



Can Shanghai Compete as a Global City?

Edward Leman

Shanghai has gone through enormous changes over the past decade that few cities in history have experienced in such a short period of time. The city has succeeded on many fronts: economic growth, foreign investment, trade, improvement in living standards, infrastructure construction, and environmental improvement, to name just a few. But the job is not nearly finished, and Shanghai cannot afford to become complacent. Competition among cities around the world for investment capital, trade, technology, and knowledge is fierce and—thanks to the globalization of the economy—becoming fiercer. Key economic functions are increasingly concentrated among fewer and fewer cities.

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These cities are creating a strong and, as New York has shown during the last year, very resilient international network that meets the needs of the global economy—not simply those of their region or nation.

Shanghai may be able to compete as a global city if it is able to build up its competitiveness in seven key areas: as a market for imports of fin-

Shanghai could become a major player in the global economy—but it needs to focus much more than it does now on developing its real competitive advantages.

ished goods; as a local market for domestic production; as a production node for domestic markets; as a production node for export markets (export processing); as a source of intermediate inputs for production in other cities in China; as a distribution node for domestic and export markets; and as a center for supporting services, including those fostering technological, marketing, and management innovation.

In its 10th Five-Year Plan (2001-05), the Shanghai government declares its aim to become a “center of international economy, finance, trade, and shipping...a city with plentiful foreign and domestic business opportunities and low comparative costs.” Though these intentions are laudable, they will amount to empty rhetoric if Shanghai does not sustain systematic, integrated, and consistent efforts to build on its considerable competitive advantages during this decade.

Shanghai as market

According to the 2000 national census, Shanghai’s total population now exceeds 16.2 million, of which 3.8 million are migrants who have resided in the municipality longer than six months (see *The CBR*, May-June 2002, p.30). This makes Shanghai the second-largest metropolis in East Asia after greater Tokyo. The census count exceeds by 3 million the official municipal estimates made before the release of the census figures late last year; Shanghai’s real consumer population base is therefore 20 percent larger than has generally been reported. Although this larger population dampens official per capita indicators of GDP, retail sales, and household savings deposits, this newly measured

migrant population includes a growing number of highly trained, middle-income professionals and managers who have moved from other cities with the active encouragement of the Shanghai government.

The real market region of Shanghai steps well beyond its administrative boundary, which was drawn more than 40 years ago. Within a one-day drive from Shanghai is a regional market encompassing more than 100 million people. This one-day market region is the largest in East Asia: it is twice the size of Tokyo’s or Jakarta’s, two-and-a-half times the size of Seoul’s, triple the size of Manila’s, and four times that of Bangkok. Furthermore, Shanghai is the core metropolis in a large, rapidly urbanizing and industrializing corridor stretching from Ningbo through Hangzhou, in Zhejiang, to Shanghai, and then northwest through Suzhou, Wuxi, and Changzhou to Nanjing, in Jiangsu. This corridor—which is 250 km long but less than 50 km wide—constitutes China’s largest megalopolis, with a concentrated population of 55 million.

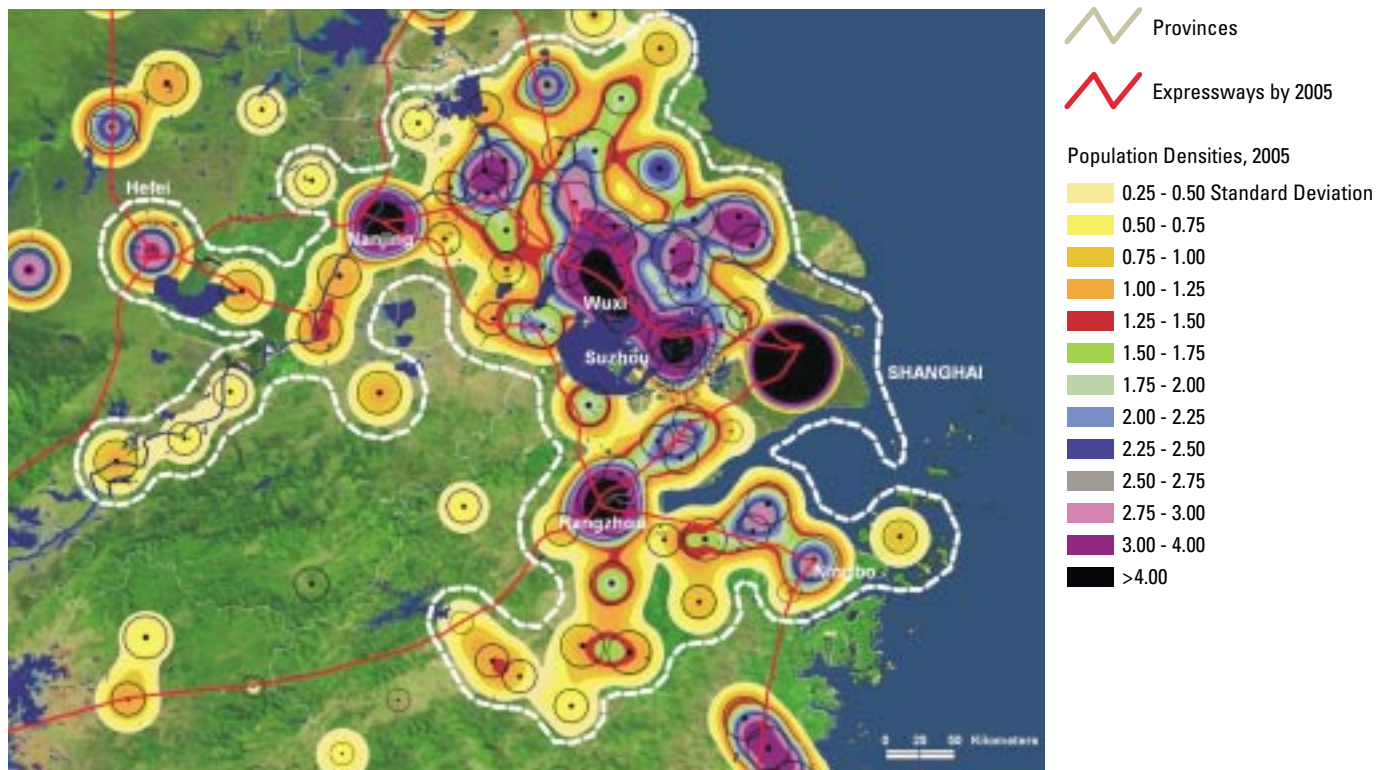
Around 43 million people in this narrow corridor are either fully urban or, while still living in suburban areas and officially classified as “agricultural,” are quickly shifting to urban employment, lifestyles, and purchasing power. This group makes up a rapidly growing proportion of the megalopolitan population; its members have left farming to enter the manufacturing, construction, retail, and transportation services sectors of the wider urban economies. And by the middle of this decade, the Yangzi Delta megalopolis will merge with a smaller corridor of cities on the north shore of the Yangzi River in Jiangsu and a cluster of cities in southern Anhui to form an agglomeration of 75 million inhabitants, of which 52 million will be urbanized, according to Chreod Ltd. projections prepared for the World Bank (see Figure 1).

Links to consumers

Of major significance to this megalopolis are the impacts of China’s ambitious intercity highway construction program. Started in the early 1990s, by 2015 the National Trunk Highway System will have connected all of the country’s principal cities and provincial capitals. Many links are already complete in the Yangzi Delta region, and by the end of this decade, when the delta expressway network is complete, Shanghai will have access to a coastal and central-China market of just over 600 million consumers within a two-day drive by transport truck from China’s largest port. This two-day market region will contribute 60 percent of China’s GDP by that time, and will be home to 80 percent of China’s enterprises.

No other gateway city will have comparable access to such a large consumer and producer market. For example, the Pearl River Delta

Figure 1
Yangzi Delta Megalopolis, 2005, Projected Population Densities



SOURCE: Chreod Ltd.

region, anchored by Guangzhou, Hong Kong, and Shenzhen, will have access by intercity highway by the end of this decade to 340 million consumers, of which over a third will be in the less-developed western provinces of Guangxi, Guizhou, and Yunnan. The Pearl River Delta's two-day market region is expected to contribute just over 30 percent of China's GDP by 2010 (not including the GDPs of Hong Kong and Macao SAR), and hold 17 percent of the country's enterprises, according to Chreod projections.

Shanghai as producer

Shanghai is not only China's largest metropolitan market and gateway to the largest and fastest-growing regional consumer market in Asia. For most of the last century, Shanghai has also been one of China's key production nodes, particularly in manufacturing.

Shanghai's economic planners have scored major successes in industrial restructuring over the last 10 years. Low value-added manufacturing has decreased significantly, particularly in the antiquated textile and heavy-equipment manufacturing industries, both of which have relocated outside of Shanghai (see Figure 2).

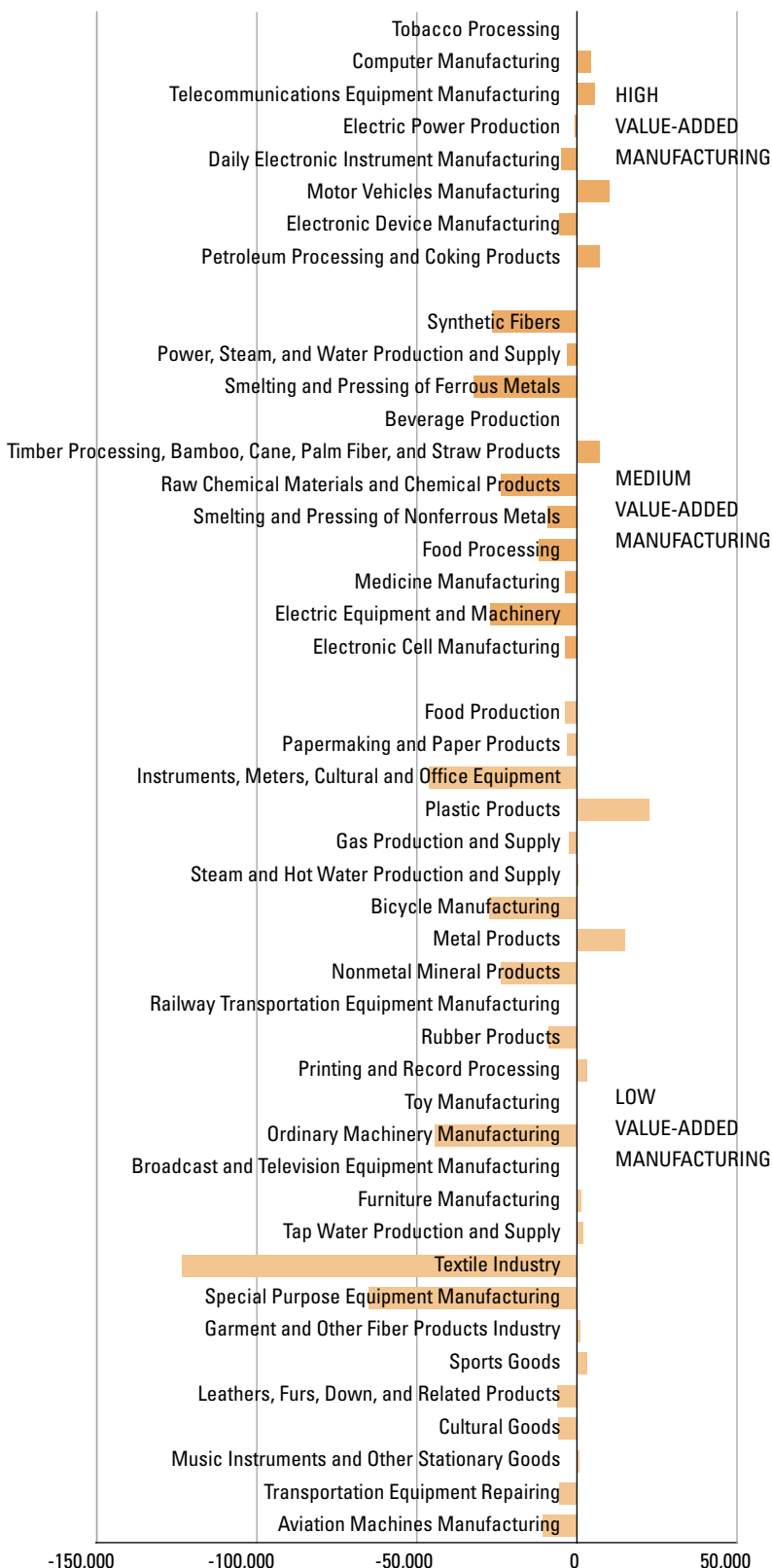
Though low and medium value-added industries still account for the vast majority of Shanghai's industrial employment, the city has

Shanghai is preparing integrated environmental management plans covering the entire metropolitan area, including the suburbs.

made significant advances in motor vehicle manufacturing, computer manufacturing, telecommunications equipment, and integrated circuit manufacturing and packaging (see *The CBR*, November-December 2001, p.8). Foreign companies have invested heavily since the early 1990s to help propel Shanghai into a national leadership role in the automotive, chemical, microelectronic, and advanced transportation sectors.

The process of industrial restructuring has had a dramatic impact on the urban structure of Shanghai (see Figure 3). Many large, old plants have relocated to outlying cities and towns in the Yangzi Delta megalopolis and even inland to lower-cost locations in central and western provinces. Medium value-added industries, such as food processing, have sprung up in suburban

Figure 2
Changes in Shanghai Employment
by Type of Industry, 1996-2000 (persons)



SOURCE: Chreod Ltd.

towns, taking the form of township and village enterprises, relocated state-owned and urban collectively owned enterprises from the inner city, and foreign-invested ventures. Industrial restructuring has freed up considerable inner city land for residential and commercial redevelopment.

More importantly, medium value-added industrialization is dramatically transforming suburban towns and villages—until recently treated as “rural” county towns—into important extensions of the “city proper” within Shanghai’s Outer Ring Road. Smaller cities and towns, such as booming Kunshan and Taicang just across the Shanghai border in Jiangsu, are also attracting medium-sized value-added firms. All counties in Shanghai (except Chongming Island) have recently been upgraded to administrative districts; they now have the same powers and responsibilities as traditional urban districts within the Outer Ring Road. Shanghai is therefore rapidly evolving into a poly-nucleated structure similar to Tokyo and New York. A range of competitive suburban locations are becoming available to firms; these will broaden significantly during this decade with the development of a light rail transit network that will dramatically improve labor mobility in Shanghai.

High value-added manufacturing is showing signs of economic and spatial clustering. Microelectronics firms appear to be congregating in the Zhangjiang High-Tech Park in the Pudong New Area on Shanghai’s east side. Automotive firms and supporting services are clustering in the Anting area to the west. And large-scale chemical production and processing facilities are centered in Shihua Town on Hangzhou Bay.

While the Shanghai municipal government actively promotes these high value-added clusters, district governments are pushing the development of medium value-added industries in suburban towns. Foreign investors should keep two issues in mind when assessing the competitiveness of suburban towns as production centers. The first is the uneven institutional capacity of district governments to promote and sustain conditions that firms require to become and remain profitable. These include the provision of infrastructure to required standards, transparent regulatory approvals and fair enforcement, and the provision of sufficient residential accommodation for workers, including migrants. The second issue is the quality and future of the environment. Given the pace of industrialization, many suburban towns face serious water, sewage, and solid waste problems.

The Shanghai municipal government has recognized these vulnerabilities in suburban districts and proposes to address them as an important element of the 10th Five-Year Plan. With the support of the World Bank, Shanghai is preparing integrated environmental management plans covering the entire metropolitan

area, including the suburbs. It is also embarking with the World Bank on a 10-year program to strengthen the institutional, environmental management, and fiscal capacities of suburban district governments. This is the first time that China will explicitly integrate suburban development into the urban management of a large metropolitan area.

Shanghai as service provider

By the late 1980s, the central and municipal governments had recognized that four decades of under-investment in human, technological, and financial capital had led to a steep decline in Shanghai's traditional industrial role. The governments expended considerable effort during the 1990s to shift the economy's reliance from the secondary (manufacturing and construction) sector to the tertiary services sector, and to jump-start much higher value-added manufacturing through foreign direct investment in key sectors.

The secondary sector accounted for 64 percent of Shanghai's GDP in 1990. By the end of the decade this ratio had dropped to below 48 percent; the tertiary services sector was producing half of Shanghai's GDP. Though on the surface this is a remarkable achievement, digging a bit deeper into what constitutes "tertiary" services raises some important issues for Shanghai.

The services category, as measured by China's economists, lumps street vendors with luxury retailers, porters with lawyers, and pawn shops with accountants into a single tertiary sector. But a critical "quaternary" services sector exists, in which globally competitive cities excel, that is considerably more important to Shanghai, and that requires careful and sustained nurturing by government and business partners. The quaternary sector is knowledge- and information-intensive; it focuses on abstract transactions that create much higher value. Globally competitive cities provide such quaternary services as higher education, cultural and entertainment services, human resources and organizational management, information management, science and technology management, legal and regulatory services, and sophisticated financial services in capital formation, allocation, distribution, and monitoring. The lower value-added tertiary sector, in contrast, serves the needs of local consumers and producers; it includes distribution, communications, infrastructure, real estate, health, and basic education services.

New York, London, Tokyo and other global cities excel in quaternary services and provide them to three types of markets: extended regions in which they are the principal metropolis (for example, New York in the Eastern Seaboard megalopolis stretching from Boston to Washington, DC), to national or continental

markets; and to each other in a global network of information and capital flows.

Disaggregating and reorganizing data on Shanghai's services sector provides a more instructive breakdown between lower value-added tertiary and quaternary sectors. In 1990, quaternary services accounted for 12 percent of the city's GDP; by 2000 this share had grown to just over 18 percent, according to the *Shanghai Statistical Yearbook*. Tertiary services accounted for 20 percent of GDP in 1990 and 32 percent in 2000. Therefore, the lower value-added tertiary sector grew faster and contributed more to Shanghai's economy than did advanced quaternary services. In economic terms, a metropoli-



Lost.



Found.

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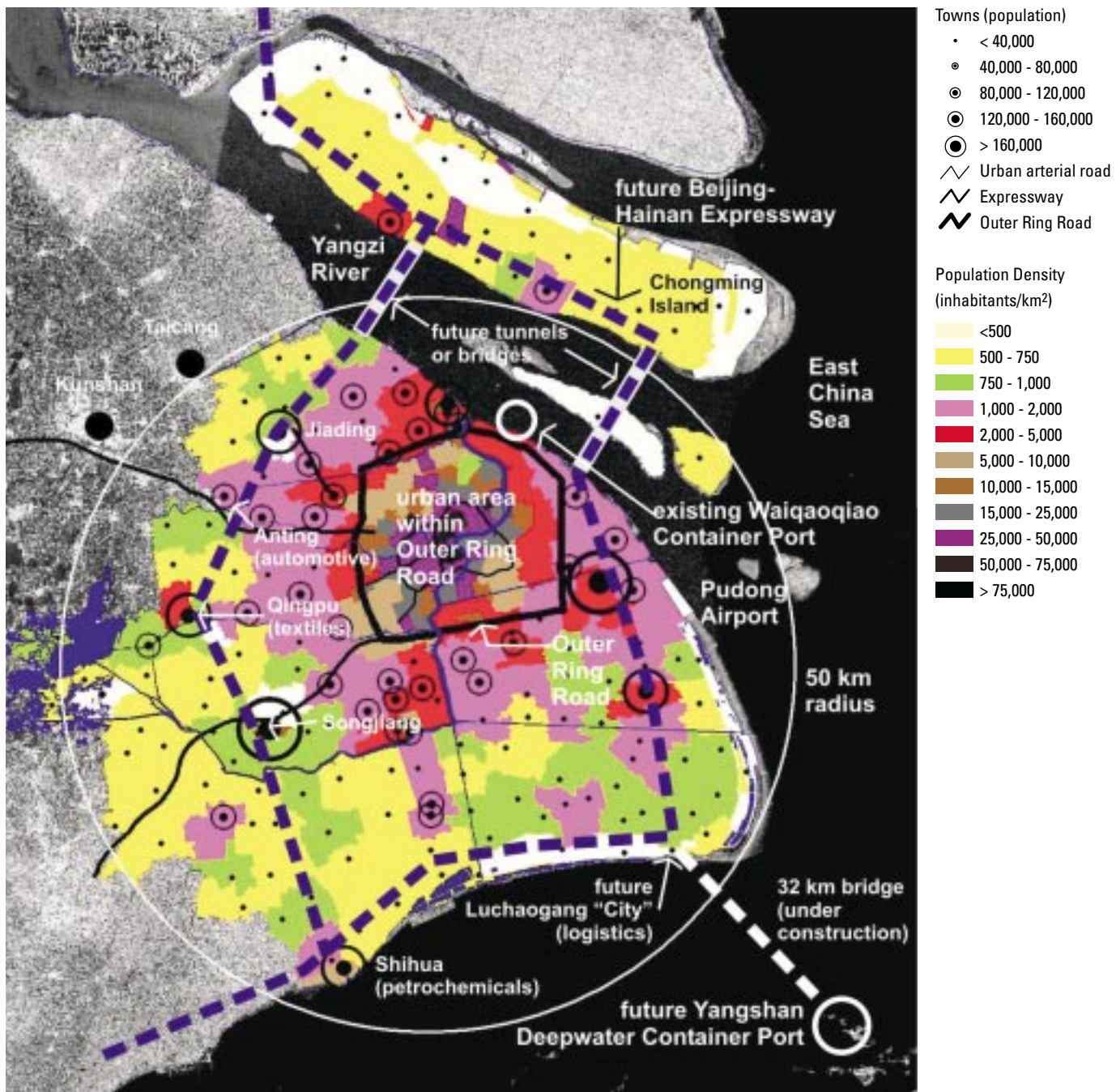
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Figure 3
Shanghai Municipality, 2000



SOURCE: Chreod Ltd.

tan and regional economy the size of Shanghai's clearly has a latent demand for more sophisticated higher-order transactions.

The demand is not being met yet in Shanghai, however, because of supply bottlenecks.

Systemic constraints to the development of quaternary services persist in law, finance, enterprise management, and information and knowledge management. Most are rooted in a culture of corporate statism that emerged in Shanghai

during the last decade through widespread corporatization of government interests (most of which remain government owned and managed, at best indirectly). They are also rooted in thinly veiled protectionism that foreign companies will rigorously challenge under World Trade Organization (WTO) rules.

Recognizing the impact and potential benefits of China's WTO commitments, the Shanghai government has made the support of quaternary

services a key element of its 10th Five-Year Plan. The city will give considerable attention to increasing human capital through support of medium and higher education, promotion of research and development by both domestic and foreign enterprises, and acceleration of reforms in the financial and legal sectors. The reforms are still subject to central government control and, notwithstanding China's WTO entry, continue to be hampered by central ministries' periodic ambivalence about reform; in many instances, central agencies far removed from the dynamics of China's largest metropolis are holding back the development of Shanghai's quaternary services.

If Shanghai can maintain its momentum, by the end of this decade the structure of the metropolitan economy could be markedly different. Thirty percent of the city's GDP could be in quaternary services, up from 18 percent in 2000, and 28 percent of GDP could be in tertiary services, down from 32 percent, according to Chreod projections (see Figure 4). The contribution of high value-added manufacturing could triple by 2010, medium value-added manufacturing could rise to 20 percent, and low value-added manufacturing could all but disappear.

Shanghai as distribution hub

Much of Shanghai's growth during the past decade has resulted from an explosion in foreign trade. Imports through Shanghai more than tripled from 1990 to 2000, while exports grew fivefold. In 1990 Shanghai's trade was principally focused on Hong Kong, Japan, the United States, Germany, and Singapore; in 2000 the top five trading partners were Japan, the United States, Germany, Hong Kong, and South Korea, according to the *Shanghai Statistical Yearbook*. Trade with Japan grew by a factor of eight, to over \$9 billion, from 1990 to 2000; with the United States by seven times, to over \$7.5 billion; with Germany by five times, to almost \$3 billion; with France by 12 times, to just over \$1 billion; and with Taiwan by a factor of 37, to reach \$1.7 billion (part of which flowed through Hong Kong in the early 1990s). Direct trade with Hong Kong—once Shanghai's principal trading partner—only doubled during the decade, to \$2.6 billion. Shanghai clearly managed to weather the Asian crisis by significantly diversifying and expanding its trade with markets minimally affected by the financial turmoil and subsequent trade contractions.

Shanghai's port now ranks fourth in the world in terms of tonnage. It is China's largest container port after Hong Kong, and ranks fifth in the world in container throughput, up from seventh place in 1999. The port is expected to handle 7 million twenty-foot equivalent units (TEUs) in 2002 and reach 10 million TEUs by 2005; container throughput growth averaged 27 percent per year during the past decade, according to the

Shanghai Statistical Yearbook. The existing container port is a joint venture between the Shanghai Port Authority and Hutchison Port Holdings of Hong Kong, which has invested heavily since the mid-1990s in berth construction, technological improvements, and management upgrading. The reach of Shanghai's port is

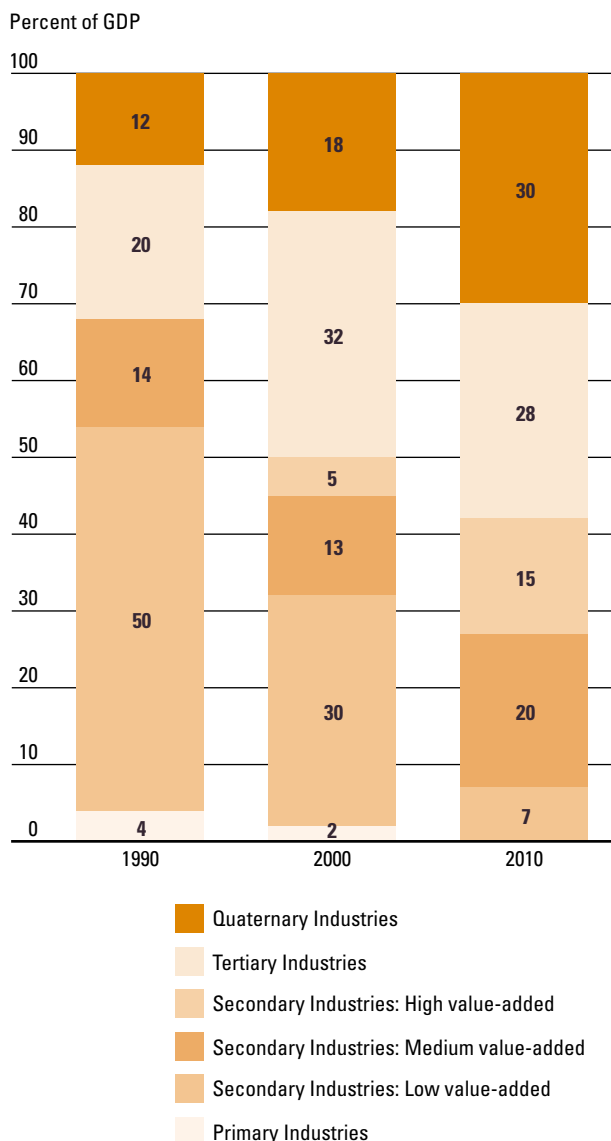
Despite the improvements to Shanghai's container facilities, the city still faces major bottlenecks, due, in part, to the relatively shallow depth at the Waigaoqiao terminal, which limits access to 50,000-ton ships.

formidable: Shanghai is a major national railway hub, a principal node of the National Trunk Highway System, and the ocean port for the Yangzi River Basin stretching to Yunnan on the border with Myanmar. Upon completion of the Three Gorges Dam, 10,000-ton ships will be able to reach inland as far as Chongqing.

Despite the improvements to Shanghai's container facilities, the city still faces major bottlenecks, due, in part, to the relatively shallow depth at the Waigaoqiao terminal (12.5 m when dredged), which limits access to 50,000-ton ships. After years of debate between Shanghai and Zhejiang on the location of a new deepwater container port, the State Council last year gave final approval to Shanghai to construct a new 50-berth port on the Yangshan Islands in Hangzhou Bay that will serve fourth- and fifth-generation container vessels. The port will be connected by a 30 km, eight-lane bridge to a new town to be built in Shanghai's Nanhui District. The town, Luchaogang, will hold between 200,000 and 300,000 residents by 2020, and will be the principal logistics facility for the new port. The scale of the project, to be completed around 2015, is unprecedented; Hong Kong, the world's largest container port in terms of throughput, today holds 18 berths; second-ranked Singapore has 16 berths. Construction of Yangshan Port will start this year.

Shanghai's expressway connections have, to date, focused on developing links westward

Figure 4
Shanghai's Changing
Economic Structure, 1990-2010



SOURCE: Chreed Ltd.

along the Yangzi and northwards through central Jiangsu to the Bohai Gulf. A major new initiative during this decade will be the construction of the Shanghai portion of the Beijing-Hainan north-south expressway. This link will integrate with the new Yangshan container port: two highway links will cross the Yangzi across Chongming Island to the northern shore in Jiangsu and, to the south, across Hangzhou Bay via a new causeway. A significant bottleneck in north-south movement, particularly from eastern Jiangsu and southern Shandong, will therefore be removed.

Most of the hardware will likely be in place by the end of this decade to support Shanghai's aspiration of becoming China's principal distribution

node. Nevertheless, considerable work lies ahead: China continues to lag in efficient truck freight transport, river transport, rail transport, general and specialized warehousing, containerization and packaging, transshipment, freight forwarding, and logistics information management. Intermodal transport remains seriously stymied by interprovincial and intersectoral protectionism and an almost complete lack of coordination in investment planning and operational management of ports, rail, air cargo, and highways. WTO membership may facilitate consolidation, technological upgrading, and management improvements in many of these sectors through foreign involvement. However, WTO provisions alone are unlikely to rid the transport and distribution sectors of a long legacy of local protectionism and chronic inefficiencies. Though Shanghai can, and likely will, reform within its boundaries, many of the institutional changes needed to make it a global distribution hub will require firm central government leadership of sustained interprovincial and national action.

Shanghai as center for innovation

Ultimately, cities become and stay globally competitive through constant innovation by individuals, enterprises, knowledge institutions, and governments. Innovation occurs not only in the development of technology and its applications, but also in the identification of latent needs of customers; in the mobilization and organization of human, financial, technological, and information resources to meet these needs; and in the creation of effective institutional mechanisms that ensure fairness and protect the public interest. Innovation cannot be legislated or put into five-year plans; ideas that matter cannot be neatly programmed. Similarly, though outside ideas can spark innovation, it is not an importable commodity.

Shanghai's biggest challenge during this decade is not to build ports, highways, or high-speed rail lines. It is to develop a resilient culture of innovation among its domestic and foreign enterprises, among its students and teachers in centers of higher learning, among its cadres in the municipal and district governments, and among its political leadership in the Municipal People's Congress and the local Chinese Communist Party apparatus. Shanghai must be at the leading edge of innovation in finance, law, logistics, trade, science and technology, governance, urban management, and environmental protection if it is to compete successfully on a global scale. Innovation requires the acceptance of risk, sufficient rewards, superb human capital, mechanisms through which human capital can converge to exchange knowledge and ideas, the free flow of information, and access to sufficient financial capital that is tolerant of prudent risk.

Shanghai has most of the elements needed to become a global center of innovation. Traditionally, Shanghai has been China's foremost commercial city; it has a strong business heritage and latent mercantile orientation, outshining any other metropolis in China. Shanghai has one of the best-trained and hardest-working pools of human capital in the country; the city has 45 colleges and universities and 34 research academies specializing in science, engineering, economics and finance, the social sciences, and

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business management, including the China Europe International Business School in Pudong's Jinqiao area, a joint venture of Shanghai Jiaotong University and the European Foundation for Management Development. Work is currently under way on a new "university city" in Songjiang Town in the western suburbs, an "Oriental College Town" as a joint venture of Fudan and Tongji universities, and similar consolidated higher learning clusters in Nanhui District and Jinqiao.

Shanghai has made major progress over the last 15 years in opening itself to information and knowledge from throughout China and from other countries; the city now has formal academic exchanges with more than 400 universities in 30 countries, and a growing number of students trained overseas are returning to live and work in the metropolis.

Some foreign companies in Shanghai have started to branch out into research and development in a number of sectors, including micro-electronics, information technology, and health sciences. Over 50 venture capital firms have established operations in the city, several with seed financing from the Shanghai government (see *The CBR*, July-August 2002, p.26).

Shanghai prides itself on having the most advanced regulatory regime in China for the protection of intellectual property rights,

although, as elsewhere in the country, progress is required in consistent enforcement. Shanghai has been a test area for a number of national institutional reforms in social security, land leasing, public infrastructure, public and corporate finance, and the marketization of state-owned housing. It continues to test innovations in these and other sectors—innovations that will be replicated throughout China as further examples of the "Shanghai model."

Though all of these factors have contributed to Shanghai's growth over the last decade, much more effort is needed to integrate systems of innovation that produce concrete results. Government alone cannot—and should not—be responsible for fostering innovation. Shanghai's companies, both domestic and foreign, need to be much more active partners than they are today, since growth in their profitability ultimately depends on maintaining an edge over competitors in other cities in China and elsewhere in the region.

Shanghai 2010

Shanghai could be a very different metropolis by the end of this decade. Economic restructuring and financial reforms could lead to growth in advanced quaternary services, and to a far greater role for higher value-added manufacturing serving domestic and global markets. The city could equal and perhaps surpass Hong Kong and the Pearl River Delta to become China's main distribution hub for external trade. If interprovincial trade barriers fall, linkages to the rest of the Yangzi Delta megalopolis could strengthen to the point that Shanghai's municipal boundary blurs and eventually becomes irrelevant. Transport and commercial connections to cities in central and western provinces, particularly along the Yangzi River, will improve significantly; improvements in logistics and transport services could lead to Shanghai's consolidation as the gateway to the largest market region in China. By the end of this decade—if it continues to build upon its many inherent competitive advantages through the consistent pursuit of innovation—Shanghai could well become China's principal nexus to the global economy.

Not all foreign companies will need to locate in this nexus. Each company's business case will differ; profitability growth will depend on the specialized roles that individual companies expect from a wide range of cities in China—as markets, production locations, distribution nodes, and centers for supporting services. Yet one thing is certain: wherever individual companies focus across the Chinese landscape, Shanghai will play an increasingly important role in growing corporate profitability if, as seems likely, it eventually becomes China's first globally competitive city. 完