Moving Up: Industrial Upgrading, Social Networks, and Buyer-Driven Commodity Chains in East Asian Chinese Business Firms'

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Moving up in the global economy means upgrading a country's manufacturing base to higher value-added activities in the commodity chain. Participation in global commodity chains, even at the bottom, in the past has enabled firms to acquire the general knowledge as well as technical skills for upgrading. Aggregated across an economy, this has resulted in substantial economic development, at least in the case of the East Asian Newly Industrializing Economies. The past twenty years has seen a growth in the relative importance of buyer-driven global commodity chains, relative to the producer-driven chains that characterized the mid-twentieth century. Buyer-driven commodity chains, with their highly networked, flexible forms of organization, would especially seem to favor organizational learning and the industrial upgrading that it fosters. Moreover, the informal organization of buyer-driven commodity chains with their emphasis on trust and personal relationships would seem especially favorable to Chinese business firms, with their corresponding reliance on guanxi networks. This, in turn, should portend success for East and Southeast Asian countries in which the offshore Chinese business community plays a key role. Yet the ability to move into higher value-added economic activities may no longer be a certain route to economic success. In a world where the generation of wealth lies increasingly in design, marketing, and retailing, it is not clear that industrializing countries will be able to move up and out of labor-intensive manufacturing. This is because buyer-driven commodity chains are increasingly controlled by global retail conglomerates, making movement into higher value-added activities more difficult than before.

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INTRODUCTION AND OVERVIEW

For a country to move up in the global economy, it must upgrade its manufacturing base, rather than attempt to compete on the basis of low-cost labor. It is well understood that the developmental success of Taiwan, South Korea, Hong Kong, and Singapore has been due at least in part to their firms' ability to upgrade into higher value-added economic activities. The East Asian Newly Industrializing Economies began as production platforms for core country firms, which enabled them to eventually move into high-technology, high-value industrial production (Taiwan, South Korea, Singapore) or high-end services (Hong Kong). Such upward movement has resulted from a combination of factors, including firm characteristics, the social organization of industries, and government policy. "Industrial upgrading" is assumed to be a key mechanism of economic growth and an important strategy for national development.

The East Asian Newly Industrializing Economies have frequently been held up as models for other less developed countries to emulate, with other Southeast Asian nations such as Thailand, Malaysia, Vietnam, and Indonesia following in the footsteps of Hong Kong, Taiwan, South Korea, and Singapore (Kojima 1977; Yamazawa 1990; Inoue, Kohama and Urata 1993). These most recent industrializers are all countries in which Chinese entrepreneurs play key roles in their national business communities. Their connections with Chinese businessmen throughout East and Southeast Asia give them a special edge in coordinating production among networks of small- and medium-sized enterprises. As I will argue in this paper, in the post-Fordist flexible production characteristic of much economic activity today, Chinese firms have a special advantage, one which would seem to offer the possibility of upgrading throughout much of this region, resulting in national economic development.

Yet the ability to move into higher value-added economic activities may no longer be a sure-fire route to economic success. In a world where the generation of wealth lies increasingly in design, marketing, and retailing, it is not clear that industrializing countries will be able to move up and out of labor-intensive manufacturing, following the lead of the late East Asian industrializers. The increasing importance of buyer-driven commodity chains, controlled by global retail conglomerates, is making movement into higher value-added activities increasingly difficult.

"MOVING-UP" INTO HIGHER VALUE-ADDED ACTIVITIES: THE EXAMPLE OF HONG KONG

Capital in the world today is increasingly mobile, seeking out the best locations to maximize profits (Sassen 1988). Factories close in the older core regions of the world, only to open in the semi-periphery and periphery (Bluestone and Harrison 1982; Caporaso 1981). Some theorists have suggested that this process of globalization has even undermined the viability of mass-production industries (Cerny 1995; Oman 1994; Doner and Herschberg

1996). The changes taking place today represent the crossing of a "new industrial divide" (Piore and Sabel 1984) leading to the rise of post-Fordist, flexible production (Storper and Walker 1989; Scott 1988). Knowledge, technology, and analytic skills, along with the advantages of flexibility, are key to success in today's modern competitive industry. Malecki (1991, 202) claims that "increasingly, flexible, as opposed to rigid and stable, links allow firms to adjust their activities to uncertainty and to rapidly shifting conditions brought about by competitive and technology, as well as government regulation." To achieve success in flexible production systems, firms need access to information and innovation, and linkages to other firms (as suppliers, buyers, or production partners), Research and Development (R & D) organizations, and marketing outlets. The "competitive advantage of nations" will be held by those who control key technologies and production networks (Porter 1990).

It is important to recognize that industrialization has different impacts on economic development, depending on the specific linkages that connect manufacturing enterprises to global markets and to local, state, and transnational capital. While some peripheral countries remain primarily export platforms for low-technology, labor-intensive goods made by low-wage workers, industrial upgrading was the key to economic development in many of the Newly-Industrializing Economies of East Asia, as they shifted from manufacturing commodities like apparel, textiles, and footwear to higher value-added production. During much of the past two decades, regional growth rates averaged approximately 7 percent a year - a rate which is extraordinary by world standards (Numazaki 1998). A combination of state policies, private sector activities, and global economic conditions came together to produce a period of unprecedented growth in East Asia. This was true despite escalating wages, labor shortages, and currency appreciation threatening competitiveness in the very labor-intensive industries upon which they built their economic growth. The success of this region was due in part to the fact that their firms upgraded into higher value-added activities, shifting production to lower-wage areas.

Industrial upgrading can be defined as "the addition of knowledge with the potential of enhancing the profit-generating capability of a firm or an economy" (Geretti and Tam 1998, 6). It involves raising product quality, upgrading technology, increasing efficiency, and learning new skills, thereby enabling firms to compete in sophisticated industry segments where profit levels are high enough to support high wages. Industrial upgrading requires firms to find ways to design, market, and retail their own products in global markets, breaking through the barriers to market entry that are imposed by companies who possess design expertise, and thereby have their own brand-name labels and the ability to manipulate consumer tastes through advertising (Korzeniewicz 1994). In the 1950s and 1960s, East Asian governments, with financial and technical assistance from U.S. aid programs, encouraged the growth and expansion of textile and garment production (Geretti 1991; Bonacich and Waller 1994; Bonacich and Appelbaum, forthcoming). More

¹ Geretti and Tam (1998) characterize industrial upgrading in terms of *product shift* (from simple to complex goods of the same type), *increasingly sophisticated economic activities* (from assembly through specification manufacturing, original brand-name manufacturing, and eventually original design), *international provision* (from manufacturing finished items to higher value-added activities), and *international shift* (from labor-intensive to capital- and technology-intensive activities).

recently, Hong Kong, South Korea, and other more developed East Asian Newly Industrializing Economies have upgraded into the role of apparel sourcing and even design, while China and other low-wage countries have become prime sources of apparel production.

Hong Kong's rise as an apparel manufacturing power is illustrative of the strengths - and pitfalls of "moving up" into higher value-added activities. Hong Kong's economic development began with Mao's victories in China in the immediate post-war period. The flight of industrialists from China brought capital, technology, and considerable know-how to Hong Kong. Shanghaiese apparel manufacturers sparked the Hong Kong clothing industry, opening the first cotton spinning mill in 1947. Apparel manufacturing peaked in the mid-1980s, with more than 10,000 firms employing some 300,000 workers. By 1994, the number of workers (137,000) was less than half the level of only a decade earlier (Hong Kong Industry Department 1991; Lau and Chan 1994; DeCoster 1996). Hong Kong's role in global apparel production has changed; it is now a command center for global garment sourcing, design, and retailing, with much of its production occurring in China. Hong Kong brands sold throughout the world include Giordano, with 500 retail outlets in Asia, and Episode, controlled by the Fang brothers, who began by making clothing for Liz Claiborne twenty years ago (Gereffi and Tam 1998).

Consider the example of one Chinese family conglomerate, the Wing-Tai family of publicly - and privately-held firms spanning East Asia. Wing-Tai was founded in 1955 by Cheng Yik Hung, who fled China and started the company in Hong Kong to make jeans for the British market (Kingman 1992). Wing-Tai opened a Singapore office in 1962, when a quota was imposed on Hong Kong, and a Malaysia office in 1985. The years 1960s-1970s witnessed an enormous growth in the demand for apparel, exceeding Hong Kong's capacity to produce. Wing-Tai saw its next step as getting into wholesaling and distribution as well as manufacturing. By 1993 Wing-Tai had acquired controlling ownership of a number of apparel manufacturing companies, including Polly Peck in London, Baxter International in New York City, and Styl-land/PCH in Orange County, California. With its holdings encompassing apparel manufacturing, design, wholesaling, sourcing, and even real estate development, Wing-Tai (1991) aptly described itself as "a diversified multi-national corporation with the confidence, ability, and determination to broaden the scope of its operations still further." One of Wing-Tai's holdings is the Unimix Corporation, which was making cheap shirts for jobbers on London's Commercial Street when Wing-Tai acquired it in 1987. By the mid-1990s, Unimix had become one of Hong Kong's largest factories under a single roof, its 3,000 workers now making pricey shirts for a who's who of upscale European and North American labels (Tsang 1991; Tsang 1993). Yet even this upgrading strategy did not prove cost-effective. Hong

¹ Hong Kong's chief manufacturing industries are textile, apparel, electronics, household electrical appliances, plastics, and metal products. In 1990 these industries accounted for 21 percent of manufacturing employment and 73 percent of domestic exports, valued at U.S.\$21 billion (Lau and Chan 1994: 109). Unimix has not entirely abandoned its lower-end buyers. It maintains its offshore factories in Malaysia, China, Burma, and other low wage countries, seeking a "balance of high-volume low-end products while at the same time upgrading to higher floors of department stores" (Tsang 1993). Its client list in the mid 1990's included Calvin Klein, Chelsey Group, Home Brothers (U.K.), Burton Group, Structure, British Home Stores, Marks and Spencer, Hugo Boss, Eddie Bauer, Brooks Brothers, Yves St. Laurent, Perry Ellis, Nino Cerrutti, The Limited, and The Gap.

Kong's high labor costs and rents led Wing-Tai to move much of Unimix's sewing operations across the border to Guangdong province, converting former factory floor space into high-priced office rentals. Today, Unimix building tenants include the headquarters of a number of Wing-Tai's publicly- and privately-held multinational businesses. Despite numerous and complex dealings with European, North American, and Japanese companies, Wing-Tai remains very much a family business, with power residing in the three U.S.-educated sons of the founders.¹ Wing-Tai's global operations are maintained through a tightly coordinated network of familial and personal contacts.

Hong Kong's growing prosperity has created higher paying job opportunities in service-oriented industries for the daughters of the women who once worked in its low-wage garment factories, who are today less willing to work for apparel-industry wages (Tsang 1991; Lui 1991; Ng 1991; Ma 1991; Sung 1991; Leung 1991b; Cheng 1991). Yet although Hong Kong has moved from manufacturing into services, this has not meant technological upgrading in manufacturing. In fact, by the mid-1990s, manufacturing contributed less than 10 percent to Hong Kong's GDP, signaling the colony's rapid transition to a service economy. Moreover, there has been very little public or private investment in research and development. Instead, Hong Kong firms have pursued a strategy of relocating their factories elsewhere in Asia (and particularly in China), where low wages compensate for a failure to achieve productivity increase. Absent state incentives for industrial upgrading, or even state-led efforts to encourage technology transfer from transnational corporations, have led Hong Kong firms to focus instead on services, coordination of production, marketing, and product development. It remains to be seen whether Hong Kong can sustain its growth without developing a high technology industrial base.

FLEXIBLE PRODUCTION: CHINESE BUSINESS CULTURE AND EAST ASIAN DEVELOPMENT

Richard Whitley has argued that different cultures produce different types of business systems, "particular forms of economic organization that have become established and reproduced in certain institutional contexts - local, regional, national, or international" (Whitley 1996, 412). Compared to Western business systems, Asian business systems reflect a much higher commitment to personal relationships and trust, relative to principles of formal-legal rational authority (Whitley 1992, 1996; Appelbaum 1998; Cheng 1993; Chan 1993; Walton 1993; Birnbaum 1993). Chinese businesses in particular are characterized by a heavy degree of reliance on informal personal networks and connections. Obligations with suppliers and other contractors tend to be short-term, unless they are related through family connections or community ties. As a consequence, risk is more likely to be transferred to subcontractors and partners.

Integration tends to be horizontal and informal, rather than vertical and contractual, with horizontal coordination based on short-term needs rather than long-term obligations. Informal alliances between firms in these business groups allow the network as a whole,

¹ The Cheng Brothers hold MBA degrees from Columbia, Wisconsin, and Chicago (Cheng 1991).

rather than individual firms, to organize and manage a large portion of the production and distribution process. Rather than using vertical integration to solve problems of opportunism and information flow, these problems are managed through interfirm trust and communication. Firms can, therefore, remain small and more responsive to quickly changing market conditions, while at the same time gaining access to the large capital, resource, and information pools of the business group. There is evidence that small- and medium-sized enterprises may be better able to respond flexibly to changing market conditions than large ones, particularly if they are informally networked into strong business groupings (Doner and Hershberg 1996). This is one of the most important organizational features of Chinese firms: they are organized informally through business groups, rather than through formalized relationships (Hamilton and Kao 1990; Smart and Smart 1991; Lui 1998; Whitley 1992, 1996). The organizational style of Chinese business firms has an affinity with the increasingly common flexible forms of industrial organization, giving Chinese businesses a unique advantage in the global economy today.

There is a large body of scholarship which argues that personal relationships, *guanxi*, has long been a fundamental underpinning of Chinese business practices, which moreover helps to explain the success of Chinese merchants, traders, and businessmen throughout East and Southeast Asia (Bian 1994; Chan and Chiang 1994; DeGlopper 1995; Hamilton and Feenstra 1997; Hamilton and Kao 1990; Hamilton 1991, 1996, 1998; Mackie 1992; Orr, Biggart, and Hamilton 1991; Redding 1990; Tong and Yong 1998; Yan 1996; Yang 1994). In particular, the institutionalized practice of *guanxi* the use of such relationships to gain advantage undergirds much of the Chinese business culture.⁵ The "art of *guanxi*" involves "the exchange of gifts, favors, and banquets; the cultivation of personal relationships and networks of mutual dependence; and the manufacturing of obligation and indebtedness" (Yang 1994, 6).⁶ It thus carries the sense of social connections based on mutual interest and benefit: "Once *guanxi* is established between two people, each can ask a favor of the other with the expectation that the debt incurred will be repaid sometime in the future" (Yang 1994, 1-2). "Indeed, it can be said that implicit in the very act of accepting [a gift, banquet, or favor] is an agreement in trust to repay in another form at a later date" (Yang 1994, 142).

Although some scholars have argued that the importance of *guanxi* has diminished in the face of China's increasing incorporation in a global marketplace,⁷ it can be argued

⁵ Mayfair Yang, whose book *Gifts, Favors, and Banquets* (1994) constitutes one of the most exhaustive studies of *guanxi* in contemporary China, distinguishes *guanxi* (personal connections) from *guanxi xie* (the practice of *guanxi* to gain advantage) -- what Guthrie (1998, 262) refers to as *guanxi* practice.

⁶ Related concepts include *ganqing* (emotional feelings) and *renqing* (personal ties of affect and obligation); see Yang (1994) for further discussion.

⁷ Douglas Guthrie (1998, forthcoming), for example, argues that the Chinese government has increasingly moved to foster rational-legal practices. Laws such as the Labor Law, the National Compensation Law, and the Company Law are all intended to curb *guanxi*; large industrial enterprises which engage in bribery are subject to punishment. Moreover, Guthrie argues that increasingly competitive global markets render decision-making on the basis of personal relationships bad business strategy (Guthrie 1998, forthcoming). In a similar vein, Yves Dezalay, Bryant Garth, and Pierre Bourdieu (1998) argue that multinational law and business firms provide an important institutional framework for generating universalistic, over-particularistic relationships; the social and cultural capital acquired in such settings makes them important training grounds for a common global culture around the rule of law. For an opposing viewpoint, see Appelbaum, 1998.

that the opposite is true. As Tai-lok Lui (1998, 337) notes,

What were once considered traditional, particularistic, and inefficient, such as small firms, craft production, and trust-based exchanges, are now conceived as 'new' economic organizations and exchanges which can help entrepreneurs and their local and national economies to cope with a business environment of constant flux and uncertainty.

In the absence of vertically-integrated firms and a strong state role in enforcing inter-firm contracts, informal social networks provide a principal means of reducing transaction costs (Landa 1994, 1998). Stated succinctly, "trust makes network organizations viable" (Lui 1998, 338).

This is not to argue that business relationships based largely on trust are free from problems: nepotism, favoritism, graft and corruption are the oft-cited downsides of doing business where *guanxi* is all-important. The Asian financial crisis of 1997-98 brought these problems to the fore, leading the very characteristics which had been lauded as key to the "East Asian miracle" to be denounced as causing its downfall. As Hamilton (1999, 3) wryly observes, "The *guanxi*" relationships that commentators had only a short time earlier praised so highly were now vilified. *Guanxi* suddenly became cronyism, and the economies where these relationships occurred were now examples of "crony capitalism."

In fact, there is long-standing literature arguing that the Chinese firms and advanced capitalism are antithetical (Yoshihara 1988; Hwang 1984; Redding 1990; Fukuyama 1995), thanks to such ostensive traits as "family ownership, patriarchal authority, problems with succession, lack of professional management, weak employee loyalty, and relative lack of research and development" (Hamilton 1999, 4). Yet in fact, the Chinese-based East Asian economies weathered the "Asian flu" relatively well, and, as of this writing (fall 1999), have recovered significantly. To help safeguard against problems of corruption, Chinese businessmen are extremely cautious in establishing trustworthiness with the people they deal with (Lui 1998, 345). Trustworthiness is established through prior performance, as well as restricting business relationships to one's own social circle - family and kinship group, people from one's ethnic or dialect group (i.e., place of origin), and close friends (Lui 1998, 346). Even among those within what Lui (1998, 347) calls the "*guanxi* boundary," trust cannot be taken for granted but must be continually demonstrated and earned, proven over a history of personalized business transactions. Trust is a form of social capital, certified by one's community: "The business transaction is no longer a private exchange carried out in an anonymous marketplace, but rather a social event which is made visible and the participating agents are held responsible for the actual handling of the event in a proper way" (Lui 1998, 348).

Janet Tai Landa's (1981, 1994, 1998) theory of ethnic trading networks argues that

* This is hardly a new idea, nor limited to the study of Chinese business organizations: Nobel Prize-winning economist Kenneth Arrow argued a quarter century ago that "trust is an important lubricant of a social system. It is extremely efficient; it saves a lot of trouble to have a fair degree of reliance on other people's word." (Arrow 1974, 23; Lui 1998, 345).

the existence of an ethnically homogeneous middleman group (EHMG) is a principal means of introducing certainty into economic transactions, as is evidenced by the operation of Chinese business groups:

The EHMG thus reveals itself to be a low-cost club-like institutional arrangement, serving as an alternative to contract law and the vertically integrated firm, which emerged to economize on contract enforcement and information costs in an environment where the legal infrastructure was not well-developed (Landa 1981; reproduced in Landa 1994, 101-102).

In her research on Hokkien-Chinese rubber traders in Singapore and West Malaysia, Landa found that although many factors were obviously important, trust fell off with social distance: it was generally highest for near kinsmen from one's immediate family, diminishing as one moved out to distant kinsmen from one's extended family, clansmen, fellow villagers, fellow Hokkiens, non-Hokkien Chinese, and finally non-Chinese. She concludes that:

At the major ethnic boundary, separating Chinese from non-Chinese, there is a sharp kink in transaction costs; this sharp kink in transaction costs is the major reason why Chinese middlemen belong to an ethnically homogenous group (Landa 1998, 10).

Chinese business groups are comprised of firms formally independent of one another but closely affiliated and tied by informal networks, equity ties, and family relationships (Hamilton and Kao 1990; Orr, Biggart, and Hamilton 1992; Gerlach 1992; Granovetter 1993).⁹ Informal alliances between firms in these large business groups allow the network as a whole, rather than individual firms, to organize and manage a large portion of the commodity chain. Rather than using vertical integration to solve problems of opportunism and information flow, these problems are managed through interfirm trust and communication. Firms can, therefore, remain small and more responsive to quickly changing market conditions, while at the same time gaining access to the large capital, resource, and information pools of the business group.

The growing economic power of the overseas Chinese business community has greatly

⁹ The importance of *guanxi* in linking an offshore Chinese business community long predates the modern era. In a recent work, Giovanni Arrighi (1996), drawing on the writings of historians Takeshi Hamashita (1994), Heita Kawakatsu (1986), and Carl Trocki (1997), argues that for at least a thousand years East Asia was integrated through a "tribute-trade" system unified by an extensive China-centered trading network - one in which it was legitimate to view tribute exchange as a commercial transaction (Hamashita 1994). This system was notable for its flexibility, its looseness, and its more or less segmented structure [which extended] into a wide range of ventures all over the world held together with little more than handshakes and relationships between brothers-in-law (Trocki 1997, 81). It resulted in the growth of an overseas Chinese business community which linked the regional economies to one another, in growing conflict with the state-centered tribute system that originally spawned it. Eventually, the tribute system withered away, weakened both by regional nationalisms and - by the end of the 19th century - economic encroachment by the expanding Europe-centered world economy. But the overseas Chinese business communities remained a powerful source of regional economic integration, providing an infrastructure for today's East Asian economic expansion.

accelerated with the incorporation of China into the world economy. Led by businessmen from Hong Kong and China, overseas Chinese entrepreneurs are the major investors in China,²⁰ and are surpassed only by Japan in many Southeast Asian countries (Naughton 1997; Chung 1997). As Hsing (1998, 152) points out,

An estimated 51 million overseas Chinese in Asia created U.S.\$450 billion gross national product in 1990 (East Asia Analytical Unit 1995). Worldwide, the overseas Chinese probably hold liquid assets (not including securities) worth \$1.5-2 trillion (*The Economist* 1992). The resources that the overseas Chinese command, and the transnational networks they create, potentially provide the technologies, information, and finance tools that China needs.

Arrighi (1994, 9-10) concludes that overseas Chinese entrepreneurs are "emerging as a leading agency of processes of capital accumulation in East Asia." Their networks provide a significant advantage to the East Asian countries with significant Chinese populations, as stated by Lee Kuan Yew, former President of Singapore, at the 1993 World Chinese Entrepreneur's Convention in Hong Kong,

"What ethnic Chinese from Hong Kong, Macau, and Taiwan did was to demonstrate to a skeptical world the *guanxi* connections through the same language and culture can make up for a lack in the rule of law and transparency in rules and regulations" (Ong 1997, 181).

Or, in the even more triumphalist language of the Singapore Chinese Chamber of Commerce and Industry (Nonini and Ong 1997, 4),

Today, there are some twenty-five million ethnic Chinese outside of China, the bulk of whom are concentrated around the fast-growing Pacific Rim. Individually and collectively, they are well-placed to play a key role in realizing the potential and promise of globalization, particularly in making the Pacific Century come true.

In my own research on the global apparel industry, apparel executives in Hong Kong and Los Angeles consistently assert that Chinese entrepreneurs (whether in Los Angeles, Hong Kong, Taiwan, or elsewhere) are in a better position to source production in Asia than anyone else, largely because of their ability to draw on *guanxi* networks. The ability of European and North American firms to operate successfully in East Asia depends on their ability to work through such Chinese networks (Cheng 1993; Chan 1993; Walton 1993). In one survey of Los Angeles' 184 largest apparel manufacturers, for example, it was found that three-quarters of Chinese-owned apparel manufacturing firms produced in Asia - compared with only a quarter of all firms owned by Koreans, and almost no firms owned by Latinos, who tended to contract for sewing in Los Angeles (Bonacich and Appelbaum, forthcoming).

I have found numerous examples of the central role of personal connections, in an

²⁰ Between 1979 and 1992, Hong Kong accounted for 61.0 percent of all contracted foreign investment in China. Taiwan was second, at 2.7 percent, exceeding the United States (7.3 percent) and Japan (5.8 percent). (Hsing 1998, Table 1-8)

industry where orders take place on a handshake. As Jim Cunningham, The Gap's Vice President for Offshore Sourcing explained, with the exception of Korea and Japan, "Every country's apparel industry is dominated by ethnic Chinese, the merchants of past centuries, who live in Chinatowns the world over branches of families from the same province. In this business, things take place on trust" (Cunningham 1991). Even the largest European or North American retailers and manufacturers cannot ordinarily access Chinese factories directly: typically, they must work through Hong Kong or Taiwanese intermediaries (Walton 1993).

In sum, in a world in which flexible production frequently relies on informal relationships and personal contacts, the overseas Chinese business community is well-situated to play a pivotal role. To better understand how this works – as well as some of the constraints on upgrading that firms are likely to face – it is useful to examine the changing nature of global commodity chains, the principal networks that link firms together in the global economy.

GLOBAL COMMODITY CHAINS AND INDUSTRIAL UPGRADING

The notion of an increasingly integrated global economy – where countries come to occupy distinct export niches and where industrial upgrading is a key strategy – can be fruitfully understood through the notion of global commodity chains, "network[s] of labor and production processes whose end result is a finished commodity" (Hopkins and Wallerstein 1986, 159). Global commodity chains consist of a number of operations that comprise pivotal points in the production process: raw materials supply, production, export, and marketing, taking us "across the entire spectrum of activities in the world-economy" (Gereffi 1992, 94). They have four main dimensions: an *input-output structure* comprised of a set of products and services linked together in a sequence of value-adding economic activities; a *territoriality* that identifies the geographical dispersion or concentration of raw material, production, export, and marketing networks; a *governance structure* of power and authority relationships that determines how financial, material, and human resources, as well as economic surplus, are allocated and flow within a chain; and an *institutional setting* – the local, national, and international conditions that shape its activities (Gereffi and Tam 1998).

Global inequality, development, and underdevelopment of countries as a whole are defined by the differing positions countries occupy in these multiple networks of worldwide economic production and exchange. Differential profit and surplus are generated at various nodes along commodity chains. These patterns are not entirely uniform, and the highest profits and largest surplus extraction are not always located at the beginning, middle or end of the commodity chain, but vary according to particular circumstances and specific commodities. Commodity chains are especially important because they determine the relationship between particular firms and global production processes.

A firm's role in a global commodity chain permits it to learn new activities, thereby providing opportunities for upgrading. To the extent to which firms that specialize in

assembly are embedded in global networks that encompass design, marketing and sales as well as production, they are more likely to acquire the organizational and technological know-how that is necessary in order to move from assembly into higher value-added activities. Drawing on the organizational literature, Gereffi and Tam (1998, 11) distinguish between three kinds of economic relationships: *market* (arms-length, governed by supply and demand), *hierarchy* ("vertical," governed by authoritarian relationships), and *network* (loose but stable relationships, governed by trust, reciprocity, and openness). They argue that networked relationships are more conducive to organizational learning than market or hierarchical ones, because they are more likely to lead to open sharing of organizational practices, technological understanding, and other forms of knowledge that could enable a firm to upgrade.¹¹

In terms of the present discussion, networked economic relationships are typical of Chinese business firms, which might, therefore, be expected to have an advantage when it comes to organizational learning and consequently industrial upgrading. For example, as mentioned earlier, in the 1970s Hong Kong's Fang brothers began as makers of apparel for Liz Claiborne. Through their manufacturing activities they learned how to organize production, manage quotas, and eventually provide full-package production by sourcing suppliers throughout Asia. Eventually, they also acquired the know-how to engage in design and retailing as well, and currently market their own brand of women's clothing, Episode, through stores in 26 countries throughout the world (Gereffi and Tam 1998). The ability to provide full-package production has been key to the success of Hong Kong, Taiwanese, and South Korean apparel firms in penetrating North American, European, and Japanese apparel markets. Apparel suppliers in these countries had to acquire the know-how to do everything, since the core country retailers and manufacturers who used their services did not know how to make garments in low-wage countries. During the course of providing such full-package services, the suppliers also learned how to design and market their own lines of apparel. China, Mexico, and Turkey are now acquiring full-package capabilities, and may be expected to move up the commodity chain into higher value-added activities as well (Gereffi and Tam 1998). In fact, as post-NAFTA Mexico replaces Hong Kong, Taiwan, and China as the principal exporter of textile and apparel to the United States,¹² Taiwanese and mainland Chinese textile

¹¹ Gereffi and Tam (1998) further distinguish organizational "learning by doing" (direct experience) from "learning by monitoring" (observation and imitation), and argue that such knowledge transfer is a key basis for generating the rents (above-average profits) that enable a firm to obtain the competitive advantages that enable it to upgrade. While their analysis of organizational learning and rent-generation provides important insights into the processes by which industrial upgrading can occur, I do not agree with their conclusion that "the crucial constraint on a country's development is not the dependence on a rent-producing country, but the requirement of learning-by-doing or the ability to innovate. Whether a country can make good use of the opportunity for learning-by-doing is also contingent on the country" (28). However important "learning by doing" may be in explaining a firm's ability to upgrade (and, by aggregation, a country's ability to economically develop), it clearly is not the sole factor. Relationships of dependency, the result of unequal economic and political power, clearly remain important in explaining mobility within the world-system.

¹² By 1998, U.S. apparel and textile imports from Mexico had grown to \$7.9 billion, substantially larger than imports from Hong Kong's \$4.7 billion, and approximating China's \$8.1 billion. Mexico was exceeded only by the combined imports from all Caribbean Basin Initiative (CBI) nations (\$8.5 billion). If one looks only at apparel, imports from Mexico in 1998 reached \$6.7 billion, surpassing those of China (\$5.9 billion), Hong Kong (\$1.5 billion), and the CBI nations (\$1.2 billion) (OTEXA 1999).

and apparel firms are likely to become increasingly involved in joint ventures with Mexican firms, enabling the Asian firms to enter the United States through NAFTA's back door. The Asian companies provide the know-how for engaging in full-package production; the Mexican firms, for the moment, specialize in assembly work.

To better understand the prospects for industrial upgrading as a means of mobility in the world economy today, it is useful to distinguish between two different types of global commodity chains - those that are producer-driven, and those that are buyer-driven (Gereffi 1994).

PRODUCER-DRIVEN COMMODITY CHAINS: A DIFFICULT ROUTE TO UPGRADING

Producer-driven commodity chains are found in those industries "in which large integrated industrial enterprises play the central role in controlling the production system (including its forward and backward linkages)" such as automobiles, computers, aircraft, and electrical machinery (Appelbaum and Gereffi 1994, 44). The structure is most characteristic of capital- and technology- intensive industries dominated by transnational corporations, where "large integrated industrial enterprises play the central role in controlling the production system" (Appelbaum and Gereffi 1994, 44) and profits derive primarily from "scale, volume, and technological advances" (Gereffi 1994, 99). The principal profits in producer-driven commodity chains are typically associated with the core manufacturing stages, and are derived from economies of scale and scope, production volume, and advanced technology. They include such activities as research and development, product conception, and product design, all activities associated with production rather than consumption.

The barriers to entry in producer-driven commodity chains are likely to be high, making this a difficult path for a country unless it has achieved a fairly high level of economic development. Barriers include costly raw materials, technologies, skilled labor, and capital equipment, not to mention the internalization of risks in a production process where much of the commodity chain is located within a single firm. As a result, a handful of producers dominate their retailers, and often control them outright, as in the sales of automobile through tightly-controlled franchised dealerships. In South Korea, Singapore, and Taiwan, industrial upgrading has historically meant moving into producer-driven chains only when a certain level of development is achieved - and then usually with considerable governmental support (Henderson and Appelbaum 1992).

BUYER-DRIVEN COMMODITY CHAINS: A PATH TO UPGRADING AND DEVELOPMENT?

Buyer-driven commodity chains are found in those industries where "large retailers,

brand-named marketers, and trading companies play the pivotal role in setting up decentralized production networks in a wide range of [low-wage] exporting countries" (Appelbaum and Gereffi 1994, 44). Historically, buyer-driven commodity chains have predominated in labor-intensive, consumer goods industries such as garments, footwear, toys, and consumer electronics. Beginning in the 1970s, buyer-driven commodity chains have become increasingly important in global production; today they predominate in the "flexible" forms of post-Fordist production that play a major role in the world economy.

Since labor-intensive buyer-driven commodity chains have relatively low start-up costs, barriers to entry are few. This results in a large number of producers in competition with one another, who are dominated by much more wealthy and powerful retailers. The principal profits are not generated at the production end of buyer-driven commodity chains, but rather at the retail end. Profits derive from "unique combinations of high value research, design, sales, after-sales services, marketing, and financial services that allow the buyers and branded merchandisers to act as strategic brokers in linking overseas factories and traders with evolving product niches in their main consumer markets" (Gereffi 1994, 99). In other words, the highest value-added activities are often more closely associated with consumption than with production. Because constant design changes for customized markets are the primary source of competitive advantage, products must become increasingly aestheticized. Emphasizing elements of style, fad, and mystique underscores the contribution of design to the value of the product. Design-intensive activities thus increase their proportion of value compared to manufacture and assembly activities (Harvey 1989; Scott 1988; Lash and Urry 1994).

While some peripheral countries are primarily export platforms for simple, low-technology, labor-intensive goods made by low-wage unskilled workers, others have engaged in industrial upgrading, shifting from commodities like textiles, apparel and footwear to higher value-added, technologically sophisticated production requiring a strong and well-integrated industrial base (Gereffi 1992). This pattern may involve the continuous technological improvement of production processes, but it may also involve the creation of new products, and new services, in general engaging in higher value-added economic activities. High-quality production, honed by discerning local markets and fueled by the selling of design and style, can assure global competitiveness even in an era of strong wage competition. Competitiveness in quality and image, rather than in labor costs, is clearly the key to longer-term global success. Since the profits in buyer-driven global commodity chains lie in the design, marketing, and retailing phases of the commodity chain rather than in production itself (Appelbaum and Gereffi 1994), it would seem especially important for exporting countries to emphasize these high end activities over cost-competitive manufacturing. Firms that initially specialize in specification contracting may eventually move to their own designing and retailing through the "organizational learning" resulting from participation in the commodity chain (Gereffi and Tam 1998).

THE RETAIL REVOLUTION AND INDUSTRIAL UPGRADING

Buyer-driven commodity chains are typically associated with the flexible production characteristic of Chinese business systems. This might lead one to conclude that in an economic world where informal networks replace formal bureaucratic structures, the Chinese business culture will thrive, enabling the industrializing economies of East and Southeast Asia to experience a degree of developmental success. Gary Hamilton (1998, 2), in an unpublished paper, goes so far as to argue that the 1998-99 "Asian flu" was partly the result of a global shift in production from vertically-integrated mass production to horizontally-integrated "demand-responsive reflexive manufacturing systems" - a shift which in the long run strongly favors Chinese (as opposed to Korean and Japanese) manufacturing methods. In other words, the global shift from producer- to buyer-driven commodity chains favors Chinese businesses, and by implication those economies in which such business systems dominate.

Yet if the good news is that the movement towards buyer-driven commodity chains favors the flexible forms of production that characterize Chinese business networks, there is some bad news to go along with it: the retail consolidation of the past decade has made it increasingly difficult to move up the commodity chain into higher value-added activities such as design and marketing. Even manufacturers are being squeezed out of the buyer-driven commodity chain. Retailing is no longer controlled by manufacturers; it is now clearly driven by large retail buyers (Jones 1993).¹¹ By the next millennium, according to industry analysts Kurt Salmon Associates (KSA 1990), retailers who are not solidly entrenched in one of three niches - high service level, low price values, or unique merchandise - are not likely to survive. In a world of buyer-driven commodity chains dominated by a handful of global retail corporations, it becomes harder to move up the commodity chain to where the principal profits lie.

In the U.S. apparel industry, for example, private label production now accounts for as much as a third of all retailing, with many manufacturers reduced to sourcing production for giant retailers. Between 1970 and 1990, the number of shopping centers in the United States grew from 10,000 to 37,000, as mass merchandisers and department store chains, once the major powers in the industry, found themselves increasingly squeezed by discounters offering lower prices for quality goods, and specialty stores offering a more clearly defined range of products coupled with a high level of service (Steinberg 1996, 3). As a consequence of such intense competition and excess capacity, a large number of well-publicized mergers and leveraged buyouts occurred in the late 1980s, as retailing consolidated into a shrinking number of giants. During the early 1990s, many of these newly-consolidated retail conglomerates filed for bankruptcy protection, squeezed between the debt they had acquired to finance their mergers, and the retail recession. This resulted in still further consolidation, as a handful of giants - many of them discounters - came to dominate the U.S. retail landscape. Wal-Mart, for example,

¹¹ See also Gereffi, 1994, and Appelbaum and Gereffi, 1991.

is the world's largest retailer, with operations in Canada, Latin America, Asia, and Europe as well as the United States. With 1999 sales of \$138 billion (17 percent higher than 1998) and a workforce of 825,000, Wal-Mart overwhelms the retail landscape, accounting for more retail sales than its three nearest rivals combined (Hoovers 1999a).¹¹ In fact, the four largest U.S. retailers accounted for more than \$244 billion in sales, approximately two-thirds the U.S. total.

In sum, the shift from producer-driven to buyer-driven global commodity chains has been accompanied by an enormous concentration of power at the top of the chain. Large retailers are able to garner an increasing share of the surplus at each level below them, while impeding progressive movement into higher value-added activities. What was once a possible avenue for upward mobility through industrial upgrading now appears to be a major bottleneck. It may still be relatively easy for firms with little capital but cheaper labor to enter the commodity chain at the bottom, but their chances of moving up are increasingly circumscribed.

CONCLUSION: WILL RETAIL CONSOLIDATION IMPEDE INDUSTRIAL UPGRADING?

How likely is it that the experience of the "four tigers" will be replicated throughout Asia? Their path to development began on the bottom rungs of buyer-driven commodity chains in apparel, electronic assembly, and other low-wage production activities. Industrial upgrading into higher value-added activities, along with the cultural and social capital that was acquired along the way, helped to foster their economic development. Eventually, aided by government programs and economic assistance from the United States, firms in these economies - with the exception of Hong Kong - even developed their own producer-driven commodity chains in automobile manufacturing and other industries.

Today the route upward has changed. On the one hand, the growing importance of buyer-driven commodity chains - with their flexible structure, extensive contracting systems, and informal networks of relationships would seem to strongly favor Chinese business firms, which have long operated along similar lines. The appearance of this organizational form in industries such as automobile manufacturing, once the exclusive province of producer-driven chains, offers the possibility that contractors in capital-intensive industries might eventually move up into higher value-added activities.

On the other hand, the enormous power accumulated by retail conglomerates to control the commodity chains makes it more and more difficult for firms that enter at the bottom to move up.¹² The profits - and power - lie with the retailers and manufacturer/

¹¹ The 1998-99 combined sales of Sears, Kmart, and Dayton Hudson (owner of Target and Mervyn's) was \$106 billion (Hoovers 1999).

¹² To the extent that buyer-driven commodity chains are appearing in automobile manufacturing, this may be true as well. It is difficult for new automobile manufacturers in Taiwan and Korea to compete with established firms in Japan, the United States, and Europe. How will the appearance of automobile "superstore" retailers such as Auto Nation affect the ability of contractors down the supply chain to acquire know-how and move up the ladder?

designers, and even the latter are being squeezed out. The historically proven upward path - from simple assembly, to specification contracting, to designing and marketing one's own brands - may be a much more difficult one to pursue today. Even firms that gain the necessary know-how by beginning at the bottom may find that the route upward is closed off.

Nor is it clear that conditions still exist for the state to foster movement into more capital-intensive producer-driven commodity chains (Henderson and Appelbaum 1992). These conditions once included the Cold War, which funneled vast amounts of foreign aid into the region;¹⁶ world trade expansion, sustained by the long boom in the core economies during the 1950s and 1960s; and the crucial role of the developmental state, which frequently kept wages low through labor repression and subsidies in the form of cheap public housing, provided heavy investments in education and training, and pursued various forms of industrial policy during the latter phases of export-led growth and secondary import substitution as in South Korea, Taiwan, and Singapore.

It seems unlikely that such policies and conditions will be replicated elsewhere in the world in the near future. The Cold War has ended, and with it the impetus for the United States and other nations to support economic development through foreign and military aid. Global economic slowdown has dampened the markets for products from the late industrializers, raising serious questions about the efficacy of export-oriented industrialization. A central role for the developmental state, once aggressively pursued throughout East Asia, is today challenged throughout the world. The collapse of state socialism has contributed to the hegemony of a powerful neoliberal ideology that celebrates market reform as the exclusive panacea for economic success. We have seen the results of this approach throughout the world, from Russia to East and Southeast Asia to Latin America, and they do not portend well for global economic growth.

At the moment, the possibilities for industrial upgrading remain unclear. Although informal, more flexible forms of production invite the participation of firms throughout the world, and would particularly seem to favor Chinese forms of entrepreneurship, the ascendant forms of production are accompanied by a retail restructuring that may create the opposite effect. It remains to be seen how these forces play themselves out in the near future, or whether something entirely new will alter the nature of global commodity chains in unforeseen ways - for example, the explosive growth of web-based retailing,¹⁷

¹⁶ For example, U.S. aid financed 70 percent of South Korean imports and 80 percent of total fixed capital formation in South Korea during the period 1953-62; it financed 85 percent of the current account deficit and accounted for 38 percent of total capital formation in Taiwan during the same period. This does not include roughly \$6 billion to each country in direct military assistance (Castells 1992).

¹⁷ Examples of industrial policy included credit controls and/or price-ripping, enforced savings (Singapore's Central Provident Fund), public investment in government R & D centers, state creation of industrial sectors that did not previously exist either through state companies or through the supply of credit and financial guarantees to private companies (e.g., steel, shipbuilding, transportation, petrochemicals, and semiconductors), and occasionally, direct state ownership of key industries (banks in South Korea; airlines, armaments, and ship-repairing in Singapore).

¹⁸ Web-based retailing "e-commerce" refers to purchases from retailers or wholesalers made on one's home computer. In the United States, direct electronic sales totaled an estimated \$24 billion in 1999, and are projected to reach \$75 billion by 2003 (Oldham 1999). It ranges from shopping directly from the manufacturer's on-line catalogue, to the instant retailing of amazon.com, to electronic auction houses such as e-bay where customers can buy products directly from one another.

which will enable consumers to bypass conventional retailers altogether.

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