

# **The Significance of Networks in the Initiation of Small Businesses in Taiwan<sup>1</sup>**

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This paper investigates theoretically a factor which impacts the institutional and structural environment of initiating small investments in Taiwan, namely personal relationship networks. A potential investor needs market opportunities in order to earn profit, business organization to exploit the opportunity, and capital to initiate the business. In Taiwan's network economy, the solidarity provided by "family" networks makes small initial business organizations possible. Subcontracting systems, both horizontal and vertical, make the entry-level investment low, and

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the decentralized production/ marketing processes provide numerous market opportunities for small investments. Taiwanese entrepreneurs opt to start their business ventures primarily through the use of network financing, since bank loans fall under the dominion of government policies.

**KEY WORDS:** social networks; small businesses; subcontracting; trust; network financing

## I. Introduction

The phenomenon of small individual investment has caught the attention of many scholars for some time now, especially during the recent boom years for small business. Taken as a part of the informal economy, self-employment<sup>4</sup> was once viewed as the result of labor market failure (Field, 1975). It was seen as the involuntary, low-pay and unstable form of employment created when the formal sector's wage structure was too rigid to absorb the entire labor force. In various development studies, dualism (Fei and Ranis, 1964; Paauw and Fei, 1973) also takes self-employment to be the result of structural imbalance. It was thought of as a traditional and peripheral mode of production that appears when capitalist labor processes fail to hold sway in industrialization (Braveman, 1974; ILO, 1972).

Another viewpoint arose when the self-employment sector grew, rather than shrank, in post-industrial societies. In the U.S., the number of business units filing tax returns increased from 10.5 million to 16.8 million between 1958 and 1980 (Case, 1992). In addition, the proportion of non-agricultural self-employed workers in the total labor force was 9.7% in 1990, but only 6.7% in 1970 (Devine, 1994). This historical trend is contrary to the arguments of dualism, and has caused some scholars to view self-employment as a voluntary form of profit-seeking activity (Evans, Blau, *et al.*). In other words, it is small individual investment aimed at earning a profit, rather than involuntary employment needed to earn a subsistence wage. Most economic studies in this school focus on personal attributes, which characterize those who select self-employment. Age (Evans and Leighton, 1987), education (Blau, 1985), assets and

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<sup>4</sup>The definition of the self-employed here includes only sole-proprietorships, partnerships and small-sized firms, but excludes employers of large firms.

liquidity constraints (Evans and Jovanovic, 1989), marriage status (Long, 1982), and family background (Wit and Winden, 1990) all have been investigated as factors in choosing self-employment.

Sociologists, on the other hand, ask why people in one social context are more likely to choose self-employment than those in another, thus introducing cultural, structural, and institutional factors into the study of small individual investments. The popularity of small individual investments<sup>5</sup> in Taiwan has been observed fully by many scholars (Shieh, 1992; Gold, 1986), especially when comparing Taiwan with its East Asian counterparts (Hamilton 1989; Hamilton, Zeile, and Kim, 1990; *et al.*). When studied using a cultural perspective, the Chinese small business tradition can be traced back to the beginning of the sixteenth century. In this roughly three hundred year long period of economic growth without significant technological change, thousands of small towns filled with petty traders and family factories appeared near most major cities (Mark Elvin 1973).

Paralleled with Weber's argument that the Protestant work ethic has undergirded the "capitalist spirit" in 19th century Europe, Confucianism has also been studied to determine its role in accounting for the prevalence of Chinese entrepreneurship (Winston Davis, 1987). As Thomas Gold observed:

"There is an excess of entrepreneurial spirit here. Everyone--students, businessmen, the man on the street--is always asking what they should invest in and how to make

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<sup>5</sup>Small individual investments also include moonlighting subcontracting and part-time speculation, in addition to self-employment, in Taiwan. However, this paper mainly focuses on self-employment only in the following discussion.

money." A casual visitor to Taiwan, Hong Kong, the Chinatowns of Southeast Asia, even Shanghai could not help but agree with this statement from an observer of the Taiwan business scene.... History has proven that given the proper environment, Chinese respond vigorously in seizing such opportunities (Gold, 1981:145).

Industrial structure also has been examined by both economists and sociologists in comparing industrial and post-industrial societies. Neo-service economies are thought to provide more opportunities for small investments than those economies characterized by capital-intensive and scale-economic industries (Aronson, 1991). Piore (1980) also argues that unstable markets are a good fit for small investments, while stable markets are mostly dominated by sterile and bureaucratic big firms. In the ongoing crisis of mass-production and mass-distribution, flexible specialization and quick response to unstable consumer demands have been one of the chief ways in which corporations have sought to respond (Piore and Sabel, 1984). Thus, small investments have entered a prosperous era in "consumer society" since the mid-70s.

With the introduction of institutional and structural factors, it is natural to investigate the process of initiating small investments, and to ask how the institutional and structural environment helps or hinders initial investors. With only motivation and entrepreneurship behind a decision to select self-employment, the potential investor is not well-prepared for his/her undertaking. He/She still needs a market opportunities in order to earn profit, business organizations to exploit the opportunity, and capital to initiate the business.

This paper will investigate theoretically a factor which impacts the institutional and structural environment of initiating small investments in Taiwan, namely personal relationship networks. In a "network economy" (Gary Hamilton's term, 1989; 1990) of the Taiwanese type,

personal networks help an individual to organize a business entity, find a profit niche, and raise capital. In Shieh's description of the spinning-off of "bosses" (1992:175-209), there are scattered stories about how subcontracting relations offer contracts to spinning-off bosses, how utilization of family labor helps to complete the contracts, and how relatives and friends lend money to initial investors. Network features of the Taiwanese economy have been studied by many outstanding researchers, including as Hamilton, Orru, Biggart, Kao, *et al.* Applying these arguments to a specific area of the economy, this paper will use the network perspective to examine how small investments are initiated, in order to understand the economic functions of relationship networks involved in the selection of self-employment in Taiwan.

## **II. "FAMILY" NETWORKS AND BUSINESS ORGANIZATIONS**

Mark Granovetter, in Chapter Four of his draft Society and Economy (1990 draft), argued that a lack of trust is the main obstacle to forming economic organizations. Taking the pasar traders of Modjokuto as an example, Granovetter first described the high-frequency of short-lived alliances among small traders, and then explained this phenomenon by quoting from Geertz:

[What is lacking here] is not capital, for their resources are not inadequate; not drive, for they display the typically 'Protestant' virtues of industry, frugality, independence and determination in almost excessive abundance; certainly not a sufficient market.... What they lack is the power to mobilize their capital and channel their drive in such a way as to exploit the existing market possibilities. They lack the capacity to form efficient economic institutions; they are entrepreneurs without enterprises (1991:15).

In other words, they lack the group solidarity needed to form the long-term trust necessary to

operate a long-term business. Granovetter also examined the case of Estancia in the Philippines where social structures are formed "in a way that stresses vertical, hierarchical, patron-client relations"(1991:16). He used this example to explain why "social systems with a lack of horizontal solidarity--which can arise in various ways--are deficient in the trust required to build enterprises larger than that run by individuals or families"(1991:16).

Applying Granovetter's argument to the Taiwanese case, what provides the basis of long-term solidarity required by so many spinning-off bosses? Briefly stated, the solidarity provided by "family" networks (in their extensive sense--see Hamilton & Kao, Cheng-Shu, 1990:19-21) makes small initial business organizations possible. Motivation to spin off --entrepreneurship alone -- is insufficient to establish business organizations. As Granovetter argues, the emergence of stable firms requires long-term trust. When I examine the organizational structure of Taiwanese businesses and Chinese traditional values, I find that the solidarity of "family" networks vividly supports the existence of a large amount of Taiwanese small investments.

Taiwanese business organizations are built on strong-tie guanxi (relationships), which includes family members, relatives, and most intimate friends. The "family" networks formed by these guanxi referred to in this paper are used to indicate the solidarity base of extensively-defined "family firms" (definition see Hamilton and Kao, 1990). Business organizations in Taiwan are mostly established on the strong basis of "family" networks. That is why Hamilton called the Taiwanese economy guanxi capitalism (Hamilton, 1989:12).

In the following, I will use new institutionalism to explain this phenomenon. In contrast to technically-oriented or economic-efficiency approaches to the study of organizations, new institutionalism "turns attention to institutional environments, the socially-constructed normative

worlds in which organizations exist"(Hamilton, *et al.* 1987:1). Morality in traditional Chinese society has been defined primarily by the responsibilities associated with different social roles. The five highest principles of Confucian ethics in Two-Han are the mutual duties required between emperor and subject, father and sons, husband and wife, brothers and sisters, and friends. Unlike the Pre-Ch'in (prior to B.C. 221), when orthodox Confucianism was mainly a life philosophy of intellectuals. Two-Han Confucianism transformed this system of thought into an ideology that served the interest of emperors (Yu, Yin-Shih, 1981). Therefore, the concept of the five principles of ethics (which was first introduced by the Two-Han Confucianist, Tung Chung-Shu) establishes absolute authority and loyalty as the basis of personal relations. In the Pre-Ch'in doctrine, personal relations were considered a mutual responsibility with each person an independent actor. Therefore, relations required kindness and carefulness on both sides in order for harmony to be maintained. In the five principles of ethics, however, relations are maintained by one-way submission and one-way loyalty, particularly between emperor and subject, father and sons, and husband and wife. Once these relations were established and recognized by society, to break them was considered the worst form of immorality. Tung Chung-Shu even used these principles to legitimize criminal codes. As a result, after the two-thousand-year rule of this ideology, strong-tie relations last for life in traditional Chinese society, once they have been established. The relations within "family" networks (i.e., among family members, close relatives, intimate friends, and formally recognized relations) are ruled by the five principles of ethics. Therefore, these guanxi are by necessity strong ties of personal relationships because they constitute an integral part of Chinese culture. The strong solidarity provided by the five principles makes "family" networks fixed, stable, and long-lived.

Hamilton and Biggart extended this argument to build the "authority structure model," in



which organizational structure is explained by authority patterns in the society. This approach focuses on the traditional pattern of command in conjunction with the influence of state intervention (Hamilton & Biggart 1992:199-208) and convincingly explains the structure of contemporary Taiwanese business organizations. In the Chinese traditional command system, the basic unit of analysis is not the individual, but the "family" in its extensive definition. A person in a "family" has a strong sense of belonging to a "we-group"--a feeling of the solidarity of the inner circle--who together share all benefits and setbacks. Outside the inner circle, other subordinates or temporary alliances have only partial common interests. The struggle for power within the political command system was a typical example of this phenomenon. If a politician won a power struggle, his/her "family" members, determined by strong ties of personal relationships (especially blood relations and political comrades) would control all key positions in the power structure. According to an old Chinese saying, "When a person gets the calling of God, all his/her pets enter the door of heaven". If he/she loses, all his "family" members are sent to the guillotine. It is easy to understand the importance of "family" solidarity in this command system. This authority structure is the basis upon which modern Taiwanese economic organizations are built.

Influenced by Granovetter's argument, I reinterpret "family" as the creator of the solidarity necessary for Taiwanese business organizations, because the traditional ethics of "family" guarantee the long-term trust required by an economic organization. In most cases of small investment, this long-term strong trust is not only helpful in daily control and management, but also provides free labor and initial capital, which are essential for an initial investor. "Family" networks in Taiwan make firm-like organizations possible for small investors and turn an individual's entrepreneurship into actual investment plans. Without them, a person with

entrepreneurship is an "entrepreneur without enterprise"(Geertz, 1963:28).

Why don't personal relations in such "traditional", "irrational" organizations go beyond mere economic interests, and therefore diffuse capital? On the one hand, social relationships and group solidarity provide the necessary trust for forming organizations and raising capital. On the other hand, social relations may result in non-economic claims on an economic organization. The rationality separating economic and non-economic functions in a modern firm is therefore non-existent. The Balinese culture in Tabanan in Indonesia, as described by Geertz, is a case of the "overuse" of social relations. Both horizontal and vertical solidarity are present in the Balinese culture, but its firms are too inefficient to compete with Chinese firms. Non-economic claims from social relations are the reason. As Geertz explains it:

...[T]he popularly based concern has a tendency to behave uneconomically because of the "social welfare" pressures of its members who, for the most part, are not basically growth-minded. Not only is there great pressure to divide profits rather than reinvest them, but there is also a tendency to employ overly large staffs in an attempt by the directorate to appease the rank and file (1963:123).

Social relations performing economic functions inevitably face advantages and disadvantages. How can we minimize these disadvantages? Granovetter provides the answer: a balance between coupling and decoupling. The under-use of group solidarity results in a failure to form enterprises, while the overuse of group solidarity results in an overload of duties on enterprises that makes it impossible to operate effectively, if at all. Granovetter used overseas Chinese in Modjokuto as an example to find the balance point between under-use and overuse. Overseas Chinese established rotating credit associations based on the locale of emigration. The

comparative segregation of Chinese communities by spatial location reinforced the loyalty among group members, on the one hand, but it limited the number of group members on the other. The small size of each group limited the total amount of non-economic claims that could be made on the economic organization. Therefore, the overuse of social relations didn't prevent overseas Chinese in Modjokuto from building long-term enterprises.

The balance of coupling and decoupling proposed by Granovetter is also a good hypothesis for the solution of the disadvantage of "family" firms in Taiwan. Although strong-tie *guanxi* in this society serve many purposes, there are not many inner-circle members in these "family" networks, and thereby non-economic claims are also limited. All other social connections, including the weak ties in business subcontracting networks, only serve very limited purposes(i.e., mutual economic interests).

### **III. Subcontracting System and Market Opportunities**

Where are the profit niches of spinning-off bosses? The Taiwanese type of subcontracting system provides the most important answer. It is composed of two kinds of subcontracting -- horizontal and vertical. Horizontal subcontracting, also called capacity subcontracting, refers to farming out a portion of the work to similar factories. This mechanism allows a contract to be divided into numerous segments, each carried out by different firms. A small firm can thus take a big contract and provide market opportunities for other small investors. According to Ka's study of the garment industry in Wufenpu, near Taipei, subcontracting of this sort can be used to casualize the labor force so as to keep organization flexible in unstable markets (Ka, 1993:160-178). Fixed labor costs can therefore be transformed into variable costs (Ka, 1993:138; Shieh, 1992:82), and fixed investment can be lowered, especially when market demand is fluctuating.

Vertical subcontracting indicates forward and backward linkages by means of which a firm can access inputs and markets. This mechanism can break a production/marketing process into various phases. Small investors, therefore, need only limited capital and technology to complete a phase and then use vertical subcontracting to fulfill the whole process (Shieh, 1992:85-87). Subcontracting systems, both horizontal and vertical, make the entry-level investment low, and the decentralized production/marketing processes provide numerous market opportunities for small investments, since Taiwanese business units depend on one another.

So here then is a picture of the Taiwanese web-like subcontracting structure -- "family" networks are the fundamental nodes of the structure, and horizontal as well as vertical subcontracting relationships are the arcs linking them.

This picture of the business structure is somewhat fragmented because we see hardly any large conglomerate occupy a large part of the picture. Taiwanese business groups and big firms are comparatively small and lack vertical integration. Therefore, they don't squeeze out the living space used by subcontracting systems, which are comprised mainly of small firms. They very often occupy only a fraction of the whole production process and therefore need subcontracting networks to compensate for their insufficiencies. The 96 largest Taiwanese business groups have only an average of 7.76 firms each, each with an average of 440 workers. These 7.76 firms are spread over an average of four industries without vertical integration (sources: Hamilton and Kao, Cheng-Shu, 1990:30 Table 2). Clearly, they diversify investment not in order to integrate the upper-, middle-, and lower- streams of production and consumer marketing, but to diffuse risks or exploit profit opportunities.

The Taiwanese business groups and big firms are comparatively less important, too. The total sales (not total value added) of the top 50 business groups currently account for only 27.1%

of Taiwanese GDP, while for the top five chaebol in South Korea, this figure is as high as 52.4% of GDP, and the top 50 chaebols combined account for 84.3%. The sales of Japan's top six inter-market groups account for 61.7% of GDP, and the top 16 groups together are responsible for 81.2% (Hamilton and Kao, Cheng-Shu, 1990:31, Table 3). Moreover, the dominance of big firms is declining with Taiwanese economic growth. Altogether, top 100 manufacturing firms had an ACR (aggregate concentration ratio, the total sales of the top 100 over whole market sales) between 21% and 25% before 1980, but that number declined to around 18% afterward (Chou, 1984). In addition, only 40% of the top 500 firms in Taiwan belong to business groups. The business groups are very often not the leading firms in their sectors, nor even the dominant forces in some industries. The firms in the business groups are not necessarily big firms, and many big companies want to stay single. There are no significant differences between business groups and single firms in Taiwan, except that the business groups diversify their investment across more sectors. Big firms and business groups are also highly dependent on many other firms, pursuing markets and profits together.

Where is the niche of subcontracting systems in Taiwan? Most industries without scale-economy and intensive capital investment are the possible domain of decentralized labor processes. These small investors usually produce final products or provide service to satisfy unstable consumer demand, as Piore predicted (1980). Following is a rough picture of the division of labor in Taiwan. The government provides raw materials, some up-stream products, and energy. Those large-batch standard products with manufacturing scale-economies (mostly intermediate products) belong to big companies. Small-batch and designed products (mostly consumer goods) are the niche of small and medium-sized firms (Hamilton, 1989:19-20). Big companies also produce final products, just as some small and medium-sized firms compete

successfully in the production of intermediate goods. However, this rough picture can help us understand that small and medium-sized firms and underground family businesses dig gold mines directly in the consumer market. Some grow bigger and finally diversify their investments to become big firms or business groups. Some fail and lose their capital.

In an economy with the world's highest ratio of export to GNP (more than 50% in the 1980's), small investors also dig gold mines in global markets (mostly consumer goods). The proportion of revenue generated by small and medium-sized manufacturing firms from exports was reported as 66.7% in 1980 and higher than 70% in the 80's, i.e., 74.8% in '81; 75.9% in '82; 73.3% in '83; 71.8% in '84; and 71.1% in '85 (Taiwan Bank, Economic Research Department, 1981-1986). Taiwan's top 500 firms, on the other hand, earned only 27.9% of their revenue by export in 1980, and approximately 35% during the 80's (China Credit Information Services, 1985). As a result, small and medium-sized firms exported 63.8%, 64%, 65%, 68.1%, 69.7%, and 63.4% of Taiwan's total national exports respectively in 1978, 1979, 1980, 1981, 1982, and 1983 (Ministry of Economic Affairs, Taiwan, 1986:40-43). In South Korea, the chaebols dominate most exports. In Taiwan, big companies contribute relatively little--the top 500 manufacturers produced less than 25% of total exports before 1980 and around 30% during the 80's (China Credit Information Services, 1985). They often produce intermediate goods and capital goods to support small and medium-sized firms which lead in the area of exports.

The service sector is another arena for small investments. In the manufacturing sectors, 1.2% of firms were big companies, which manufactured 52% of the total products in 1984 (Wu and Chou, 1987:64-65). But big firms failed to achieve such dominance in the service sectors. For example, in business, 0.3% were big firms, which accounted for only 16% of total sales in 1976. Nearly a decade later, in 1984, the biggest 1.6% of firms controlled only 20% of the market (Wu

and Chou, 1987:64-65). Big firms only dominated several service industries such as transportation, storage, and communications, which are protected for them by the government. All other areas are open sky for perfect competition among small investments. For instance, the wholesale industry had 26,462 firms each with an average of 5.5 workers in 1981. The retail industry had 209,028 firms, each with only 2.2 workers. In international trade, the import section had 4,442 firms with 12.3 workers per firm, and the export section had 16,157 firms with 8 workers per firm (Executive Yuan, Taiwan, 1981). The service sectors are also gold mines for Taiwanese small investors.

In the subcontracting system of the Taiwanese type, weak-tie relationships are mobilized by initial investors to build **extensive networks** (or *guanxi* in its broad definition, as Hamilton used), a terminology (for definition see Hamilton, 1989) that can be distinguished from "**family networks**". The "family" network defines common ownership of a firm or a business group and a clear boundary of control and management as well, while extensive networks define inter-firm forward and backward linkages, as well as horizontal subcontracting. Compared with legally or religiously defined morality, Confucianism as a guide for behavior emphasizes more the virtues needed to insure harmonious human relations. One's reputation very often is built on his/her loyalty to these relations. Chinese business people therefore seek long-term continuous interaction in extensive networks to access other resources, even though these relations generally serve only mutual interests. They secure their transactions by establishing weak-tie relationships that can be as reliable as the protection of the commercial laws.

Unlike South Korea, where vertical and horizontal integration overlap in chaebols, the Taiwanese web-like subcontracting system lacks production and market integration both vertically and horizontally. Firms or business groups for the most part have short production

processes and add comparatively little value, so they need to connect with other firms through production or distribution networks. These extensive networks are not as stable as "family" networks. Individual firms or business groups use extensive networks to access materials, capital, markets, and peripheral services such as insurance, transportation, and consultation. Taiwanese call relationships in the extensive networks *laochuku*--old patrons, or long-term partnerships, in business.

With the help of this web-like subcontracting system, Taiwan has more market opportunities for small firms than other economies with similar national products. Economist Chang Ping-Yao's study shows that during the period from 1961 to 1981, Taiwan's real economic growth rate was nearly 700%. Output per firm in 1981 was only three times that of 1961. New entries shared a large part of the expanding economic pie (Executive Yuan, Taiwan, 1981). During this twenty year period, 313,892 new principals (not including co-founders) appeared from within Taiwan's population of approximately 18 million people (i.e. for every 15 male adults, there was one new principal). South Korea's economy has similar national products and the same growth rate but twice the population. During the period of 1967 to 1969, gross entry flow was only 2,124 (Jones and Sakong, 1980). Taiwan, on the other hand, had an entry flow nearly 17 times that of South Korea during the same period.

Of Taiwan's population of 20 million people in 1988, there were 700,000 registered firms (i.e. approximately one registered firm principal per 8 male adults<sup>6</sup> (quoted from Hamilton, 1989:19). This number does not include small investors in the underground economy, where

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<sup>6</sup> Some bosses also operate more than one registered firms, and this should be reduced from the statistics.



roughly 256,000 paddlers could be found in 1993 (Executive Yuan, Taiwan, 1993). Economist Ch'ien Ch'uan-Deng estimated (Ch'ien, 1981:160-162, table 9 to table 11) that the underground economy accounts for approximately one-eighth to one-fourth of all Taiwanese businesses. This part of the economy has expanded with economic modernization. According to the statistics of the Finance Administration, about one-sixth of the factories in the manufacturing sectors were unregistered. This figure roughly confirms that one-fifth of GNP is a reasonable estimate of the Taiwanese underground economy. If those principals in the underground economy and co-founders of firms are taken into account, the statistics of firm principals is even more surprising. According to the 1987 Yearbook of Manpower Statistics for Taiwan (Executive Yuan, Taiwan, 1987:261), about 35% of the total labor force was self-employed (quoted from Shieh 1992:175). This is a reasonable estimate of Taiwanese small investors.

What is the strategy by which so many small investors can survive? The strategy in starting a small investment is to find a profit niche in the subcontracting system and then use a "family" network to set up an economic organization. If an initial investor can find enough extensive networks to obtain "forward" and "backward" linkages with other resources, then he/she is able to milk the cash cow. "Family" networks and extensive networks provide comfortable greenhouses, which allow new small businesses to survive and flourish.

Summarizing the picture of this web-like business structure, we can clearly delineate the Taiwanese-style of subcontracting system in which small investments are embedded. "Family" networks are the nodes in the picture, and they are linked together by many arcs -- extensive networks. The comparative lack of monopolized powers, as well as vertical integration, makes the entry of initial investments in Taiwan easier than in other countries. The inter-dependence among firms, including big firms and business groups, provides abundant market opportunities

for small investments.

#### **IV. NETWORK FINANCING AND INITIAL CAPITAL COLLECTION**

"Family" networks help provide the long-term trust needed by business organizations in Taiwan. Extensive networks help provide the business linkages that make entrance into small investments easy. Where is their initial capital? Personal relationship networks are once again the most important answer.

Even in developed countries with well-established monetary systems, liquidity constraints are common for initial investors. David S. Evans and Boyan Jovanovic show that, on average, initial investors in the U.S.A. can only invest 1.5 times the value of their assets. In developing countries without effective money intermediaries, this constraint is even more severe. Most consumers and small investors, therefore, need to appeal to the curb market for help.

Financial dualism is common in most developing countries, and also a preponderant characteristic of Taiwan's capital accumulation. The curb market, in contrast to the formal market, refers to the informal financial sector outside the bounds of government regulations, and includes private borrowing among families, among profit and non-profit organizations, within rotating credit associations, and from underground money lenders. Most Taiwanese economists agree with the opinion of Sheu Chia-Tung (1986) that the curb market exists because of the inefficiency of the monetary system. Unlike most developed Western countries where the stock market and bond market usually contribute more than half of the total capital formation, Taiwan has a comparatively unimportant stock market and bond market. In 1986, the Taiwanese stock market provided only 11.6% of capital in the formal financial market, while the bond market shared even less--4.7%. Savings institutions were also unimportant, since they constituted only 5.7% of formal finance. The lion's share of the formal market was from the banking system,

which provided 76.9% of financial resources. However, all but four professional banks and commercial banks in Taiwan, in 1986, are controlled by the government, and are therefore the tool of government policies. These policies include the artificial lowering of interest rates primarily to provide cheap capital for state enterprises and key industries, low interest rates, however, don't reflect the market equilibrium price, so the demand for money is much higher than its supply. While the government has a legitimate need to limit access to bank credit in order to balance demand and supply, it uses this control as a policy tool to subsidize chosen industries and enterprises.

## **TABLE I**

In Table I, we can see that the interest rate of the curb market is always about two times higher than that of the banks. This difference has even tended to increase with time. The banks first finance state enterprises, exports businesses, and key industries, and then, big companies and business groups. Small and medium-sized firms find it much harder to access this cheap capital. It is almost impossible for families and initial investors to borrow money from the banks. In addition, Taiwanese banks usually require more than 100% collateral in the form of property, which is too much for an initial investor. As Pao-An Lin observed:

It is not easy for an enterprise to get loans from banks to create the necessary capital to start a business, unless the bank itself obtains securities; in other words, loans essentially are mortgages and not credits (1991:150).

Furthermore, access to bank loans also requires personal relationships. This difficulty handicaps the chances of most ordinary people to obtain bank loans. Pao-An Lin stated this problem as follows:

Whenever a firm establishes a relationship with a bank, it is always accomplished through someone's introduction. ...Although not a sufficient condition for loans, these personal relations constitute a significant factor that cannot be overlooked. With such a personal guarantee, the bank acts on its practical interests, because the introducer guarantees the applicant's trustworthiness, thereby creating a condition of joint-liability(1991:150).

Since bank loans fall under the dominion of government policies, and other financial tools are not popular, Taiwanese entrepreneurs opt to start their business ventures primarily through the use of personal savings and private borrowing.

The curb market includes two parts -- network financing and underground banking. Trust is the pillar of network financing, which is a form of private borrowing based on personal relationships. The undersocialized approach ignores trust totally, as if borrowing/lending were an impersonalized process in an ideal modern bureaucracy. The over-socialized approach takes trust as the "generalized morality" that keeps a society in order. The embeddedness argument argues that personal relations and social interactions in relationship networks generate trust and discourage malfeasance. As Granovetter puts it: "...[S]ocial relations, rather than institutional arrangements or generalized morality, are mainly responsible for the production of trust in economic life"(Granovetter, 1985:491). Trust is built upon continuous interactions within relationship networks. That is why I call private lending and borrowing "network financing".

A bank loan is generally the first choice for small investors because of its low interest rate. However, it hardly can satisfy the needs of initial investors. In Taiwan, state enterprises satisfy more than 95% of their financial needs (only 1968 was an exception, 94.8%) from the monetary

institutions (Sheu, 1985:11, table 3). Big companies and business groups finance about 80% of their debts from the formal market. Among small and medium-sized firms, however, only five of 48 manufacturing industries financed less than 20% of their needs from informal financial resources. For 13 industries, this ratio was lower than one-third, and four were so poor that more than half of their financial needs were met by the curb market (Central Bank, Taiwan, Economic Research Department, 1978). Small and medium-sized firms in the service sectors go to the curb market more often than those in the manufacturing sectors because the export of manufactured products (averaging two-thirds of total revenue) is financed by special government programs. According to a survey by Chang Peng-Yao, only 42% of small and medium-sized firms satisfied their financial needs through monetary institutions. Among the rest, 71% appealed to network financing, 32% went to other curb markets (underground banks), 23% canceled their investment plans, and 13% downgraded the scale of production (Chang 1984:19).

Network financing is the second choice, since bank loans are often not accessible. Relationship networks are very helpful in reducing interest rates in the curb market, which can vary enormously. The interest rates of rotating credit associations depend on bargaining processes. According to the survey of Lin Kuang-Yu (1979), only 2% of fraud occurred in associations where all members knew each other; but 88% occurred where the interviewee knew less than half of the members. High returns are always accompanied by high risks. Therefore, raising capital from one's acquaintances is a comparatively cheap way to borrow. Underground banking is generally the least preferred method, because its interest rate is often compounded daily. This high-interest borrowing sometimes signals the bankruptcy of a firm, because it delivers a fatal blow to the investment.

Regardless of how large a Taiwanese enterprise finally becomes, network financing

always played the key role in its initial stages, except for a few mainland capitalists and transformed state enterprises back in the era of land-to-the-tiller. This phenomenon not only existed in the early stage of Taiwan's development but continues even today in some high-tech industries, such as personal computers, micro-processor design, and computer software.

The importance of the curb market for small investors can be seen in the following statistics:

## **TABLE II**

Table II shows that the curb market, including capital from families, non-profit, and profit organizations, provided anywhere from 45.57% to 27.01% of the loan used by domestic private companies. These figures show the importance of the underground financial markets in Taiwan's industrialization. This table also shows that most of this capital was borrowed from families and non-profit groups, and only very little was lent/borrowed among private companies. From 1964 to 1973, the importance of the curb market declined from 45.57% to 27.01% of the total loan resources for Taiwanese private companies. But after 1973, the curb market regained its importance. Its proportion of the total loan resources used by Taiwanese private companies rose from 27.01% to 38.5% and then stabilized at above 30% for 10 straight years. After the first energy crisis, Taiwan became a shining star among the NICs (newly industrialized countries) and started to accumulate the world's highest foreign exchange reserves. Soon after the second energy crisis, Taiwan became a mature industrial society. The Taiwanese financial curb market has maintained its important status throughout Taiwan's economic modernization. So, there is little evidence to support the idea that underground financing will eventually be replaced by modern monetary institutions in economic development.

Taking family borrowing for consumption and investment (an important source for initial

capital) into account, we can again see the importance of the curb markets. Statistics of Monetary Flow in the Taiwan Area, issued by the Central Bank, Taiwan, only listed the statistics of family borrowing from monetary institutions, private corporations, and Chinese-American development funds -- the data of borrowing/lending among families was missing. Sheu, Chia-Tung (1986) used Survey of Individual Income Distribution in Taiwan R.O.C. to estimate borrowing/lending among families. Analyses indicated that the curb market respectively accounted for 47.75%, 46.97%, 44.55%, and 46.98% of the total loan resources for Taiwanese families and private companies in 1975, 1976, 1977, and 1978, in contrast to 29.71%, 31.92%, 34.44%, and 37.30% in Table II, which represents only the borrowing of private companies (no families). Therefore, the curb market consistently provides about half of the loan needed by businesses in Taiwan. These statistics are sufficient to illustrate the importance of the curb market.

Can network financing totally be replaced by formal monetary institutions? Is it possible that people who save money in the curb market today will switch their savings to the formal sector after the reform of Taiwan's banking system in the early 90's? Since neo-classical economists thought that competition could eliminate the inefficiency of formal financial markets, which caused the prosperity of network financing, the reform of monopolized power of state-run banks should be the prescription. In my opinion, network financing will not disappear or lose its importance, even after Taiwan's financial industry becomes fully competitive, because its function is not simply to complement the inadequacies of the formal market but to satisfy those who seek to borrow money on the basis of personal relationships. Like real estate, job, salary, and personal credit records in America, relationship networks can be mobilized to obtain credit in Taiwan. Formal monetary institutions organized according to bureaucratic principles cannot provide credit based on personal trust. Any involvement of personal relationships in the sphere

of formal financial activities is treated as corruption or scandal in Taiwan, as it is in America. The curb market, by contrast, operates by network financing, and therefore satisfies those people who use personal relationships to obtain credit. It is highly plausible that personal relationships will support many initial investors in Taiwan even in a competitive financial system.

## **V. Conclusion**

In Taiwan, when an employee chooses to spin off into self-employment, his/her relationship networks are always an important factor affecting his/her decision. In addition to motivation of selecting entrance into small investments, what a Taiwanese spinning-off boss needs most are relationship networks. Networks mean many things in this social context. They are market opportunities; they are inputs; they are periphery business services; they are cheap labor forces; they are business organizations. Most importantly, they also are capital. New entries and small businesses in Taiwan are like the surf, in which each successful wave becomes bigger and pushes the Taiwanese economy forward.

This paper applies existing studies on the Taiwanese network economy to a specific area of economic activity, namely the initiating of small investments. In doing so, it examines one aspect of the island's institutional and structural environment, in which the phenomenon of selecting self-employment is embedded. This investigation also helps to further our understanding of the economic functions that relationship networks can perform. Furthermore, in Taiwan, these economic functions serve to create a comfortable greenhouse for Taiwanese small investments.

Can I generalize from this network factor to help better understand the choice of self-employment in other societies? Can I infer that network economies, as Hamilton has defined them, have a higher proportion of self-employment? Before doing so, there are several things



needed to be considered carefully:

(1) Personal relationships are not necessarily all helpful in supporting economic activities. It depends on various cultures. For example, Africa Americans, unlike the Chinese and Japanese in America, have an abundant social life, much of it based on political or other common interests, but their personal relationships are seldom mobilized to raise capital (Light 1972).

(2) Some outside factors may alter the economic functions played by personal relationships in promoting economic activity. For example, in Japan, which shares a common cultural heritage with China, business organizations before World War II had "family" features similar to Chinese business. But due to an historical incident--i.e. the occupation of American troops and the reorganization of business groups--today's Japanese network economy is built on shareholding networks, rather than "family" solidarity (Oru, Biggart and Hamilton 1987).

(3) Some other cultural, institutional and structural factors may place constraints on the influence of relationship networks, even though they function well in promoting economic activity. For example, South Korea has both "family-based" economic organizations and rotating credit associations, but due to certain institutional factors (particularly the intervention of the government), giant business groups dominate the economy and squeeze out the living space needed by small investors (Jones and Sakong 1980). In such a case, personal relationships are helpful for initiating small investments, but the institutional and structural environment offer very little in the way of market opportunities.

Is the influence of relationship networks a significant factor in the selection of self-employment in societies other than Taiwan? Perhaps. However, as stated above, other factors need to be considered before further conclusions can be drawn. Although personal relationship networks are an important consideration for Taiwanese in choosing to "spin-off," it

would be both premature and foolish to assume that this is true for all other economies.

Does a society with an abundance of economically well-functioning relationship networks inevitably produce a high level of self-employment? Not necessarily. The institutional and structural environment of Taiwan, based on relationship networks, makes entrance into small investments an easy affair, but it would be a mistake to infer from this that personal relationships by themselves adequately account for this phenomenon. Given that other cultural, institutional, structural, and political factors must be taken into account, it is difficult to conclude that relationship networks alone provide a sufficient condition for prosperous small investments.

The network perspective adopted by this paper does not exclude explanations offered by other approaches -- for example, those that stress personal attributes, cultural influence, industrial structures, or other factors. On the contrary, they are complementary and together provide a more accurate explanation of an individual's entrance decision to engage in small investment. Though it is better to avoid hasty generalizations, I nevertheless think it is safe to conclude that personal relationship networks play an important economic role in the process of initiating small investments in Taiwan.

**Table I The Comparison of Interest Rate Between  
The Curb Market and Banking System**

Year	interest rate of curb market  (mean) I	interest rate of banks  (mean) II	difference  III=I-II	ratio  IV=I/II
1961	33.51	17.70	15.81	1.89
1963	28.37	15.99	12.38	1.77
1965	23.76	14.57	9.19	1.63
1967	23.85	13.82	10.02	1.72
1969	25.42	13.58	11.84	1.87
1971	21.49	12.47	9.02	1.72
1973	22.45	12.05	10.40	1.86
1975	27.26	13.95	13.31	1.95
1977	26.61	11.54	15.07	2.31
1979	28.96	12.76	16.20	2.27
1981	30.96	17.15	13.81	1.81
1983	26.69	10.69	16.00	2.50

sources:Sheu, Chia-Tung, 1986:15

**Table II Domestic Resources of loan of Private Companies**

	formal markets	the curb market	profit groups	total	American fund & government
	family & non-profit				
	%	%	%	%	%
1964	49.16	43.46	2.11	45.57	5.28
1965	53.35	40.48	1.71	42.19	4.46
1966	52.36	42.68	1.32	44.00	3.65
1967	58.31	34.24	3.66	37.90	3.80
1968	62.65	27.49	6.23	33.71	3.63
1969	62.79	28.36	6.02	34.37	2.83
1970	61.13	31.02	5.77	36.80	2.08
1971	63.06	31.00	4.26	35.26	1.68
1972	67.47	27.27	4.10	31.30	1.23
1973	72.07	23.98	3.03	27.01	0.93
1974	69.30	28.23	1.61	29.83	0.86
1975	69.28	27.61	2.10	29.71	1.01
1976	66.85	29.40	2.52	31.92	1.24
1977	64.50	31.91	2.53	34.44	1.06
1978	62.13	35.23	2.07	37.30	0.57

1979	61.88	35.13	2.47	37.59	0.53
1980	62.02	34.99	2.61	37.60	0.38
1981	61.08	35.99	2.54	38.50	0.42
1982	60.50	37.00	2.50	39.50	
1984	67.20	31.60	1.10	32.80	
1985	62.30	33.10	4.60	37.70	

1987	67.30	31.10	1.50	32.60	0.10
1988	69.40	27.40	3.10	30.50	0.10
1989	67.40	29.10	3.25	32.35	0.25
1990	68.60	27.90	3.30	31.20	0.20

source:Central Bank, Taiwan, Economic Research Department, Statistics of Monetary Flow in the Taiwan Area

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