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Enforcement of nineteenth century banking contracts using a marriage rule

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ABSTRACT

The enforcement of financial and banking contracts is commonly thought to lie within the domain of government law provision. This paper analyzes a case of self-enforcing financial contracts within a banking system in nineteenth century South India. The Chettiars, a merchant-banking caste, relied on religious homogeneity as well as an endogamous marriage rule, whereby members only married others from within the community, to enforce banking contracts within their system. Widely acknowledged to have been an important source of credit locally and throughout South East Asia, this paper describes and analyzes the enforcement mechanisms at work, in the absence of government involvement. Apart from presenting a new case of self-enforced financial contracts, this paper also represents a novel approach to interpreting the social institution of caste, as seen through the rational choice framework.

1. Introduction

The enforcement of banking and financial contracts is widely thought to lie within the domain of government law provision. The general argument underlying this view is that people are unable to overcome prisoners' dilemmas in the absence of an outside party to enforce contracts. This reduces the amount they repeatedly trade with one another, and thus not much contractual commerce could survive or flourish. Are there, however, circumstances when it may become possible for groups of people to enforce banking and financial contracts without third-party government enforcement? Historical experience provides some examples of such self-enforcing arrangements that call into question the scope of government enforcement of contracts.

This paper analyzes a new case of self-enforcing contracts within a network of bankers. The nineteenth century banking system of the Chettiars, an Indian banking caste, spread through many countries in South-East Asia and provided essential credit services to several new industries in those countries. Members of the caste formed separate banks that were closely connected in business to one another as important sources of each other's deposit liabilities and also via the discounting and re-discounting of one another's bills of exchange. This in turn created a need for the enforcement of business contracts between bankers, the mechanisms of which are discussed in this paper.

Conventional economic analyses of the caste system in India implicitly view it as a social institution that inhibits economic growth and progress. Does this view hold up in light of a rational choice model with a profit-seeking agent at its core? The case of the Chettiars suggests that it does not. In their case, it becomes clear that their caste ties and boundaries *created* the environment necessary for business to function. Thus, in their case, caste played a vital economic role, in the absence of government enforcement of their contracts. Existing economic analyses have been unable to uncover this function of caste because of their aggregative point of view. Thus this paper can also be seen as a step forward in applying the framework of rational choice to the complex social institution of caste while bringing it into contact with the wider literature applying rational choice to institutions.

In the absence of a third-party enforcer, it is various *other* mechanisms that must come into play to ultimately enforce contracts among people. Singling out the exact mechanisms at work allows one to postulate the possibility of such arrangements existing even outside of the specific case in hand. For the Chettiars, it was religious homogeneity within the caste and an endogamous marriage rule that allowed marriage only among caste members while restricting marriage to outsiders that enforced contracts. Apart from calling into question the scope of government

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enforcement of financial contracts, it also illustrates the possibility of similar arrangements existing within other castes in India, all of whom practice endogamy and are also usually religiously homogenous.

For the Chettiars, common religious practices allowed them to enforce financial contracts through the use of institutions such as temples and adjudication panels comprised of respected business elders. On the other hand, caste adjudicators used the marriage rule by threatening to restrict marriage between a guilty recalcitrant offender and other members of the caste. This in turn created a self-enforcing mechanism whereby judgments made by the adjudication panels were very likely to be accepted by disputing parties. This was because a member risked losing not only his social reputation, since no other member of the caste would be allowed to marry him, but, as a secondary effect, his business reputation as well. This enforcement mechanism was used successfully by the Chettiars in their banking system for several decades up until the early twentieth century when increasing government intervention and rising nationalist movements led to a complete restructuring and decline of their business.

The literature on self-enforcement encompasses a diverse set of economic arrangements across time and space such as the 11th century Maghribi traders (Greif, 1993) to the origins of the Law Merchant (Benson, 1990) to cyber space security (Benson, 2005). These cases, in turn, exhibit varying mechanisms that ultimately enforce the economic arrangements among individuals (Powell & Stringham, 2009). Although such case studies seriously challenge conventional ideas about governance and governmental involvement in the market, case studies involving self-enforcement in financial and banking markets are rare (Stringham, 2002, 2003). The first subsection places the Chettiar banking case and the enforcement mechanisms therein within the relevant self-enforcement literature. In particular, their use of marriage ties is shown to be unique within the existing literature while religious homogeneity is shown to be a common mechanism used in the several other instances as well. The second subsection takes up the issue of caste as a social institution and its current theoretical treatment in the economics literature. Here, the analysis of the paper is shown to break from existing economic analyses of caste.

1.1. Enforcing contracts

Cases documenting the self-enforcement of financial and banking contracts are rare. Stringham (2002, 2003) provide evidence of self-enforcing financial contracts in the early history of the London and Amsterdam stock exchanges. Socially diverse traders in the world's first stock market in Amsterdam used reputation as a mechanism to enforce sophisticated financial contracts like options, forward contracts and short sales, in the absence of formal government enforcement (Stringham, 2003). A similar mechanism was at work in the London Stock Exchange through the eighteenth century whereby brokers formed a private club that penalized defaulters and shared information with member brokers. These cases show that even sophisticated financial contracts can come into being and flourish in an environment with little to no government enforcement.

Though not involved in a stock exchange, the Chettiars were bankers; each member bank accepted deposits and made loans. Other than that, they also issued bills of exchange that facilitated the movement of money across South-East Asia. Their banking system represented a complex network of several large and small size member banks dependent on one another for deposits as well as discounting one another's bills. Unlike the enforcement mechanisms at work in the case of the socially diverse participants of the London and Amsterdam stock exchanges, the Chettiars leveraged their social and religious homogeneity to adjudicate as well as enforce business contracts.

The use of religious or ethnic homogeneity to enforce contracts is also found in the work of Landa (1981, 1994), Bernstein (1992) and Greif (1989, 1993). Landa (1981, 1994) documents how Chinese middlemen groups used their ethnic homogeneity and resulting trust as a substitute for contract law in their dealings between socially diverse buyers and sellers. Bernstein (1992) presents the case of orthodox Jews comprising most of the New York Diamond Dealers Club who use religious homogeneity to settle disputes and enforce contracts pertaining to the diamond business. Greif (1989, 1993) documents the 11th century Maghribi traders that formed a coalition and used a multilateral reputation mechanism to facilitate trade across a wide trading network in the Mediterranean. The common mechanism of enforcement in these cases is the leveraging of trust created out of repeated interactions within a socially homogenous group. The Chettiars, too, were able to reap the benefits of such repeated interactions and social homogeneity that manifested itself through institutions such as trust, shared customs and beliefs.

On the other hand, the Chettiars also reaped the benefits of allowing marriage only within caste-members. This marriage rule had evolved and existed many decades and possibly centuries prior to their banking system. Thus, marriage was used not only to further business bonds and networks between families; it also formed the core of how caste adjudicators enforced their decisions, essentially through restricting marriage with the non-abiding disputant and his family. An instance where the threat of restricting marriage enforces decisions made by judges has so far not been documented in this literature.

1.2. Recasting caste

Caste as a social institution has been an important area of study for sociologists and anthropologists alike (Berreman, 1960; Dumont, 1980; Thurston, 1909; Weber, 1958). Few economists, however, have scrutinized caste from an explicitly economic perspective. Akerlof (1976, 1980) and Scoville (1996, 2003) focus on caste as effectively creating barriers to competition in the labor market while trying to explain the persistence of caste in India. Implicit in their analysis is the view of caste as harmful to growth and development.

Akerlof (1976, 1980) is one of the few economists who has attempted to model the workings of a labor market in a caste economy, with specific reference to India. He shows how the sanctions imposed by a caste system would be effective in thwarting the normal functioning of a competitive labor market. Labor market participants in search of the highest remuneration would find the costs of defecting from their caste too high, or in his words, defectors do "not gain the profits of the successful arbitrageur but instead suffer the stigma of the outcaste" (Akerlof, 1976, p. 610).

Scoville (1996, 2003) provides a more realistic and dynamic model of the labor market in a caste economy, again in reference to the Indian caste system. He does this by incorporating certain realistic aspects of caste that Akerlof (1976) ignores, namely that caste occupations are hereditary, compulsory and endogamous. This leads him to conclude that it is these very features that lead to insurmountable transaction costs and have thus resulted in the persistence of the caste system in India. Put another way, these are the very reasons that the Coase theorem fails or why people do not cross caste boundaries to indulge in profit generating trades.

This paper proceeds by looking at the working of one particular caste that also embodies the characteristics Scoville (1996) identifies, but through the lens of rational choice. By interpreting caste members as rational self-interested agents engaged in profit-seeking behavior within the banking industry, those very same characteristics such as endogamy and hereditary membership appear as rational tools or institutions created and utilized by them to help achieve their particular economic ends. Most significant among them would be contract enforcement or creating an atmosphere conducive to long-term trade and peaceful contractual relations. In this sense, seen through the rational choice lens, the Chettiar caste appears as an institution that promoted business and hence economic growth and development.

First, this points to the possibility of similar arrangements present within *other* castes that share these common characteristics that could be brought to light by applying the rational choice framework. Further, beyond the scope of this paper, it also suggests that the caste *system*, or the network of various castes co-existing with one another seemingly interlocked into place, can be explained as an ex-post result of several individual castes setting up boundaries to provide for key collective goods within themselves. Existing economic analyses of caste focus on the entire *system* or network of interlocking castes and try to explain its existence and persistence as a whole. Hence they fail to capture the more intricate picture that results from the application of a method that utilizes the rational individual as its main tool.

A similar though logically distinct economic analysis of caste can be found in Freitas (2010). Freitas (2010) deals again with the caste *system*, which is the resulting pattern of many different castes interlinked with one another in the economy. She looks at the mechanisms that work to enforce contracts *across* different castes. This paper has a much narrower and pinpointed focus by looking at the mechanisms of contract enforcement *within* one particular banking caste, while viewing the question of persistence of the caste *system* as outside its scope.

Certain historians do perceive this economic function of caste in India. Economic historian Roy (2008) likens the function of caste to that of a community or guild that provided club goods for its members. He postulates that formal guilds like those in Europe did not need to exist since caste played a similar role in the Indian context. Historian Markovits (1999) writes about the economic function that caste played as well, while discussing Indian merchant trading networks outside India. A trading network was "generally congruent with either a specific 'caste' or 'subcaste"' (Markovits, 1999, p. 897), and thus he postulates that the study of Indian business ventures abroad must focus away from aggregative entities such as 'India' or 'Indians' but focus instead on a bottom-up picture of the various networks or castes (Markovits, 1999).

In the next section, we begin by looking at the historical setting of the Chettiars and their banking business. This will provide a basis for analyzing their enforcement and reputation mechanisms.

2. Nature of the Chettiar banking system

The Chettiars are commonly referred to as 'indigenous bankers' (Jain, 1929; Krishnan, 1959; MPBEC, 1930; Rudner, 1994; Thomas, 1941), a term meant to signify an intermediate position between a moneylender and a formal banker.[1] Unlike moneylenders who mainly lend out of their own savings or capital, the Chettiars were true financial intermediaries, taking deposits as well as advancing loans. However, unlike banks in the 'formal' sector, the Chettiars and others like them had evolved and functioned in an 'informal' environment, without any government charter or government regulation. Hence the term 'indigenous banker' was used to describe them, signifying a spontaneous and self-sustaining quality. Jain (1929) in his study on indigenous banking in India differentiates between moneylenders on the one hand and true bankers such as the Chettiars, Marwaris and Jains among others. He writes of indigenous bankers as "not required to register themselves as such under any law of the realm" (Jain, 1929:1), and traces their evolution back several centuries when they were important sources of credit and money-changers in kings' courts.

The Chettiars belong to a rural part of the South Indian state of Tamil Nadu and were also the most prominent indigenous bankers in Southern India through the nineteenth century (Jain, 1929; Krishnan, 1959). Starting out as salt traders in the seventeenth century and then diversifying first into money lending, they established themselves as a full-fledged banking system by the nineteenth century (Mahadevan, 1978a; Rudner, 1994). The caste numbered an estimated 10,000 people in 1896 and had grown to 40,000 by 1920 (Rudner, 1994).

As a caste, the Chettiars practiced endogamy or marriage only to one's fellow caste members. Within the caste, they were however divided into nine exogamous clans or 'gotras' whereby marriage to a fellow Chettiar from within one's clan was prohibited (Chandrasekhar, 1980; Rudner, 1994). Membership into the caste was likewise purely hereditary; one had to be born to a Chettiar to become one. These customs can be traced back a few centuries into the earliest recorded history of the Chettiars (Rudner, 1994) and hence were well established *before* their rise as a banking system. This is important because it will be shown that these common social customs and rituals formed the basis on which the Chettiars were able to build effective institutions that created the necessary environment for their business to grow and prosper.

A related point is that though there were high barriers to entry into the caste, there was, at all times, a freedom to exit. Exiting caste members would, however, have to fend for themselves without access to any collectivized caste organizations or built-up social and financial capital. In this sense, caste membership was akin to a club membership providing local public goods; only that one had to born into the club and could not even gain membership through marriage.[2]

We become concerned with their functioning as bankers around the mid-nineteenth century when the British conquest and opening up of South-East Asian countries attracted many Chettiars to leave home and extend credit to various new industrial concerns within these countries (Mahadevan, 1978a, 1978b; Menon, 1985; Weerasooria, 1973). This banking system functioned successfully for at least seventy years until about 1930, a year which is widely cited as the definitive breaking point for the decline of their business (Mahadevan, 1978a, 1978b; Menon, 1985; Rudner, 1994; Weerasooria, 1973). This decline was the result of several complex external and socio-political factors and not a spontaneous breakdown of the internal workings of the caste. The various events constituting the decline are dealt with in more detail in a later section.

This was also around the same time that the Indian state began regulating the economy more closely after it set up several national committees to study and evaluate the nature of different business practices in 1929 (Baker, 1984). The national banking enquiry committee relied on several smaller 'provincial' committees reporting about the nature of banking from their respective provinces. The report of the Madras Provincial Banking Enquiry Committee (1930) (MPBEC, 1930 henceforth) reports:

[1] Technically these are the Nattukottai Chettiars or the Nagarathars. Rudner (1994) refers to them as the Nakarattars. Here I use Chettiars for brevity.

[2] Economic historians find that commerce and trade in the cities and urban centers at the time was not necessarily organized along caste boundaries, that there existed several multi-caste organizations, implying that exiting caste members did have non-caste options open to them (Bayly, 1983; Roy, 2010).

> These proposals were in general agreed to and a press communiqué was issued on 12th June 1929 stating that the objects of the enquiry were the investigation of existing conditions of banking and the consideration of what steps, if any, are feasible and desirable under the following headings:
> (a) The regulation of banking with a view to protecting the interests of the public.
> (b) The development of banking in the sense of the expansion of both indigenous and joint-stock banking with reference to the needs of agriculture, commerce and industry.
> ...*The indigenous bankers in this Presidency must include the* banking communities of Marwaris, Multanis, *Nattukottai Chettiyars* and Kallidaikuruchi Brahmans. They grant loans primarily on personal credit generally at higher rates of interest than large joint-stock banks and at the same time take larger risks relying more on personal knowledge of their clients and their clients' business than on pledged securities for trade loans. *They deal in hundis*[3] *to a very large extent and finance a great deal of the internal movement of goods* (MPBEC, 1930, p. 2, emphasis mine).

This is not to say that the state was completely absent or had no presence in the area before 1930. The land and people of Tamil Nadu were intricately connected to the British government and several kingdoms before it for the purposes of revenue generation or taxation (Baker, 1984). The government, however, far from being involved in intra-caste conflict resolution, did not take an active interest in regulating business practices until the 1930s (Baker, 1984; Rudner, 1994).

As to the exact nature of the Chettiar banking system, each extended family or household formed a separate banking entity, in effect a separate bank, accepting deposits, making loans and discounting bills of exchange. Rudner (1994, p. 90) describes the banking system:

> Nakarattars built their commercial empire out of a complex network of interdependent family business firms. Each firm was involved in commodities trading, money lending, domestic and overseas banking operations, or industrial investment. Beyond this specialization—making possible every other commercial venture in which it engaged—each family firm operated as a commercial bank: taking money on deposit and drafting bills and other financial instruments for use in the transfer of lendable capital to branch offices and to other banks. As a result, every Nakarattar firm was tied together with all of the others to form a unified banking system.

Their estimated working capital summed up over all business stations in 1930 was 1200 million rupees (Krishnan, 1959; Rudner, 1994) or 5.6 billion in 2008 dollars. Another source values the Chettiar assets at 795 million rupees or 3.71 billion in 2008 dollars and yet another one at somewhere in between 1150 and 1300 million rupees[4] (MPBEC, 1930; Rudner, 1994). There is considerable variation between these various estimates; however, even the most conservative estimate is sizable. There were 243 firms or bankers doing business locally in South India in 1930 (Rudner, 1994, p. 72), while 1650 firms were operating in Burma in 1929 (Mahadevan, 1978b) and 700 firms operating in Ceylon in 1916 (Rudner, 1994, p. 76).[5]

While their business mainly involved providing credit to non-caste members, the enforcement of contracts within the caste and its enforcement mechanisms formed the core, which held the banking system together. There were two main reasons for needing enforcement of business contracts within the community itself. As a banking system the Chettiars were an important source of credit for each other. Indeed, approximately 75% of deposit capital for any given Chettiar banker came from fellow Chettiars (bankers as well as non-banking members of the caste including women's savings and dowries) (Rudner, 1994). The vast network was geographically dispersed over a large area and facilitated the easy and efficient transfer of money. This in turn created a strong role for 'trust' and an additional need for enforcement mechanisms since the discounting and re-discounting of bills of exchange necessarily involves paying out money on behalf of another member bank located in a different city or town.

References to the Chettiars and their effective business organization can be found in all major historical works dealing with the economic history of India or South-East Asia (Baker, 1984; Bayly, 1999; Elson, 1992; Kumar, 1983; Ray, 2002; Tomlinson, 1993). Kumar (1983, p. 373) writes

> *The great trading castes – The Chettiars of Tamil Nadu*, the Komatis of the Telugu region, the Balijas of Kanara, the Muslim Labbais – and many others, had been well organised for centuries, and *did not lose their social cohesion during the Company's rule.* (Emphasis mine)

In a similar vein, Rudner (1994, p. 88) writes

> Nakarattar success was clearly linked to their ability to master the changing institutional framework of British colonial government and to act as middlemen between the colonial government and colonial society at large. *The dramatic economic expansion of the caste as a whole can only be understood as a consequence of the effectiveness of the system of Nakarattar social organization* for carrying out activities of financial intermediation, capital accumulation, and investment.

This still leaves the question of what exact mechanisms were at work to enforce and maintain their business empire unanswered. These issues are addressed in the next section.

2.1. Temples as social and commercial centers

Temples and religion formed the first of three institutions central to Chettiar success. The role of the Hindu religion was paramount in the lives of the Chettiars and manifested itself through temples. These temples served not only as places of worship but also as social and commercial centers of gravity for the whole community. Each of the nine exogamous clans mentioned above had its own affiliated clan temple that controlled and sanctified the main marriage rites taking place between members of the community. Apart from clan temples, any village that had a sizeable Chettiar population in their rural homeland in Tamil Nadu also had a Chettiar village temple, wherein membership was based on the residential location. Thus, nearly all Chettiars were simultaneously members in at least two Chettiar controlled temples, one based on their clan membership and the other based on the village of their residence. Apart from this extensive network of temples, each business location abroad also housed a temple along with a common house that served to house Chettiars on business.

Each of these Chettiar temples was financed and controlled by members within the community. Those who made large donations to temples would ultimately find themselves nominated as guardians or trustees of the temple's interests. Though clan

[3] A 'hundi' is a bill of exchange.

[4] Conversions have been made using the following calculation. In 1930, 1 USD = 2.77 rupees, thus 795 million rupees was the rough equivalent of 287 million dollars. In 2008 dollars, that would be $287 \times 12.95 = 3.71$ billion dollars. Source for exchange rates: Source for exchange rates: www.measuringworth.com.

[5] For a more detailed examination of the Chettiar banking system, see Nair (2011).

temples had ultimate control regarding sanctification of marriages, village temples too were vested with certain powers pertaining to marriage rituals. Marriage was but one of many social ceremonies that were intimately connected to religious ritual and thus to the temples.

Apart from social ritual, however, temples and religion were intimately connected with the Chettiar *business* practices as well. Every new business venture was only commenced upon on an 'auspicious' day according to the Hindu calendar, only after the appropriate ceremony had been carried out at the temple. Rudner's (1994, p. 98) reproduction of one of their account books reveals an entry at the top of the page (though a nominal amount) made in favor of the gods under the heading "Auspicious credits in the name of various deities". Evers and Pavadarayan (2006, p. 856) document the role of religious belief in inter-Chettiar dealings:

> When credit is extended to other Chettiar money-lenders, the god Murugan is used as their divine witness. He is seen as the presiding chairman of every business and social meeting. He is also considered the supreme witness of every oral contract and economic transaction made among the Chettiars. Dishonesty and default of payment invoke religious sanctions through divine intervention which are expressed in punishment through calamities and bad luck.

Whether or not Chettiars waited for divine retribution to resolve business conflict, they also had recourse to a more earthly measure of conflict resolution through lodging a complaint at the temple, which then put together a panel of elders to adjudicate the dispute.

2.2. Caste 'Panchayats' or panels for dispute resolution

Caste 'panchayats' were panels comprising one or more respected elderly persons within the community, called upon to adjudicate disputes arising among caste members over both personal and commercial matters. All such panels were housed within temples and were usually comprised of the temple's trustees. These panels could find themselves asked to resolve disputes over varying issues such as brothers fighting over family property or the payment of interest between two bankers or failure to honor a contract. The important point is that the temple's panel handled both commercial and social disputes.

The judgments themselves were completely based on the panel's discretionary powers and customary precedents and not on written rules or constitutional arrangements. The method of choosing at which temple to lodge your complaint was also based on the context of the dispute and what the two disputants had in common. If two disputants hailed from the same clan, they would approach their common clan temple to settle the dispute. Disputants from different clans could approach village temples or temples in the location of business dealings; whichever one was common and acceptable to both. Again, there were no set rules or written codes about exactly which temples' jurisdictions held command over particular situations. Yet, this system worked effectively as Rudner here describes it:

> Notice that techniques of Nakarattar conflict resolution were by no means centralized under a single Nakarattar chief or an overarching Nakarattar caste *panchayat*. On the contrary, they were highly segmentary and context-sensitive, responding to various combinations of local interests generated in disputes between Nakarattars from different villages, different clans, and different business stations. This segmentary quality in no way prevented the caste from responding as a whole to the decisions reached by a *panchayat* meeting. Rudner (1994, p. 128)

In case of recalcitrant defendants found to be guilty, temple councils used their powers over marriage rites to restrict marriage between members of the caste and the guilty party. Two separate authors writing on the dispute resolution methods used by the Chettiars describe this procedure below.

> Matters such as the arrangement of marriage contracts, monetary disputes, family discussions, and the like, are referred to the temple council for settlement. Final decisions are never recorded in writing, but delivered by word of mouth. Those who fail to abide by the decision of the council do not receive a garland from the temple for their marriage, and without this garland a marriage cannot take place. (Thurston, 1909, pp. 263–264)
>
> There is also a strong communal system of arbitration obtaining among the Chettiars. Attached to every temple (kovil) is a temple council (Panchayat), which is composed of the elders among them and adjudicates on all matters relating to marriage, monetary transactions, family disputes, etc. The manager of the Kovil arranges for meetings and records evidence; and the award is given orally and not usually in writing. If the parties do not abide by the decision, they may be ostracized, and their marriages may not be celebrated under the auspices of the Kovil. (Thomas, 1941, p. 846)

This leads us into the next subsection describing the role of the elite or parent bankers within the community and ultimately within the conflict resolution procedure.

2.3. 'Adathi' parent bankers as social elites

The wealthier caste members or natural elite among the Chettiars also served as parent bankers in the banking system. They typically owned a large number of banking branches and this in turn allowed them to act as clearinghouses for the whole banking system. Rudner (1994) estimates that these 'adathis' or parent bankers comprised between 5 and 10% of the caste population.

Smaller Chettiar firms would maintain accounts with these parent bankers, which allowed the transfer of money easily and quickly over long distances by simply drawing bills of exchange on the 'adathi' firms. Since the parent bankers had a large network of banking branches in India and abroad, outstanding debits and credits could be cancelled against each other, making them effective clearinghouses. This function made bills of exchange drawn on parent banks more valuable than those drawn on non-parent banks. Rudner (1994) writes about how such bills would frequently be kept unredeemed, as insurance for a time when liquidity was required on short notice. 'Adathis' also had a larger say in the communal setting of the inter-lending interest rates that took place every month in a temple or common house. Other than that, the 'adathis' were famous for their philanthropy and endowment of temple funds.

In some ways, these parent bankers were performing the functions of central banks. Providing clearinghouse functions, setting interest rates and providing secure credit instruments are some of the functions commonly attributed to central banks. The parent bankers' status, however, was granted organically by other caste members, and not through any government coercion or legislation. A greater place in society or greater respect was given to them on the basis of their business acumen and philanthropy. As philanthropists, they were also the largest donors to temple trusts, an activity that would usually win them the trusteeship of the temples. They were frequently called to sit upon the panels or councils formed to adjudicate disputes among caste members. This ensured that disputants quarrelling over a business contract were likely to abide by the decisions of the panels since the judges themselves were prominent businessmen who were also greatly respected by other members of the community.

'Adathi' status, in turn, was not a hereditary honor. It was completely based on business skills and respect. Any caste member could potentially rise in social status to become an 'adathi'. Rudner (1994, p. 232) writes of elite status hood, "from the inside, it was recognized as an asset or an investment; something to be achieved, not something ascribed; and something equally achievable by any Nakarattar businessman." Thus, there was an inbuilt procedure whereby those men who succeeded most at business and were most philanthropic rose to the top of Chettiar society and held positions of control over temple trusts. This brought power to adjudicate over commercial and social disputes among their fellow caste members. Since this higher status was not a hereditary honor, it did not create an impression of a de facto ruling class within the community. This feature also worked to further strengthen the legitimacy of decisions made by holders of those positions in the eyes of the other caste members.

2.4. Mechanisms of self-enforcement

It is possible to identify three separate mechanisms working to enforce business contracts among the Chettiars through the institutions outlined above. The first one is leveraging of reputation in the case of parent bankers or 'adathis' who were also trustees of temples and hence involved in the justice procedure. Men of proven business standing achieved a place in society that gave them the power of adjudicating disputes among other businessmen within the same society. Disputing caste members actually benefited from having men of good business reputation judge the conflict. Not abiding by the decisions of people highly reputed by other caste members brought with it high expected social costs such as being seen as a pariah or as harmful to business spirit and sensibilities. This created a self-enforcing mechanism whereby conflicting members were more often than not likely to accept the decisions made by the panels.

A second distinct mechanism that worked to enforce contracts was the use of restricting marriage between recalcitrant members and others within the caste. The temples did this by using their power over marriage ceremonies and refusing to send wedding garlands, without which weddings could not be solemnized. Such an instance of using marriage to enforce contracts is hitherto undocumented within this literature. It represents the use of a very personal institution in order to make informal business contracts enforceable. The practice of endogamy or marriage only to one's caste members helped to make this method of restricting marriage effective. Without this explicit rule, restricting marriage to one's caste members could not be effective in enforcing contracts. This is because if marriage to outside non-caste members were an accepted norm, restricting marriage between one's own caste members would not be a grave prospect for the disputants.

Not abiding by the decisions of the temple councils meant losing the ability to marry within the group, but it was also unacceptable to marry outside the group and at the same time maintain one's social standing within it. Marriage to a non-caste member was the equivalent of exiting the group and meant relinquishing all social status hitherto accorded by the group since an endogamous marriage rule was the norm. This brought with it extremely high expected costs such as having to give up family connections and being unable to partake of any of the group provided goods and capital. This, again, created a self-enforcing mechanism whereby decisions made by the temple councils were highly likely to be accepted.

The third self-enforcing mechanism at work is closely related to the second one and concerns the benefits of repeated interactions. Social agents who interact with one another repeatedly are able to reap the gains of built-up knowledge and information about each other. Such gains usually manifest themselves in 'trust' relationships, where agents face higher expected costs from defaulting than in a one-shot game or interaction. Such a mechanism was at work in the Chettiar case as well. Since they were a close-knit community with interactions going back several decades, there was a built up "trust" mechanism at work. Even before temple councils had restricted marriage between caste members who refused to accept their decisions, the guilty parties would find themselves veritably outcast by other members of the caste due to a loss of this trustworthiness. This would result in a loss of social reputation and more significantly a loss of one's business reputation, which potentially brought high monetary losses and was very difficult to recover. Rudner (1994:128) explains this tertiary mechanism at work:

> *Suppose that one Nakarattar refused to accept a panchayat decision* about payment of interest owed on a hundi transaction. In some cases, a panchayat might decide to take action, such as prohibiting Nakarattar families from intermarrying with the offender's family until he complied with their decision. Whether or not such extreme measures were taken, *news of his untrustworthiness would spread rapidly* throughout the network of localized Nakarattar communities defined by temples and vitutis[6] serving Nakarattar villages, clans, and business stations. *No Nakarattar would do business with him. A major part of his working capital and an important and reliable source of liquid credit would be denied him. He would soon be out of business.* (Emphasis mine)

This once again created a self-enforcing mechanism that made decisions of the temple councils highly likely to be accepted by everyone in the community.

3. Decline of the banking system

The decline of the Chettiar banking system can be traced to external socio-political as well as economic factors, and not to a spontaneous breakdown of the internal workings of the caste. The early twentieth century saw the rise of nationalism in India, the forerunner of the later freedom movement against the British. With this rise, several 'indigenous' or informal business elites became increasingly involved in political movements and faced the choice of entering the more legitimate formal business sphere or remaining informal (Roy, 2010). This was true of the Chettiars as well; several elite members withdrew from the informal banking sphere to set up joint-stock banks in the formal sector. Some such examples would be the Bank of Chettinad, set up in 1929, the Indian Overseas Bank set up in 1937, and the Bank of Madura, founded in 1943 (Ito, 1966; Lamb, 1955). This led to increased polarization in the community since smaller non-elite bankers could not afford to set up joint stock banks (Mahadevan, 1978b; Rudner, 1994). The polarization was so pronounced that the communal meetings of the Chettiars, which had earlier played a crucial role in business dealings, were used increasingly by elite members as pressure groups for lobbying political authorities (Mahadevan, 1978b, p. 348).

This phenomenon is similar to that described in Leeson (2005) which traces the breakdown of endogenous signaling mechanisms and trade among socially heterogeneous Africans to the rise of colonialism and its institutions. He postulates that the new colonial institutions interfered with the spontaneous signaling mechanisms that had evolved within Africa and thus inhibited

[6] A 'vituti' is a common house.

trade and progress that existed before their arrival. The Chettiars too experienced a breakdown in their internal organization and enforcement mechanisms caused by a radically changed environment, attributable to rising nationalist government and an exiting colonial power.

However, the decline can be traced to explicitly economic causes as well. The Chettiar business in its heyday was not widespread in India. It was most extensive in Burma, followed by Malaya, Sri Lanka and China. Within these countries, it was the Great Depression of 1930 and the sudden fall in prices that dealt the first blow to Chettiar business. Mainly involved in financing agriculture as they were, a sharp fall in agricultural prices led to many debtors defaulting on their loans, which either led smaller Chettiar banks to go bankrupt or to acquire the land pledged as collateral for the loan.

In Burma, for example, total Chettiar land holdings went from 570,000 acres in 1929 representing 6% of total cultivated area in the major rice growing districts to 2,393,000 acres by 1936 or 25% of total cultivated rice growing area (Mahadevan, 1978b). Again, rising nationalist movements and hostile business environments within Burma led to massive Chettiar withdrawals back to India. Adas (1974, p. 194) documents the Chettiars being ostracized and targeted as scapegoats by the press for Burmese economic woes in the years following the slump. Chakravarti (1971, p. 64) documents Burmese nationalists lobbying for land nationalization on the grounds that the Chettiars and other Indians had come to resemble colonizers, not unlike the British. In 1941, the Burmese government passed the Land Purchase Bill, effectively nationalizing ownership of land acquired by the Chettiars and resulting in an effective loss of investment worth 57 million pound sterling at the time (Chakravarti, 1971, p. 68).

Similar events unfolded in Malaya, where the Chettiars' economic interests were adversely affected by the Great Depression and its effect on the rubber and tin industries. Again, large amounts of land came under Chettiar ownership and the government passed a bill in 1931 to try and restrict such acquisitions with detrimental effects on Chettiar investment and presence in Malaya (Mahadevan, 1978a). In Ceylon, though the government did not nationalize Chettiar-acquired land, several other legislative actions nevertheless succeeded in pushing them out (Weerasooria, 1973, p. 156).

Back in India to a changing socio-political and business environment, many Chettiars were forced either into poverty or reinvestment of their resources into other industries (Rudner, 1994). Thus, the Chettiar banking system that had flourished through the nineteenth century changed form dramatically and declined definitively post 1930.

4. Conclusion

The Chettiar banking system represents a case of self-enforced order wherein group members used the mechanisms of reputation, restricting marriage and benefit of repeated interactions to enforce financial contracts through the nineteenth century. These mechanisms explain why their communal institutions functioned effectively and thus lie at the core of how their banking business was able to work well. Baker (1984), in his history of their home state of Tamil Nadu, sums up nicely this institutional framework. He writes (Baker, 1984, p. 282):

> As they expanded, they evolved a suitable set of communal institutions. They had a council to fix interest rates, and a tribunal to sort out disputes without recourse to law. They evolved a system of agency which allowed an apprentice (generally a kinsman) to work for three years on the capital of the parent firm. They also developed a system of circulating money among Chettiar firms, both within Southern India and across the Bay of Bengal, through agents known as adathis who worked as clearinghouses for Chettiar bills in each of their major centres of business.

Apart from calling into question the need for government enforcement of banking contracts, this paper also represents a step forward in applying rational choice theory to the social institution of caste. Caste is shown, in this case, to be a rational self-enforcing arrangement among individuals. Further research in a similar vein, applying rational choice theory to the working of other castes, is bound to be fruitful.

Finally, the existence of a caste system or caste society is commonly used as justification for extensive affirmative action programs put in place by governmental agencies, in India and elsewhere. Existing economic analysis justifies such policies by providing an underlying view of caste as detrimental to economic development. However, if it can be shown that an "endogenous" or spontaneous institution such as caste can and did foster trade and prosperity, it supports an altered view of how and why caste as a social institution functions within society. The Chettiars used their caste ties to support a complex banking system and work by economic historians suggests that their case is certainly not an anomaly (Markovits, 1999; Roy, 2010). One implication is that it opens up the possibility of new answers to old questions of the scope and efficacy of government measures to do away with caste. On the other hand, it also points towards a need for more research in the relatively unexplored area of how market mechanisms themselves can play a role in making caste boundaries ineffective or obsolete.

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