know English writing.''[99]

Being Mexican and Catholic and speaking or learning to speak Spanish were not by themselves sufficient for new arrivals to become a part of the local institution. Immigrants had to develop ties to local residents. Prospective merchants did this by becoming clerks for other merchants, acting as ships' agents, or through other business activities, and by living in the town. In almost all cases, they also established family and kinship ties through marriage into local families. Richard Dana noted that ''By marrying natives, and bringing up their children as Roman Catholics and Mexicans, and not teaching them the English language, they quiet suspicion, and even become popular and leading men.''[100] Once an individual assimilated to the degree that they could trust and be trusted by other residents, family ties and geography acted as barriers to exit. Not everyone developed these ties, however. A small, unassimilated, often transient population of foreigners and some Mexicans existed on the periphery. Viewed as untrustworthy, the merchants and presumably others did not extend credit to them.

The multilateral institution that supported trade among the merchants also had barriers to entry. The first thing that individuals needed was the requisite skills. As a merchant, one had to be functionally literate and able to maintain at least rudimentary accounts. Because the residents spoke Spanish and the ships'

[95] See, for example, Dana (1840) and Farnham (1844).
[96] See Bancroft (1874–1890) III and IV and Hutchinson (1969).
[97] Dana (1840), p. 68.
[98] Hague and Langum (1990), p. 96–97.
[99] Stearns Collection, Box 39. Thomas Larkin to Abel Stearns, Monterey, June 2, 1833.
[100] Dana (1840), p. 68.

captains and the firms they represented were generally American or British, a merchant also had to speak both Spanish and English. These skills could, however, be acquired while acting as a supercargo for a ship or clerking for another merchant.

The primary barrier seems to have been capital. Smaller merchants were often marginally liquid. Lewis Burton, for example, wrote to Abel Stearns: ‘‘I should like to trade with you for aguardiente and corn but have not the cash by me at present therefore can’t make you an offer.’’[101] Even if they had the sums required to participate in partnerships or profitably ship goods to other merchants, small merchants did not use larger merchants as agents, probably because they viewed the prospect of a large, undiversified investment as too risky. Larger merchants did not use smaller merchants as agents either. The driving factor seems to have been that larger merchants had more at stake in continuing interaction and were therefore less likely to act opportunistically. Thomas Larkin encountered this bias against small merchants during his early years as the owner of a small store-cum-grog shop. Nathan Spear described him as poor in 1837, five years after he had arrived.[102] It was only after 1838—when Spear’s departure for San Francisco had created an opportunity for Larkin to grow, and he had accumulated approximately $11,000—that he began to actively participate in intermerchant trade.[103] In contrast, Hawaiian merchants such as Nathan Spear, John C. Jones, and Alpheus Thompson encountered few barriers, because they had sizable amounts of capital and strong ties to California when they emigrated.

Along with capital, a merchant needed a means to enforce retail credit contracts. This was necessary for two reasons. First, a merchant’s primary activity was the sale of goods to retail customers through his store. In a society with seasonal agricultural production both the merchant and the customer benefited from the use of credit. The merchant would not extend such credit, however, without an institution that provided customers with incentives to repay the debt. Second, as an agent a merchant was often called upon by other merchants to collect debts in his home market.

This need to enforce contracts provided the critical link between the institution that supported trade among the local residents and the institution that supported trade among the merchants. Barriers to entry into and exit from the local institution facilitated the operation of the merchant institution by acting as barriers to entry and exit to that institution as well. They limited the set of merchants who could potentially be active in intermerchant trade in two ways. First, to gain access to the local institution, a merchant had to be Mexican and Catholic, live in town, and forge close ties to the community through marriage or other means. Once a merchant invested in these ties, they acted as barriers to exit. Even if he could overcome the barriers posed by family ties, his business made

[101] Stearns Collection, Box 12. Lewis Burton to Abel Stearns, Santa Barbara, November 15, 1836.

[102] California Historical Documents, Box 1. Nathan Spear to Abel Stearns, Monterey, May 17, 1837.

[103] Bancroft (1874–1890) IV, p. 706.

leaving problematic. Most of its value lay in his knowledge of the local credit market and long-standing ties to debtors, which were not easily transferred. Second, the number of individuals in local market acted as a limiting factor. A merchant had to establish himself in a market that was sufficiently large and under served that it could support a merchant. Finding such a market appears to have been increasingly difficult over time. Only a few merchants became active after the late 1830s.

The necessity of being a part of the local institution also precluded the adoption of other organizational forms. With the shift from missions to individual producers, wholesalers vertically integrated into retailing. Their resident agents sold goods, monitored customers' credit-worthiness, and enforced debt contracts. After repeated problems with bad debts, however, wholesalers eventually began to trade almost exclusively with retail merchants.[104] Their problems with bad debts suggest that bilateral interaction between a wholesaler and a particular customer was not sufficient to support trade. If a wholesaler punished the customer by refusing to sell him additional goods, the customer could buy from another wholesaler or could have another person buy for him. The only effective means of enforcement of debt contracts involved the local institutions. Wholesalers' agents did not have access to these institutions, however, because they covered more than one town and were in California only temporarily. These factors limited their willingness and ability to invest in community ties. The need for access to local institutions also explains why individual merchants did not control multiple markets.[105] The basic problem was that investments in assimilation in one town did not carry over to others. The merchants' use of one another to collect debts is a reflection of this fact.

At this point, it is useful to step back and compare this study with a study by Greif (1989, 1993). He examined the institution that supported exchange among the Maghribi traders, who were active in the western Mediterranean during the 11th century. Despite the disparate settings, the private-order institutions that supported intermerchant trade in the 11th century Mediterranean and 19th century California were very similar.[106] For the Maghribi traders, like for the California merchants, there were gains to hiring merchants in other ports as agents. The merchants overcame the risk of opportunism by tying future employment as an agent to past behavior with any member of the group. This threat of multilateral punishment was made credible through an extensive information network that

[104] Ogden (1929), p. 302. The observation by Hague and Langum that resident agents could not develop the same feeling for a customer's creditworthiness as a local merchant reflects their differential ability to monitor. Hague and Langum (1990), p. 59. On the role of intermediaries more generally, see Diamond (1984).

[105] Larkin's establishment of two branch stores in 1842 seems to be the exception that proves the rule. It would appear that the experiment was not profitable, because he closed them at the end of the season and did not reopen them in subsequent years.

[106] There were some slight differences in the punishment strategies used by the California merchants and the Maghribi traders. See Clay (1997) for a description of these differences.

allowed merchants to monitor agents, norms that defined appropriate behavior as an agent, and the punishment of agents accused of cheating.

There were differences between the Maghribi traders and the California merchants at both levels of trade, however. The Maghribi traders do not appear to have engaged in arbitration. We can only speculate on the reasons why. Doing so may have been more costly because of the distances involved, or group norms may simply not have allowed for arbitration. The Maghribi traders' relationships with local customers differed as well. Although the traders were based in different ports around the Mediterranean, they appear in all cases to have been able to draw on the local legal system to enforce contracts with customers. Thus, their relationships with their customers did not impose the same limitations that the California merchants' relationships did. The Maghribi traders may be somewhat unusual in this respect, however, because private-order institutions tend to arise in regions—often frontier regions—where contract enforcement is weak at both levels of trade.

CONCLUSION

Mexican California enjoyed relative prosperity in the 1830s and 1840s, as a result of its exports of hide and tallow into world markets. Underlying this prosperity was a complex system of trade based on credit. At the heart of it stood the resident merchants, who acted as intermediaries between the firms that sent goods to the coast and residents and, if they were large enough, engaged in intermerchant trade. Merchants used credit in their transactions with retail customers and one another because doing so was less costly than barter. By extending credit, however, a merchant ran the risk that a retail customer or another merchant would act opportunistically. This risk is mitigated in modern economies by the enforcement powers of the legal system. The use of credit in California is striking, however, because the legal system did not enforce contracts.

Two private-order institutions enabled the participants in trade to overcome the threat of opportunism. The threat of opportunism, a common problem in trade, has historically been resolved though either bilateral or multilateral institutions. Pairs of individuals interact repeatedly in bilateral institutions, and a group of individuals interact repeatedly in multilateral institutions. Both types of institutions provide individuals with incentives for honesty by tying future interaction, which is valuable, to adherence to the prevailing norms. Evidence from the merchants' letters and other primary materials indicates that the two private-order institutions were both multilateral. One enabled merchants to extend credit to their retail customers and the other enabled the merchants to extend credit to one another.

The relationship between these two institutions is critical for understanding the evolution of trade in California. Because very little is known about the effects that institutions have on one another, one of the contributions of this paper is the investigation of this issue. Following the rise of individual producers, trade could have been organized in one of three ways. Firms sending goods to the coast could have vertically integrated into retailing; merchants could have emerged and controlled several towns through branch stores; or merchants could have emerged and confined their retail activities to a single town. The institution that supported trade among the residents in towns imposed restrictions that led to the emergence of resident merchants in each town. Barriers to entry into and exit from the local institution also facilitated the operation and persistence of the merchant institution. The relationship between the two institutions thus provides insight into the conditions under which certain types of institutions are likely to emerge.

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