

Kinship Networks and Entrepreneurs in China's Transitional Economy¹

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This research draws insights from two theoretical traditions: one is new institutionalism, which emphasizes the role of institutions, both formal and informal, in economic growth; the other is social network analysis, which highlights the role of interpersonal relations in producing and enforcing informal norms. Integrating these two approaches yields the thesis that social networks affect economic growth via enforcing informal institutions. The article focuses on the economic payoff of kinship networks in the context of China's rural industrialization to argue that kin solidarity and kin trust played an important role in protecting the property rights of private entrepreneurs and reducing transaction costs during the early stages of market reform, when formal property rights laws were ineffective and market institutions underdeveloped. Data from 366 villages show that the strength of kinship networks has large positive effects on the count and workforce size of private rural enterprises and insignificant effects on collective enterprises.

INTRODUCTION

Economists have long concurred that institutions matter for economic performance because they reduce uncertainty and lower the costs of transaction and production (e.g., Coase 1960; Williamson 1985; North 1990). For instance, North and Thomas (1973) attribute the rise of the Western world to the creation and evolution of an efficient property rights institution that, supported by a central state, brought the private rates of return close to the social rates of return.

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Institutions can be either formal or informal. A large part of our social and economic life is governed by informal norms (North 1994; Ellickson 1991; Posner 2000; Nee and Ingram 1998). Criticizing Coase's exclusive focus on formal laws of property rights, Ellickson (1991) argues that informal norms in everyday life interactions subsume a large part of the costs of formal policing and enforcement. North (1994) emphasizes that informal rules provide legitimacy to formal rules. Whether a formal institution can achieve hoped-for results depends to a large extent on whether it is supported by informal institutions such as customs, traditions, and codes of behavior. Study of reform economies should pay particular attention to informal institutions because—unlike formal institutions, which are deliberately designed and can be transformed relatively rapidly—informal norms are much more impervious to deliberate designing and take time to change.

While acknowledging the importance of informal norms, economists are less unequivocal about their genesis and enforcement. For sociologists, informal norms emerge spontaneously out of social networks and their enforcement is the by-product of ongoing social relations (Nee and Ingram 1998). It follows logically that social networks matter for economic performance. The diagram in figure 1 illustrates the causal connections.

This line of argument points to a promising crossbreed of new institutionalism and social network analysis. Such crossbreeding calls for re-orienting network analysis from an individualistic perspective that views social relations as individual resources to the group perspective that focuses on the normative control aspect of social networks. At the individual level, the effects of network ties, weak or strong, on status attainment and mental health have been thoroughly examined (Granovetter [1974] 1994; Burt 1992; Coleman 1988; Lin 1988, 2001; Bian 1997). Comparatively, aggregate level analysis of the role of social networks in supporting informal institutions and promoting economic growth (or political democracy) is only beginning to generate momentum. Theorizing of social capital at the group level is pioneered by Coleman (1990, 1994), Woolcock (1998), and Putnam (2000). Empirical evidence is scanty (e.g., La Porta et al. 1997; Knack and Keefer 1997).

Coleman (1990) analyzed two conditions for the genesis of effective social norms. The first (necessary) condition is the existence of "externalities of an action that cannot be overcome by simple transactions that would put control of the action in the hands of those experiencing the externalities" (p. 251). Externalities exist when an action has consequences for actors other than the focal actor who typically calculates only his/her own benefits or costs. Combined action among those who experience the externality is necessary to attain a social optimum. Yet, combined actions are often not feasible because self-interested individuals tend to free ride

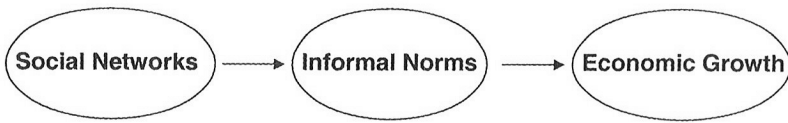


FIG. 1.—Explaining the economic payoffs of social networks

on each other's contribution. Olson (1965) calls this the collective action problem.

This first condition necessitates a prescriptive or proscriptive norm to capture positive externalities or avert negative externalities. However, enforcing an informal norm incurs a second-order free-rider problem because rational individuals tend to free ride on each other's sanctioning effort. Thus, the second (sufficient) condition for the genesis of norms is that norm beneficiaries will be able to overcome the second-order free-rider problem or generate enough second-order sanctions to render norms effective (Coleman 1990, p. 273). Within the framework of new classical economics, the genesis of a norm is inexplicable because the second-order free-rider problem is unsolvable (Axelrod 1984, 1997; Nee and Ingram 1998).² Methodological holism in sociology simply avoids the question by starting with the *sui generis* nature of the social fact.

Coleman's methodological individualism derives social order from individual dynamics but differs from economics in its emphasis of social relationships. Coleman underscored two aspects of social relationships as important for generating effective sanctions. One is the communication that enables coordination among the norm beneficiaries. The second is obligations and expectations that subsume the cost of sanctioning (Coleman 1990, pp. 270–73). A third aspect, which is increasingly emphasized, is the emotional dimension. Lawler (2001; Lawler, Thye, and Yoon 2000) argues that emotions are the unintended but inevitable side effects of social exchanges. Individuals include irrational emotions in their rational calculation. The innate need for social approval and social companionship renders the withdrawing of social networks an effective sanctioning mechanism (Homans 1961; Nee and Ingram 1998).

This article will explore the economic payoffs of one particular type of

² There are many proposals to solve the second-order free-rider problem. For example, Axelrod (1997, pp. 52–57) postulates a metanorm of second-order sanctioning, i.e., “punishing those who do not punish a defection.” There are other proposals to solve the second-order free-rider problem. Posner (2000) proposes a signaling theory to explain conformity to effective norms: people adhere to norms to signal that they are the cooperative type in order to capture future gains in cooperation. Gould (1993) argued that the norm of fairness helps to produce collective goods: when one member contributes, other members may match this out of fairness considerations.

social relations—kinship relations. Lineage networks are a distinctive and prominent feature of Chinese village life. I will examine their role in defining the informal institutional environment and shaping rural industrial development in Chinese villages. The rapid growth and success of rural industry during China's economic reform have attracted much academic attention because of its many paradoxes and puzzles. One interesting paradox is that private entrepreneurs mushroomed in the early stage of reform, when the formal property rights institution was in incubation and its enforcement ineffective. Were there informal norms in Chinese villages that helped reduce uncertainty and encourage entrepreneurial initiatives? Did lineage networks have any role to play in this process? I will argue that kinship networks function to protect private property rights and facilitate the growth of private entrepreneurship in China before formal property rights laws become effective. Using a village-level data set, I will demonstrate that lineage networks enormously promoted private entrepreneurship but did not significantly affect collective enterprises.

KINSHIP NETWORKS AS SOCIAL CAPITAL

Sociological interest in kinship networks in China dates back to Max Weber ([1927] 1981, 1951), who observed that while being driven to extinction in the West by the Protestant Reformation and the rise of the modern state during the Middle Ages, clan organization was completely preserved in China and developed to an extent unknown elsewhere in the world. Below the county level, rural life in China was dominated by a very well-organized and powerful "sib organization." Weber observed that the clan organization was the most important "corporate actor" in the Chinese countryside, one that not only ran schools and built ancestral halls but also owned land and operated handicraft industries, extended cheap credit to its members, resolved conflicts, and administered justice (1981, pp. 44–45). Given the scanty information that Weber had to work with, this was a rather accurate picture, consistent with Chinese scholars' portrayal based on firsthand materials (e.g., Qian 1994; Wang 1991).³

The landscape has been drastically transformed by the communist revolution. The Communist Party made deliberate assaults on the lineage organizations. It confiscated clan communal land and properties, deprived clan elders of their power, repealed clan codes, and injected the ideology of class consciousness and class struggle to diffuse clan identity (Wang

³ There are three English terms for the Chinese concept of *zongzu*: lineage group, clan, and kinship networks. I use the three terms interchangeably.

1991). From 1949 to 1979, the economic foundation and organizational structure of the lineage system were systematically dismantled and replaced with collective farms and grassroots administration. Lineage seemed to be reduced to a subterranean cultural phenomenon, a lingering mentality. However, this dormant subterranean culture was to become vibrant again during the market reform era.

Whyte (1995, 1996) observes that despite tremendous changes, such as the shift from the extended to the nuclear family and the phasing out of prearranged marriages, some features of Chinese familism persisted, such as loyalty to the larger kin groups and sacrifice of personal interests for the sake of the family. Whyte believes that the familism and kinship loyalty are "the social roots of economic development" that distinguished the successful Chinese reform path from the unsuccessful Soviet reform experiences.⁴

Structural Features of Kinship Networks

To infer the social capital benefits of kinship networks, I will first examine their structural features. Kinship networks in contemporary Chinese villages feature strong ties, cultural identity, leadership, and density.

Strong ties.—In Chinese cultural construction, blood ties (*xueyuan*) are defined as the strongest ties, which can be further fine graded according to closeness or distance, such as whether the ties are to family, close relatives, or more distant kin. In traditional Confucian ethics, the norm against failing one's obligations to kin (*liuqin buren*) is so strong that it is considered an act of inhumanity. If personal friendship grows strong between nonkin, it is often overlain with fictive kin ties such as sworn brotherhood, not in the Christian sense that we are all children of God but in the sense that we are like siblings with blood ties. In the West the intrinsic strength of consanguinity ties is preserved only for family members and the closest kin.

Tie strength matters in the Chinese context because trust and obligations are bestowed differentially according to its gradient. Contrary to Granovetter's (1973, 1994) weak-tie thesis, Bian (1997) finds that strong ties are more important than weak ties in obtaining jobs in China because influence as well as information matters. Data from Singapore, a city imbued in traditional Chinese culture but with vastly different economic

⁴ Weber viewed such clan organization as an irrational force impeding the emergence of capitalist business organization. Recently, Martin Whyte (1995, 1996) challenged Weber's analysis and argued that strong family and kinship ties may have facilitated the rapid economic growth since the 1980s. The Weberian thesis and its recent re-evaluation will be treated in full in a separate paper.

institutions, confirm the strong-tie finding (Bian and Ang 1997), which suggests a cultural explanation. The eminent Chinese anthropologist Fei Xiaotong's insight about the "differentiated mode of association" (*chaxugeju*) rooted in Confucian culture pinpoints the key difference between Chinese and American cultures. Fei ([1947] 1992, pp. 25–33) observes that, whereas American society is organized by voluntary associations based on universalistic principles and qualifications, Chinese society is organized by concentric *guanxi* circles, extending from the family (the core), to relatives, friends, and so on. Literally, *guanxi* means social connection and is a synonym for special favors and obligations. The "weak-tie" phenomenon may reflect universalism and individualism, which do not condone special favors to strong ties. Western universalism and individualism can be traced to the Protestant idea of equality before God and, later, the ideas of natural rights and legal rights (Hamilton 1994). In contrast, the core of Confucian teaching is differentiated attitudes toward parents, children, siblings, kinsmen, and friends, and so on. The concepts of universal rights and individual jurisdiction are imported and foreign. The closest Chinese concepts are self-interest (*li*) and obligation to one's social ties (*yi*). A noble man would sacrifice self-interest to honor his obligations, whereas a commoner would forsake his obligation to serve his self-interest. The definition of "individual rights" in the Chinese context is thus *guanxi*-specific and particularistic. It is not universal rights, but ego's obligation to the alter: no tie, no obligation, and no rights. Thus, Westerners fight for rights and Chinese curry favor through *guanxi* ties (Fei 1992).

Cultural practices.—The revival of the lineage culture since the 1980s has been marked by a wave of reconstruction of ancestral halls (*citang*), compiling of genealogy (*zupu*), and the redecoration of ancestral burial sites (Wang 1991). The ancestral hall, the shrine where ancestors are consecrated, is the symbolic center of a clan. Genealogy books reinforce consanguinity ties and usually trace the clan pedigree back by hundreds of years, often with obvious exaggerations. During the collectivization campaign and the Cultural Revolution, ancestral halls were turned into offices, schools, or storage rooms, if not destroyed; genealogy books were burned as feudalistic remnants. With the more liberal atmosphere following the market reform, ancestral halls were rebuilt, genealogy recompiled, and annual pilgrimage to the ancestral burial sites reactivated, usually with the ardent support of clan members. These cultural practices help reinforce the bond between clan members, create group identities, and forge solidarity. As Weber (1951, p. 78) put it, "The cohesion of sib undoubtedly rested wholly upon the ancestor cult."

Leadership.—The authority of the clan heads used to be absolute and included meting out death penalties such as the caning or drowning of

serious offenders of clan codes. They lost their authority during the collective era but regained some after the onset of market reform. Without economic resources, the clan is no longer a well-organized hierarchy with a formal authority structure. Family remains the basic unit of action in rural China. The authority of clan leaders is mostly symbolic and ritualistic, based primarily on personal charisma, seniority, and ability. Their duties include presiding over marriage ceremonies and burial rituals, mediating conflicts within the clan, organizing collective activities, and occasionally making clan-related decisions (Wang 1991).

Density.—Comparatively, villages with strong kinship organization are more densely networked than those without. Network density eases the flow of information and engenders trust among members, enables them to cooperate with each other, and solves collective action problems. Many scholars (e.g., Gould 1993; Marwell, Oliver, and Prah 1988) have demonstrated the effects of network density on producing solidarity and collective action.

Even though no longer a corporate actor, lineage remains the locus of collective action and normative control in contemporary China. All its structural features spell social capital benefits. Strong ties provide the bonds and obligations, cultural identity generalizes bilateral bonds and obligations into group loyalty, and leadership and density help to mobilize resources into collective action and normative control.

Social Capital Benefits

At the core of Coleman's analysis of social capital is "generalized reciprocity." It refers to "mutual trust and commitment among interrelated actors that are independent of any specific transaction" and may result either from cultural values backed by effective norms or from repeated interactions among the same actors over time (Sandefur and Laumann 1998, p. 491). Generalized reciprocity is more efficient than specific reciprocity for the same reason that money is more efficient than barter (Putnam 2000).

Broadly defined, generalized reciprocity includes both bounded solidarity and enforceable trust as emphasized by Portes (1998). Portes defines bounded solidarity as the norms of mutual support that emerge out of a common plight such as discrimination against an ethnic group. Enforceable trust encourages cooperation between group members. The enforceability of trust hinges on the monitoring and sanctioning power of a community (Portes and Sensenbrenner 1993; Portes and Zhou 1992). Although Portes (1998) refuses to define social capital at the community level, both bounded solidarity and enforceable trust are obviously features of the community.

Kinship solidarity refers to the norm of commitment to collective interests and goals of the lineage group. It is not restricted to emergent, constructed solidarity in the face of a common plight but is based on intrinsic and primordial consanguinity. "Generalized reciprocity" in kinship networks does not come from rational calculation of expediciencies or even repeated exchanges but is engrained in the family name, embedded in history, cemented through generations living together, and reinforced by ancestor-worshipping rituals. Kin identity generalizes reciprocity.

Kin solidarity is a prominent feature of the lineage system (Wang 1991; Qian 1994). "The sib stood as one man in support of any member who felt discriminated against and the joint resistance of the sib, naturally, was incomparably more efficacious than a strike by a freely formed trade union in the Occident" (Weber 1951, p. 95). The following cases illustrate kin solidarity. Case 1 occurred in a village of Jiangxi Province; through organizing collective action and citing policies of the central government, the clan elders managed to baffle the attempt of township officials to inappropriately intervene in the village election (Xiao 2001). Case 2 illustrates an exceptional scenario where clan power superseded the authority of village government: the clan organization in one Jiangxi village grew so powerful that village cadres found themselves at the beck and call of the clan elders. When the township officials planned a surprise raid on the clan's illegal timbering activities, the village cadre informed the clan elders and slipped out of the scene. The township officials who came to the village were surrounded and beaten up by defiant clan members (Wang 1991). Case 3 depicts the dark side of kinship solidarity, an instance in which kinsmen got away with murder. One lineage group lynched an unruly young man from a neighboring village, and no one in the village would give names to the police investigators (Luo and Xiao 2001, pp. 503–4). Indeed, kinship solidarity often implies the domination and mistreatment of smaller lineage groups or detached families. Conflicts between individuals from different clans often lead to violent clan feuds.

Enforceable trust refers to the norm of mutual commitment between group members that promotes trustworthy and cooperative behaviors. Kin members are obligated to trade and contract with each other in good faith, to respect each other's interests, and to treat each other fairly. Personal trust is enforceable to the extent that the two parties share many strong ties. Kinship networks may serve as third-party enforcers by rewarding trustworthy behavior with good reputation and status and sanctioning defection with bad reputation and perhaps isolation. Concern for reputation and fear of gossips are a formidable pressure for trustworthy behavior.⁵

⁵ The distinction between solidarity and enforceable trust can be blurry sometimes. If

External bridging ties refer to nonredundant ties extending from a village that bring in market information and entrepreneurial opportunities (Burt 1992, 2001). Members of large kinship groups have more ties to government agencies at various levels and more relatives doing business all over the country and maybe overseas. With strong and bridging kinship ties, information and influence benefits are obtained.

I do not postulate that a kinship-networked village has more external bridging ties than other types of villages; instead, I argue that the internal density of kin networks multiplies, through indirect linkages, the information and influence benefits harvested via external bridging ties.⁶ Often, market opportunities may require the efforts of many entrepreneurs. More people exploiting market opportunities imply that there will be more successful entrepreneurs in the village. Even if there is competition, the most competent will be selected. In villages without dense kinship ties, external network resources are accessible only to those strategically positioned. If they have entrepreneurial acumen, then they could get rich first or lead the whole village to prosperity. If they do not, the value of the external bridges will simply go unrealized.

PEASANT ENTREPRENEURS AND INEFFECTIVE PROPERTY RIGHTS LAW

Rural industry has been the most dynamic sector in China over the past two decades and has played a crucial role in China's successful transition from a planned economy to a market economy. While China's gross domestic product (GDP) maintained an annual growth rate of 9.5% from 1978 to 1997, rural industrial output achieved an annual rate of 27% during the same period (China State Statistical Bureau 1998, pp. 12, 99). Rural industry has been the growth engine of the Chinese economy.

In official language, rural enterprises are called *xiangzhen qiye*, which

a member of the group is wronged by an outsider, the whole group unites behind him or her; or if a member violates group interests or breaches serious group codes, then the rest of the group organizes a collective sanction against him or her. These are cases of solidarity. When there is a conflict between two group members, e.g., such as breach of trust or mutual denigration, it is not very likely that the whole group will side with one against the other (unless one party is powerful and the other is not). More likely, the group may act as a mediator. This is the case of enforceable trust.

⁶ Burt (1992) initially argues that a network with many "holes" is the most useful because it provides nonredundant information and opportunities for brokerage and manipulation. This argument seems to contradict Coleman's (1990) emphasis of closure and density as forms of social capital. For Burt, density constrains individual autonomy; closure seals off structural holes. Recently, Burt (2001) proposes to reconcile the two perspectives by separating in-group closure and density from external bridging ties.

is translated as “township-village enterprises,” or TVEs, and actually include both collective and private enterprises. According to national statistics, from 1984 to the mid-1990s while the number of collective TVEs stagnated between 1.8 to 1.6 million, the number of registered private entrepreneurs, with or without employees, expanded from about 4 million to over 20 million. Although the collective sector maintained a healthy growth in terms of employment and output, the private sector was growing at a faster rate and surpassed the collective sector in the mid-1990s (China Ministry of Agriculture 1997–2001). After the mid-1990s, the collective sector started shrinking because of a privatization campaign.

The early success of collective TVEs has attracted much academic limelight owing to its apparent contradiction to orthodox property rights theory. Econometric analyses have found that collective and private rural enterprises did not differ in productivity or wage determination while both were outperforming the state-owned enterprises, or SOEs (Jefferson 1999; Jefferson, Rawski, and Zheng 1992; Peng 1992). Considering, however, that the government did not fully endorse and firm up its support for private entrepreneurs until the mid-1990s, the massive entries and employment expansion of the private sector in the early stage of the reform are even more fascinating. To unravel these puzzles, we need to examine both the formal and informal institutional contexts within which private and collective rural firms are embedded.

The Chinese Communist Party’s (CCP) policies and formal legal institutions regarding private entrepreneurs have gone through stages of strict prohibition, tolerance, accommodation, and encouragement. During the collective era from the late 1950s to the late 1970s, private entrepreneurship was a political taboo in China. While gradualism in liberalizing the market and privatizing state assets may have been instrumental for China’s successful transition to a market system, the delay in granting full rights to private entrepreneurs purely reflects ideological rigidity and institutional inertia against changes.

The restriction against private ownership started to loosen up in 1978 when Deng Xiaoping launched the economic reform program. The first few years of reform witnessed two “institutional innovations.” The first innovation was the household responsibility system that decollectivized farming by contracting out parcels of farmland to peasant households. This change was first initiated by poor peasants and then endorsed by the central government. The second major innovation occurred in the cities, where self-employment was promoted as a means to curb the acute and potentially destabilizing problem of unemployment caused by the sudden and massive return of urban youth who had been sent to the countryside in the Mao era. The urban unemployment pressure motivated the reform leaders to break the old taboo against private businesses by

allowing the returnees to employ themselves as peddlers and small business owners with an official name—self-employed individuals (*getihu*). The 1982 constitutional amendments stipulated that the rights of self-employed individuals should be protected (Dong 1999, p. 416).

As the number of self-employed “individuals” proliferated, some grew large and started to hire laborers, testing another ideological barrier: exploitation of the surplus value of others. In 1988 the Chinese constitution was amended again to describe self-employed individuals and private enterprises as “useful supplements” to socialist public ownership (Dong 1999, p. 417). “Private enterprises” (*siying qiye*) were defined as private employers with eight or more employees and were taxed at higher rates.

Chinese legal institutions have been subject to the swings of political ideology. After the Tiananmen student movement in 1989, the conservative faction implemented an austerity program and private entrepreneurs were hit the hardest. According to one estimate, the number of private enterprises was halved that year (Ling 1998). In 1992 Deng Xiaoping took a symbolic “southern tour” to Guangdong Province, the stronghold of reform, and reversed the 1989 conservative backlash. A tidal wave of private entrepreneurial activities followed Deng’s tour, including those of a large number of intellectuals in universities and state agencies who jumped into the sea of market opportunities after their political ambition had been shattered by the crackdown of the 1989 student movement.

Private enterprises formally shook off their “supplementary” status in 1997 when the Fifteenth Party Congress proclaimed nonpublic ownership as an important component of China’s “socialist market economy.” By then, the state had launched a privatization campaign under the rubric of “keeping the large and letting go of the small” (*zhuada fangxiao*). Many collective rural enterprises were sold, auctioned, or transformed into shareholding companies. In 2001, on the birthday of the CCP, President Jiang Zemin shocked many party members by announcing that the CCP should recruit private entrepreneurs because they represent advanced productive forces.

In general, the evolution of formal policies regarding private entrepreneurs is a process in which the central state has yielded, step by step, to the preference of the people while loosening its insistence on the “dominant role” of public ownership. Although constitutional amendments in the 1980s carved out a general platform for private entrepreneurial initiatives, the vague wording of the constitution, the ambivalent attitudes of the center, and the vacillating political ideology gave local actors much leeway to interpret and improvise. Grassroots cadres had deplorably little understanding of the concept of universal legal rights. After 30 years of socialist indoctrination, the idea of respecting the constitutional rights of

private entrepreneurs took time to sink in (Nee 1989). Enforcement of the constitutional rights of private entrepreneurs was ineffective at best. Specific legal codes to protect private property rights are still being incubated today. Private entrepreneurs have faced discrimination in dealing with banks, state agencies, and SOEs and have had to endure harassment and extortion by local cadres, tax collectors, and myriad other government officials. Local cadres have tended to suppress, harass, and prey on private entrepreneurs, sometimes out of ideological bias, and more often out of more rational reasons: their bonuses and benefits have been pegged to these "extra budgetary" revenues. Until recently, when their rights were violated, private entrepreneurs did not have any specific legal codes to turn to for help. They had to seek shelter in informal norms and social networks.

INFORMAL PROPERTY RIGHTS AND KINSHIP NETWORKS

Informal property rights, collective or private, refer to informal norms regarding who should control and derive benefits from scarce resources. Villagers' understanding of who has legitimate claims over what resources are governed by the moral precepts of rightfulness, fairness, and equitability. The key question is to what extent moral justice is enforceable. Without the backing of legal sanctioning, the effectiveness of informal property rights depends crucially on the sanctioning capacity of social networks.

The thrust of my argument is that kin solidarity and kin trust help to enforce the informal norms of property rights. For private entrepreneurs, kinship networks help protect them from predatory cadres and thus reduce the uncertainty and high transaction costs associated with insecure property rights and fledgling markets. For collective enterprises, kin solidarity helps to enforce collective property rights, which may mitigate employee shirking but aggravate incentive misalignment of the cadre managers. My theoretical reasoning and hypothesis derivation are encapsulated in table 1 and elaborated in the remainder of this section.

Private Entrepreneurs and Kin Support

Private entrepreneurs set up and run nonfarm operations as single households or multiple households in partnership, including both self-employed individuals (*getihu*) and owners of "private enterprises" with eight or more employees (*siying qiye*). Because legal enforcement of private property rights has been ineffective, private entrepreneurs depend to a large extent on informal norms for security. Chinese peasants do understand the dis-

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TABLE 1
VALENCE OF KINSHIP NETWORK BENEFITS FOR DIFFERENT TYPES OF ENTREPRENEURS
IN CHINESE VILLAGES

NETWORK BENEFITS	PRIVATE ENTREPRENEURS (Hypothesis 1)	CADRE ENTREPRENEURS	
		Weitzman and Xu (Hypothesis 2a)	Nee and Su (Hypothesis 2b)
Solidarity	Protection against preda- tory cadres	Overcoming free riding and managerial indiscretion	Attenuating infor- mal rights of cadre managers
Enforceable trust	Pooling of resources		Securing manage- rial contracts
External bridging ties ...	Information and opportunity	Information and opportunity	Information and opportunity

tion between collective (*gong*) versus private (*si*) property. However, moral justice can be manipulated and is in fact pale without the support of a social circle in solidarity or relatives in high places. Bereft of such social capital, private entrepreneurs would face a Hobbesian environment of predatory cadre and hostile villagers and be deterred from investing. Prior to the mid-1990s, cadre predation and political discrimination were probably the biggest obstacle to the development of private entrepreneurship, so much so that one county government felt it necessary to “put cats in the cage and let the mice prosper” (*zhuamao yangshu*), with cats metaphorically referring to predatory cadres.⁷

Historically, lineage organizations functioned to protect the lives and property of kin members (Qian 1994; Wang 1991), as well as to mediate conflicts and administer informal justice (Huang 1993). The protection of property was particularly relevant for private entrepreneurs during the

⁷ To circumvent political discrimination, many private entrepreneurs registered their enterprises as collective ones (hence they wear red caps). A “red cap” is essentially an informal agreement between the entrepreneur and local officials and often involves co-optation and corruption. By wearing red caps, private entrepreneurs expose themselves to the risks of property rights disputes because the officials may default on their promise or a reshuffle of government personnel may annul such a personal agreement. Such an entrepreneur’s only leverage against cadre defection is social approval and disapproval, which are binding only within a closely knit social network. It is hard to estimate what proportion of the registered collective enterprises was actually red-capped. Sachs and Woo (1997; Woo 1999) believe that most of them were private enterprises masquerading as collectively owned. In the wake of Deng’s southern tour of 1992, many of these red-capped entrepreneurs started taking off their red caps. The prevalence of the red-capping phenomenon indicated Chinese peasants’ mistrust of officials’ commitment to enforcing formal rules and their faith in the strength of informal norms.

reform era because they needed shelter from predatory cadres. Facing cadres' wrongdoings, villagers would typically swallow their grievances and avoid confrontation. The situation is analogous to Coleman's (1990, pp. 270–71) illustration of a group of mice whose number is slowly decimated by a neighborhood cat. The preying cat represents a public bad for the mice. The mice council decides to put a bell around the cat's neck, which is a second-order public good. Yet, who would volunteer for such a job? The risk by far exceeds the individual benefits. In this Aesop fable, a heroic act is needed to subdue a bad cat. In the case of a kinship group facing a bad cadre, intrinsic solidarity may enable it to overcome the second-order free-rider problem and organize collective sanction to keep the wayward cadre at bay. If the village cadre is nonkin, then he would not want to take on the power of the whole clan. If the cadre is kin, then he is bound by kinship obligations to protect and support fellow kin. If the cadre does not honor his obligation to support his kin and preys on them instead, he may face a collective sanction such as ostracism. This is not to say that predatory behavior never occurs among kinsmen, but that it may occur less frequently and less blatantly than among nonkin. Chinese peasants may not have the concept of universal rights, but they do have a deep-rooted sense of kin obligations. Kin has "rights"; nonkin does not.

Enforceable trust reduces costs in social exchanges such as interpersonal loans and pooling of funds. In China's reform process, private entrepreneurs have found it very hard to obtain bank loans due to political discrimination. Thus, informal financial institutions similar to rotary credit associations (such as *qianzhuang* and *biaohui*) have been very important channels for providing start-up capital or emergency cash for small-scale private businesses (Tsai 2002; Greenhalgh 1988).

During partial reform, *guanxi* ties in general and kinship ties in particular were important both for obtaining plan-allocated goods and for channeling market information. China's transition to a market system was carried out via a dual-track system, with the market track gradually outgrowing the planning track (Naughton 1995). During the 1980s the market sector was still underdeveloped, and many scarce resources were allocated via the planning track exclusively or at lower prices. TVEs were excluded from the planning track. Thus, patron-clientelist ties with government agencies and SOEs were important for TVEs in obtaining scarce resources (Nee 1992; Wank 1999; Xin and Pearce 1996). Both collective and private entrepreneurs spent much time and energy redeploying old *guanxi* and cultivating new ties with officials and SOE managers through munificent gifts or outright bribery. The fledgling market system also implies that formal and impersonal channels of information flow are sluggish. Thus, social networks are essential in channeling market informa-

tion. Wenzhou's story illustrates the point: the region has been well known in China for its vibrant private entrepreneurial activities since the 1980s (Liu 1992). Private entrepreneurs thrived there both because of the evolution of a symbiotic relationship between local officials and entrepreneurs and because of a far-flung network of traders, spanning wide geographic boundaries.

In sum, kinship networks confer all three types of social capital benefits for private entrepreneurs: by protecting private property rights, reducing uncertainty and transaction costs, and building better bridges to market information and entrepreneurial opportunities, kinship networks lower the entry barriers and raise the survival and success rates of private entrepreneurs. That is:

HYPOTHESIS 1.—Kinship networks facilitate the founding and growth of private entrepreneurs.

Cadre Managers' Rights versus Villagers' Rights

Cadre entrepreneurs manage collective rural enterprises. By official definition, all community residents are the nominal owners and the community government the de facto executive owner of collective enterprises. A collective enterprise has the advantage of being politically correct and having access to collective resources such as funds and land. It also has the classical disadvantages of public ownership, such as weak entrepreneurial initiatives, misaligned managerial incentives, and employee shirking.

Explanations of the early success of collective TVEs range from local state corporatism (Walder 1995; Oi 1999; Peng 2001; Lin, Cai, and Li 1996; Rawski 1999; Che and Qian 1998) to theses of cooperative culture (Weitzman and Xu 1994), informal privatization (Nee and Su 1996; Nee 1992), and outright privatization (Zhang 1997; Sachs and Woo 1997; Woo 1999). Local state corporatism is concerned with how collective TVEs mitigate soft-budget syndrome and agency costs that afflict the SOEs. In my opinion, before the mid-1990s, at least, local state corporatism correctly characterized the ownership nature of township-level collective enterprises. The township government, being part of the formal state bureaucracy, played the role of board of directors and relegated routine control over the enterprises to managers via responsibility contracts. The nominal ownership by township residents was too dispersed to exert any monitoring effect.

The village government is, however, no longer part of the formal state bureaucracy, and collective ownership is governed by different dynamics. On the one hand, formal control breaks down because the state has limited wherewithal to monitor village cadres. Control of village enterprises has

often been notoriously personalized or "familized" (*jiazu hua*), as village cadres have usually appointed either themselves or their close relatives as managers. On the other hand, the boundary of the village community is clearly demarcated, and villagers have clear ideas about their collective rights. Informal networks and joint action enable the villagers to monitor cadre managers and enforce their rights. Depending on villagers' capacity for collective action and cadre managers' self-discipline, profit sharing in practice has ranged from egregious malfeasance to egalitarian redistribution. Most often, villagers' payoffs consisted of employment opportunities and welfare benefits.

Weitzman and Xu's (1994) cooperative culture argument and Nee's informal privatization thesis are more pertinent to village level analysis. While both highlight informal norms and personal trust, they differ in perspective: one focuses on the rights of the villagers and the other on the rights of the cadre managers. Weitzman and Xu (1994) attribute the success of collective TVEs to Chinese peasants' ability to reach informal cooperative solutions. They observe that neither the village residents nor the village government has exclusive residual control and residual claim (Weitzman and Xu 1994, pp. 132–34). There is no true owner as defined by Alchian and Demsetz (1972) or Hart and Moore (1990). According to these property rights theorists, a firm can be understood as a nexus of long-term contracts between owners of various assets, and contracts are inevitably incomplete because of imperfect information, for example, difficulty in metering and future contingencies. When contracts are incomplete, opportunistic behavior prevails and conflicts abound. Thus, it is important to assign exclusive rights to residual control and residual income to one party, the owner, who will make best use of the control rights (e.g., monitoring and directing employees) to maximize residual income. This model assumes, Weitzman and Xu (1994) reason, that people are essentially noncooperative. However, if we assume that people are cooperative and can trust each other, then formal ownership may be less important because opportunistic behavior and conflicts would be less frequent and contingencies could be renegotiated amicably. Weitzman and Xu (1994, p. 138) speculate that Chinese peasants must have had a cooperative culture that would enable them to overcome prisoners' dilemma type of shirking so that employees would feel like owners and work hard on their own.

Nee (1992) interprets the success of collective TVEs as driven by private incentives. He emphasizes that the profit sharing between local governments and enterprise managers in the form of managerial contracts opened the door for informal privatization. By limiting their claim on enterprise profits to a fixed share, local governments virtually contracted out residual control over the firm to managers. Not backed by legal ownership, in-

formal property rights are vulnerable to costly contestation. "When contested, informal rights involve higher transaction costs than formal rights to exclusive use" (Nee 1992, p. 114). Thus, the success of informal privatization hinges on the stability and strength of the social networks in which managerial contracts are embedded.⁸

Neither Weitzman and Xu nor Nee directly discussed kinship networks, but the two perspectives can ramify into competing hypotheses. Obviously, kin solidarity would enable kin villagers to organize collective action and enforce their rights as nominal owners. Villagers without solidarity have little control over the behavior of cadre managers. The following two cases illustrate the point:

Case 1.—A couple belonging to a powerful clan in a Hebei village ran a successful village factory on a long-term lease. When the husband wanted to elope with one of his cousins and to relocate the enterprise elsewhere, thus threatening the job security of many kinsmen, the clan council stepped in. One clan head told the husband that "I do not mind you stealing from socialism, but I won't let you compromise the family interests." "Socialism" here is a metaphor for the village collective and "family" a metaphor for the clan. The husband was removed from the manager's post (Liu 2000).

Case 2.—A village in Shandong was once the wealthiest in the county owing to its successful collective enterprises. In 1997, the village was reduced to dire poverty overnight because the cadre manager of the village corporation decided to destroy everything in an attempt to cover up his years of theft and embezzlement. When asked why he would tolerate such an infringement on his interests, a villager answered: "There are so many people in the village and I only have a very small share" (Li 2001, p. 572). This is a typical collective action problem. Individual villagers do not consider it worthwhile to stand up against a powerful cadre.

For Weitzman and Xu, the cooperative norm in kinship networks would boost the incentive of the villagers by smoothing the partitioning of rights, mitigating cadre indiscretion, and overcoming free riding. If this argument is correct, we should expect that

HYPOTHESIS 2a.—*Kinship networks facilitate the development of collective enterprises.*

From the perspective of informal privatization, embedding collective

⁸ Informed by Williamson's (1991) distinction of market, hybrid, and hierarchy as generic forms of economic organization, Nee (1992) argues that informally privatized firms constitute organizational hybrids because of their close links with local government and reliance on the market. In a transitional economy, informally privatized firms had a competitive advantage over both unreformed state firms and private firms, because they could double dip in the lingering redistributive privileges and the high-powered incentives of the emerging market.

firms in kinship networks may be a double-edged sword. On the one hand, cementing managerial contracts in kin solidarity and trust excludes nonkin villagers and seems to secure the informal rights of cadre managers. On the other, kin obligations may attenuate the informal rights of cadre managers and may thus hurt their incentive. Villagers consider the collusion between the cadre and the manager as corruption and their claim for exclusive property rights as illegitimate. They resent being robbed of their fair share. If it is easy for cadre managers to exclude nonkin villagers from partaking of profits, it is much harder for them to deny fellow kin's legitimate claim for a piece of the pie. Nonexcludability leads to incentive-misalignment on the part of the cadre managers, who may resort to malpractices such as stealing or embezzling or hiding profits. Therefore, the unfavorable effects of the lineage may negate its benefits, leading us to our next hypothesis.

HYPOTHESIS 2b.—Kinship networks do not facilitate the development of collective enterprises.

DATA, MEASUREMENT AND METHOD

The administrative village is my unit of analysis. I use two sample data sets collected by sociologists at the Chinese Academy of Social Sciences in 1993 and 1994. The 1993 sample consists of 259 villages from 15 counties and the 1994 sample consists of 119 villages from 7 counties.⁹ The 22 counties were selected by "experts" with an eye to representativeness, and the villages in each county were randomly sampled on a proportional basis (for a description of the survey, see Shen, Chen, and Gao 2000). After deleting 12 villages from the two samples with missing or outlying values on key variables, 366 valid cases were retained.¹⁰

To give an idea of an administrative village, there are on average 439 households in the sample villages, with a mean population of less than 2,000. The largest village in the sample has a population close to 10,000, and the smallest village 194 people.

⁹ The 22 counties are Zhangwu, Haicheng (Liaoning); Huichun (Jilin); Anda (Heilongjiang); Zhangjiagang (Jiangsu); Tianchang (Anhui); Tongxiang (Zhejiang); Xingguo, Gaoan, Xunwu (Jiangxi); Sangzhi, Yizhang (Hunan); Yichang (Hubei); Xinhui, Xingnin, Meixian (Guangdong); Xichang (Sichuan); Lunan (Yunnan); Tongguan (Shaanxi); Wuzhong, Guyuan (Ningxia); and Huocheng (Xinjiang).

¹⁰ I excluded the 1991 sample of the same survey because it did not distinguish the ownership types of rural enterprises.

Measurement

Nearly identical questionnaires were used in both surveys, and they included questions regarding the number of rural enterprises in the village and the number of households belonging to each lineage group. The key variables are defined in the following, and basic statistics are reported in table 2.

Rural enterprises refer to all nonfarm enterprises that are owned by the village (*cun*), groups (*xiaozu*), or single or multiple peasant households.¹¹ Collective enterprises are those owned by the village government and may include a few owned by groups. Of the sample villages, 54% did not report any collective enterprises. On average there are 1.5 collective enterprises in the sample villages. Private enterprises include those owned by single households or multiple households in partnership. This measure does not include small-scale family operations, that is, self-employed individuals. Only 29% of the sample villages reported any private enterprises. On average there are 3.5 private enterprises in the sample.¹²

The rural enterprise employment is the total labor force working in rural enterprises, including both employees and employers. Because the growth of rural enterprises in China is primarily through size expansion, employment data should serve as a good alternative measure of rural industrial development.¹³ Collective enterprise employment includes managers and employees in all collective enterprises in an administrative village. Private enterprise employment includes employers and employees in all private enterprises (*siying qiye*) in an administrative village. Private sector employment includes private enterprise employment and all self-employed individuals (*getihu*) and their employees, often family members, in an administrative village.

Kinship networks are measured by the proportion of households that belong to the largest lineage group in the whole village. In the current

¹¹ Four villages reported one or two firms that were wholly or partially funded by overseas investment (*sanzi qiye*). I did not count these firms as rural enterprises.

¹² There are two cases in which the number of private enterprises is larger than 100, and 10 cases in which the number of private enterprise managers is larger than 200. As these outliers do not overlap, I recalibrated them according to regressions of each variable on the other. As a result, the largest count of private enterprises is now 96, which is credible. Recalibration with stricter criteria did not change much the results of my statistical analysis.

¹³ These measures are taken from questions regarding the occupational classification of the village labor force and are separate from questions about the number of collective and private enterprises in the village. Thus, there are some minor discrepancies in measurement. For instance, the workforce of collective enterprises may include some commuters who work in township-owned enterprises. Such discrepancies serve as a good robustness check of the regression results against measurement errors.

TABLE 2
DESCRIPTIVE STATISTICS OF CHINESE VILLAGES, 1993–94

Variable	Minimum	1st Quartile	Median	Mean	3d Quartile	Maximum
Population	194	1,098	1,587	1,844	2,405	9,663
<i>N</i> of households	53	254	388	439	565	1,650
<i>N</i> of collective enterprises	0	0	0	1.5	2	26
Employment in collective enterprises	0	0	3	51	32	2,500
<i>N</i> of private enterprises	0	0	0	3.4	1	96
Employment in private enterprises	0	0	0	21	9	1,094
Employment in private sector	0	5	16	45	48	1,178
% largest lineage group	0	0	14.9	21.8	29.3	100
% finished junior high school	2.2	13.3	20.4	22.2	28.3	86.6
Farmland per laborer (mu) .....	.3	1.5	2.2	3.5	4.1	19.3
Collective savings 1976 (yuan)	0	4,915	6,003	24,550	19,540	686,900

NOTE.—*N* = 366.

sample of 366 administrative villages, on the one extreme five villages uniformly share the same surname (i.e., the whole village descends from the same ancestors) and another 10 have over 90% of the households belonging to the same lineage group; on the other extreme about a quarter of the sample villages (95 cases) do not have any lineage groups and therefore report zero on this variable. On average, 22% of the households belong to the largest lineage group and 40% belong to the top three groups.¹⁴ As the lineage system is patrilineal and patriarchal, it excludes marital ties of wives and daughters, which are another important source of social capital in rural China.

The following defines control variables that are relevant for rural industrialization but not key for the current analysis.

Total rural labor force is the number of all able-bodied laborers who are registered residents in the administrative villages.

Human capital stock is measured as the proportion of people with at least junior high school or equivalent education in the village labor force. On average, 22% of the village labor force had completed junior high school. Nee (1992) argues that the market transition should enhance the return to human capital in rural China. In the research based on county level data, Peng (1999) finds that human capital stock has a much stronger impact on rural industrial growth than on agricultural growth, which

¹⁴ An alternative measure of kinship network is the proportion of households belonging to the top three lineage groups. It is rare for a single lineage group to dominate the whole administrative village because the state often intentionally broke up or combined lineage groups to avoid such dominance. During a field trip to Jiangxi, I found that administrative villages often consist of a few lineage groups, each dominating one or two natural villages. The alternative measure yields consistent results in regression analysis (available from the author).

suggests that enhanced return to education was probably due to rural industrialization through which a large proportion of the rural population shifted off farm.

Urban proximity is measured by the log distance between the village and the nearest city. Naughton (1995) observes that during that early stage of economic reform rural reform was more successful than urban reform, resulting in the expansionary force of urban industries spilled over into the surrounding countryside. Peng (1999) finds that proximity to cities is an important explanatory factor of rural nonagricultural growth.

Land-labor ratio is the total amount of farmland divided by the total rural labor force. This is the inverse measure of a village's surplus labor. Entrepreneurship provides an alternative livelihood for idle farmers short on farmland. Alleviating unemployment pressure is one of the motives and effects of rural industrialization. Land-labor ratios vary greatly from village to village. In an average village, each peasant has slightly more than half an acre of farmland (one acre = six *mu*), with a minimum of one-twentieth of an acre per peasant and a maximum of nearly three acres per peasant.

Initial collective accumulation is measured as the village collective savings in 1976. As log income data proximate normality, I reassigned normal random numbers below the mean to 22 cases reporting zeros on this variable. Another 112 missing values were replaced with the sample mean.

Fixed county effects are included in the regression to control for any regional variations in formal institutional contexts and to correct for the two-stage sampling design of villages nested within counties. There have been large regional variations in local policies regarding private businesses. For instance, officials in Wenzhou (Zhejiang) and Shishi (Fujian) had a reputation for turning a blind eye to the early emergence of private entrepreneurs (Liu 1992; Chen 2001). Officials in southern Jiangsu, however, were known to banish private entrepreneurs until the mid-1990s when the central government forbade this practice (Zhe and Chen 2000). Formal institutions are shaped by laws and policies made by central, provincial, prefectural, and, to a lesser degree, county-level governments. The county government is an important actor on the national stage and in peasant daily life and including fixed county effects should control for any formal institutional variations.

Statistical Model

Two indicators of rural entrepreneurial development will be analyzed: the numerical counts and employment sizes of rural enterprises. Count data are usually estimated with either a Poisson model or a negative binomial model. Poisson distribution is more restrictive than negative binomial

distribution because it assumes that the variance equals the mean. As the count of rural enterprises and their total employment size in Chinese villages are highly skewed (with many zeros) and therefore may be overdispersed, I assume negative binomial distribution. Separate but parallel regressions for collective and private enterprises are estimated to evaluate whether kinship has similar or different effects on each. The negative binomial regression model is specified as

$$\ln \hat{Y} = \alpha + \beta K + \gamma \mathbf{X} + \delta \mathbf{C},$$

in which \hat{Y} stands for predicted counts or employment size of rural enterprises (collective or private); K for the proportion of households belonging to the largest lineage group in the village; \mathbf{X} is a vector of controlled variables including log collective savings in 1976, log number of villagers with at least junior high schooling, log distance from the nearest city, log farmland per laborer, and log current labor force size; \mathbf{C} is a vector of 21 dummy variables for counties. Negative binomial models were estimated in STATA 8 (both data and the Stata program codes are available from the author).

RESULTS

The results of statistical analyses are presented in table 3. Regressions of both enterprise counts and enterprise employment yield quite consistent results. Briefly, kinship networks in Chinese villages have large positive effects on the development of private enterprises and insignificant effects on the development of collective enterprises. The following examines the findings in more detail.

First, kinship networks exert very strong and consistent effects both on the count of private enterprises and on their employment sizes, confirming hypothesis 1. Equations (1) and (4) in table 3 show that a 10% increase in the proportion of households belonging to the largest lineage group is expected to increase the count of private enterprises (not including self-employed individuals) in the village by 33% ($\approx e^{.287} - 1$) and to increase their workforce size by 24% ($\approx e^{.212} - 1$). If we take self-employed individuals into the picture (eq. [3], table 3), the corresponding effect is smaller but still significant: a 10% increase in the proportion of households belonging to the largest lineage group is expected to increase the total employment in the private sector by 7%. Apparently, kin support is more important for owners of private enterprises (*siying qiye*) than for self-employed individuals (*getihu*). This may suggest that kin networks not only helped private entrepreneurs to start up as self-employed but also helped them greatly to grow into an "enterprise," albeit still small in scale.

Kinship Networks and Entrepreneurs

TABLE 3
NEGATIVE BINOMIAL REGRESSION OF ENTERPRISE COUNTS AND EMPLOYMENT IN
CHINESE VILLAGES BY OWNERSHIP TYPES

	COUNT OF ENTERPRISES		WORKFORCE SIZES		
	Private (1)	Collective (2)	Private and <i>Getihu</i> (3)	Private (4)	Collective (5)
(Intercept)	-15.17*** (4.19) ^a	-4.653 (1.59)	-5.012 (1.34)	-4.955*** (4.45)	1.881 (.74)
% largest lineage group (× 10) .....	.287** (3.32)	.007 (.21)	.070* (2.20)	.212* (2.25)	.014 (.21)
Log % junior high or above school- ing	1.305** (3.06)	-.27 (.17)	.454** (3.26)	1.274** (3.00)	-.225 (.89)
Log distance from city	-.146 (.82)	-.184* (2.33)	-.044 (.52)	-.146 (.66)	-.028 (.20)
Log collective sav- ings 1976 .....	.283 (1.54)	.094 (1.37)	.038 (.62)	.138 (.75)	.016 (.14)
Log land-labor ratio	-.380 (.98)	-.289 (1.77)	-.076 (.46)	-.025 (.06)	-.765* (2.49)
Log total village la- bor force	1.461*** (3.95)	.660*** (3.71)	.932*** (6.20)	1.367*** (3.57)	.979*** (3.66)
Fixed county effects ^b	(53.53)***	(131.8)***	(59.19)***	(28.88)	(128.0)***
Dispersion	5.619	.764	1.435	7.707	3.789
Log-likelihood ratio χ^2	94.49	188.05	178.05	79.77	183.99
<i>df</i>	27	27	27	27	27

NOTE.—*N* = 366.

^a Figures in parentheses are the absolute values of *z*-ratios.

^b Wald test, *df* = 21.

* *P* < .05, two-tailed tests.

** *P* < .01.

*** *P* < .001.

Private entrepreneurs needed kin support even more as they grew beyond the scale of family operations, testing more political restrictions and attracting more cadre predation.

Second, the coefficients of kinship networks on collective enterprises are very small and statistically insignificant (eqq. [2], [5], table 3). It seems that kinship networks had neither helped to increase the count of collective enterprises nor facilitated their employment expansion. These findings

refute Weitzman and Xu's cooperative culture hypothesis (2a) and lend support to Nee's information privatization hypothesis (2b).

Third, all control variables have correct signs even though some are insignificant. For instance, the number of people with at least a junior high school education has a large and significant effect on the count of private enterprises, in line with the common wisdom that schooling brews entrepreneurial skills. Collective enterprises do not need many people with entrepreneurial talents and therefore their success does not seem to be significantly related to the education level of villagers. Distance from cities has consistently negative coefficients for all regressions, even though not always significant.

CONCLUSION

This study has accomplished three tasks. First, integrating new institutionalism with social network analysis, I developed a simple framework for exploring the intricate link between social networks and economic growth that highlights the interdependence between formal and informal institutions. Second, using this framework, I have advanced a theory about the economic payoff of kinship networks in Chinese villages. Informed by Nee's informal privatization theory, I have emphasized the role of kinship networks in providing informal enforcement of private property rights when the formal property rights laws were vague and ineffective during partial reform. I argue that kinship networks should promote private businesses mainly because kin solidarity and trust protect private entrepreneurs against predatory cadres, thus reducing uncertainty, lowering entry barriers, and raising the survival and success rates of private entrepreneurs within the lineage group.

Third, using data of 366 Chinese villages, I have shown that kinship networks have had large positive effects on the growth of private entrepreneurship. Specifically, kinship-networked villages tend to have more private entrepreneurs and, particularly, relatively more sizable private enterprises. To put the effects of kinship networks in perspective, the average proportion of households belonging to the top three lineage groups in the sample villages nearly doubles the count of private enterprises ($\approx e^{0.287 \times 2.18}$), *ceteris paribus*. That is to say, without kinship networks the total number of private enterprises (*siying qiye*) in Chinese villages in the early 1990s would have been sliced by half.

Ascriptive and exogenous, kinship networks represent a form of social capital that is established "for noneconomic purposes, yet with economic consequences" (Coleman 1994, p. 175). Kinship networks have facilitated private entrepreneurship via three possible mechanisms: the informal en-

forcement of property rights (solidarity), the pooling of funds (enforceable trust), and "network resources" via external bridging ties. I interpret these findings as evidence of the informal protection of private property for the following reasons. First, the effects of kinship networks on the count of private enterprises are too large to be simply the effects of conventional "network resources." It is doubtful that kinship-networked villages produce more total external ties than other villages. Rather, the internal density and solidarity of kinship networks amplify the benefits of external bridging ties. Second, kin networks do not significantly affect collective enterprises because protection of private property rights is irrelevant.

The large positive coefficients of kinship networks on private entrepreneurs and the small insignificant coefficients on cadre entrepreneurs are logically coherent. The theoretical underpinning of both findings is that kinship solidarity enhances normative control. In the case of private enterprises, the normative understanding of property rights is on the side of the private entrepreneurs, and kinship solidarity protects them against predatory cadres. In the case of collective enterprises, the normative understanding of property rights is on the side of the villagers. By enforcing the collective rights of the villagers, kin solidarity attenuates the informal property rights of the cadre managers and thus may cancel out the benefits of kin trust and external bridging ties. Managerial shirking is harder to manage than employee shirking and more detrimental to firm performance.

Even though more evidence is needed before a firm conclusion can be reached, the findings here do not seem to lend support to Weitzman and Xu's cooperative culture argument. The key to the viability of the village-level collective enterprises was probably not vague cooperation but informal privatization. Cooperative culture will probably help, by overcoming free riding, the efficient use of common pool resources, which are usually indivisible or not worthwhile to establish exclusive rights. However, an enterprise is not exactly like "common pool" resources. An enterprise is quite divisible and has profitable assets. Informal solutions to cooperative problems tend to break down when the stakes are high. Ambiguous ownership and implicit contracts may have the advantage of being renegotiable, but renegotiation can be very costly and increased uncertainty dampens entrepreneurial incentives. Without political discrimination, entrepreneurs would prefer exclusive private rights. The fact is that control over collective enterprises is jealously vied for. Successful cadre entrepreneurs tend to secure exclusive control over village corporations by staffing family members in key management positions while sharing some profits with villagers in return for legitimately using collective resources.

Taken together, the above results suggest that the cooperative culture

embodied in kinship networks probably leads to private rural industrialization rather than to collective industrialization. The clan is no longer a corporate unit of action but a locus of collective action and normative control. It is not well organized enough to run collective enterprises of its own. It is unlikely that the choice and dominance of collective rural enterprises in some regions reflect the cooperative culture embodied in the remnant lineage system. If "a cooperative cultural tradition" played any role in the local corporatist development in some regions, it had to be a new legacy inherited from the collective farming. Even this continuity more likely reflects institutional inertia and organizational path dependency rather than a psychological preference. If Chinese peasants had created a cooperative cultural norm to overcome shirking, collective farming would have worked well.

In studies of the interdependence of formal and informal institutions, focus is usually on the coupling or decoupling between the two. This study would suggest another dimension, that is, the relative strength of the normative capacity of the formal organizations (the state apparatus) vis-à-vis the informal social networks. When formal institutions are vague and ineffective, informal rules do not supplement but substitute formal rules, and the normative capacity of social relations not only subsumes the costs of formal sanctioning but takes its place. They shape the institutional context and play a key role in reducing uncertainty. If the normative capacity of the social networks is strong, then spontaneous social order may emerge to reduce uncertainty. If the social roots of order (to paraphrase Whyte) are dislocated, Hobbesian anarchy may fall.

A transitional economy is characterized by fluidity, inconsistency, and ambivalence in its formal institutions. The early stage of China's reform was without a blueprint, depicted as "wading the river by groping for stones." Limited in its legislative and judiciary capacities, the state loosened its grip over the society, gave a more liberal reign to the spontaneous normative capacity of social capital, and allowed the local actors to experiment and innovate. When the Chinese government was hesitating and wavering in its support of private entrepreneurs, local cadres with vested interests in the status quo chose to suppress, harass, and prey on private entrepreneurs; and the latter sought to fend, co-opt, or corrupt. Both interpreted and twisted formal rules and informal norms to their own advantage. It appeared that in villages with strong lineage networks, private entrepreneurs had a better chance to prevail; in villages without, predatory cadres tended to prevail. Apparently, kinship networks enabled some Chinese peasants to find a solution to the problem of economic growth amidst institutional uncertainty.

Liberalization itself may or may not generate economic growth, but without a liberal environment social capital could not have a big role to

play. Indeed, prior to economic reform, when formal rules strictly forbade private businesses, the lineage system itself was driven dormant, let alone protecting private entrepreneurs. Conversely, as the Chinese government strengthens its support for private property rights and builds more effective property rights and market institutions, I expect that the effects of kinship networks will wane somewhat. If informal institutions alone can have such a large effect on economic performance, then correctly designed formal institutions should produce at least equal or even more dramatic effects. There is much room for China to improve its legal institutions.

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