

GLOBAL URBAN DEVELOPMENT
METROPOLITAN ECONOMIC STRATEGY REPORT

**SHANGHAI'S ECONOMIC DEVELOPMENT:
ITS OPPORTUNITIES AND CHALLENGES
IN THE 21ST CENTURY**

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SHANGHAI

I. Overview

Shanghai is located on the western coast of the Pacific Ocean and at the central section of the north-south coastline of China. The metropolis has served as one of the major trading ports and gateways to inland China since the mid-19th century after the Opium War. It has achieved a rapid and sustained growth since the late 1970s when China began its economic reform. During 1978-2000, Shanghai's GDP achieved a 6.5 times increase and reached 48.749 billion U.S. dollars, with an annual growth rate of 9.5%. The city has evolved from an industrial and commercial city into a national economic center. The rapid development of finance, insurance, trade, transportation, communications, real estate and other types of the tertiary industries¹ have raised its proportion in Shanghai's GDP from 30 percent to 50 percent within 10 years.

Shanghai's dramatic development comes from its diverse economic base. Major industry networks include: communications, electronics and the information industry, biomedicine, auto manufacturing, petroleum, sophisticated chemical and steel manufacturing, complete-set equipment manufacturing, finance, insurance, real estate, household electrical appliances, and tourism.

The geographic pattern of the economic activities in Shanghai is due to historical, administrative, and economic reasons. The districts in Shanghai have different economic concentrations. The main economic activities in core districts include commerce, tourism, professional services, and some traditional old industries. Each outside district takes advantage of its own geographic location and proximity to other regions to develop a different industrial structure. With the redistribution of economic activities for the purpose of developing Shanghai as a whole, many traditional industries have been pushed to the outlying districts. The main economic activities in the outlying districts are very diversified, ranging from manufacturing industries to commerce, agriculture, tourism, storage and transportation.

Shanghai is now facing great opportunities in turning itself into an international economic, financial, and trade center. China's continuous economic growth provides a solid base for Shanghai to move toward this goal. The favorable policies of the central government for Shanghai have provided a real boost enabling the metropolis to take off. However, challenges also exist. These include upgrading the industrial structure, restructuring the ownership composition, creating market-oriented management mechanisms and R&D ability, developing physical infrastructure, meeting the fierce competition faced by the auto industry, and retiring existing sunset industries.

Facing the opportunities and challenges of the 21st century, Shanghai has set its long-term strategic objectives for social and economic development. By 2010, Shanghai is planned to become one of the international economic, financial and trade centers of the world. Key elements of the city's economic development strategy include:

¹ In the industrial classification of the Statistics, the tertiary industries refer to all the other industries other than primary industries (agriculture and fishery etc.) and secondary industries (manufacturing). The key tertiary industries include finance, insurance, commerce, transportation, postal services, telecommunications, real estate, and information technology.

- Initially form the economic scale and comprehensive strength of a world metropolis
- Optimize urban spatial distribution
- Initially modernize the city's physical infrastructure
- Participate in international labor division and the circular flow of the international economy
- Introduce the operational mechanism of a socialist market economy
- Pursue the balanced social, economic and environmental development.

The major tasks for industrial development in "Tenth Five-Year Plan" period are:

- Develop the major industries to boost economic growth
- Nurture new and high technology industries to become new growth engines
- Transform traditional industries and develop petrochemical, iron and steel industries
- Encourage the development of "Metropolitan-type" industries and the creation of greater employment opportunities
- Improve industrial relocation and readjust spatial economic distribution

Favorable policies from the central government have contributed to the dramatic development already achieved in Shanghai. The central government can continue to assist the metropolitan economic strategy by bolstering both physical and institutional infrastructures. Specifically, the central government can help to develop Shanghai's economy in following ways.

- Support local physical infrastructure construction and clean land-use
- Provide funding in Shanghai's research institutions and support venture capital investment to facilitate technology commercialization
- Foster favorable trade and tax environments
- Provide more financial freedom and help expand its capacity as a financial center
- Improve the legal environment and protect intellectual property rights

II. Geographic Characteristics and Administrative Structure

Shanghai is located on the western coast of the Pacific Ocean and at the central section of the north-south coastline of China. It borders on Jiangsu and Zhejiang Provinces on the west. Its land area covers 6,219 square kilometers and water area runs 122 square kilometers. Shanghai's Chongming Island is the third largest island in China with an area of 1,041 square kilometers.

Exhibit 1. Shanghai's Geographic Location



Source: Shanghai Government. 2002. Retrieved on March 14 from <http://www.shanghai.gov.cn/gb/shanghai/English/BasicFacts/node1310/node1311/userobject22ai270.html>.

After several efforts at administration readjustment since 1949, by the end of 2001, Shanghai was divided into 18 districts and one county². There are a total of 153 towns, 3 townships, and 99 sub-district committees. Core districts include Huangpu, Luwan, Xuhui, Changning, Jing'an, Putuo, Zhabei, Hongkou, and Yangpu. The outlying districts include Pudong New Area, Minhang,

² The 19 districts and county are Pudong New Area, Xuhui District, Zhabei District, Hongkou District, Yangpu District, Huangpu District, Luwan District, Baoshan District, Jiading District, Minhang District, Jinshan District, Qingpu District, Nanhui District, Fengxian District, Changning District, Jing'an District, Putuo District, Songjiang District, and Chongming County.

Boashan, Jiading, Jinshan, Songjiang, Nanhui, Fengxian, Qingpu, and Chongming. The metropolis now has an urban area of 3,924.24 square kilometers and a rural area of 2,416.26 square kilometers.

III. What drives the metropolitan economy?

Shanghai is the largest city in China and has been one of its major socioeconomic centers. By the end of 2000, with a population of only 1% and a land area of 0.06% of the nation's total, Shanghai contributes one twelfth of the nation's total industrial output value, one sixth of the country's port cargo handling volume, one fourth of the country's total exports and one eighth of national financial revenue. In addition, the city has been playing a leading role in the nation's reform and opening movement, including industrial upgrading and science and technology renovation. In the early 1990s, the central government decided to accelerate the development of Shanghai into a world economic, financial and trade center and to boost the economic development of the whole Yangtze River area where the city is located. The city has achieved an astounding economic growth since then.

a. How is the metropolitan economy evolving?

Consistent with the Central government's timetable of socioeconomic strategic plans, Shanghai just finished its "Ninth Five-Year Plan" in 1999 and started its "Tenth Five-Year Plan" in 2000. China began its economic reform in the late 1970s. By the end of 2000, Shanghai achieved a rapid and sustained growth. During 1978-2000, the city's GDP increased 6.5 times and reached a worth of 48.749 billion U.S. dollars, with an annual growth rate of 9.5%. In the early 1990s, the opening and development of Pudong as a special economic zone pushed Shanghai to the forefront of the whole national economic reform movement. This opened it to the outside world and became a real boost to Shanghai's economic development. The government statistical figures show (People's Daily, 2000) that in the 1990s, the annual growth rate of Shanghai's GDP exceeded 12 percent, making it a period of the fastest economic development in Shanghai's history. Shanghai has evolved from an industrial and commercial city to an economic center. The rapidly developing finance, insurance, trade, transportation, communications, real estate and other types of tertiary industries have raised its proportion in Shanghai's GDP from 30 percent to 50 percent within 10 years. The stock, futures, foreign exchange, talents and other markets for production have taken initial shape here and trickled down to the whole country, with their trade volume accounting for 25 percent of the nation's total.

Exhibit 2. Shanghai

	Shanghai
Population, 2000:	16.7377 million
Population Growth, 1990-2000:	25%
Long-Term Employment Growth, 1978-2000:	16%
Recent Ave. Annual Employment Growth, 1990-2000:	2.7%
Gross Regional Income, 2000:	7.425 billion U.S. dollars
Recent Gross Regional Income Growth, 1990-2000:	318.7%

Sources:

- (1) The 5th Census Report of Shanghai Municipality (2000), retrieved on March 11, 2002 from <http://www.stats-sh.gov.cn/shtj/tjgb/rkpc.htm>.
- (2) Statistical Yearbook of Shanghai Municipality (2000), retrieved on March 11, 2002 from <http://www.stats-sh.gov.cn/shtj/tjnj/2001/>.

Shanghai began a massive economic restructuring drive in the early 1980s, and later set the goal of becoming an international financial, information, and trade and shipping center. With the collaborative efforts of both the central and city governments, Shanghai's tertiary industry has been restructured and has grown rapidly. In 2001, the GDP of the tertiary industry was 303.227 billion U.S. dollars, accounting for 50.7 percent of the total GDP of the city. It exceeded the total of both the agricultural and industrial sectors. Over the past two decades, the proportion of the tertiary industry in the metropolitan GDP grew from 18.6 percent to 50.7 percent, while the proportion of the secondary industry dropped from 77.4 percent to 47.6 percent. Since 1978, the tertiary industry has increased an average of over one percentage point of the total Shanghai metropolitan economy each year.

Contributed by the development in the finance and securities markets, transportation and communications service, the development of the tertiary industry in Shanghai has maintained a strong momentum in the past five years. Currently, the major types of tertiary industries include finance, insurance, commerce, transportation, postal service, telecommunications, real estate, and information technology. In 2000, these sectors made up for nearly 40% of the city's GDP. The GDP of the finance and insurance sector reached about 8.28 billion US dollars, constituting 29.7% of the GDP of the total tertiary sectors. It has become the largest among all the tertiary sectors.

With economic structuring, the number of laborers employed in various economic sectors has also been changing since the early 1990s. Consistent with the industrial distribution of GDP, the number of laborers working in secondary industries dropped from 59.3% of the metropolis's total workforce in 1990 to 42.1% in 2000. Whereas the figure within tertiary industries continued to increase, jumping from 29.6% in 1990 to 46% of the metropolis's total workforce in 2000. Tertiary industries have provided a growing number of jobs for surplus laborers, which have helped to solve the city's unemployment problem.

In addition, Shanghai's economy is much more open than ever. Shanghai has approved over 25,000 foreign-invested businesses. 325 of the world's top 500 companies have invested in Shanghai. Foreign direct investment in Shanghai, coming from over 80 countries and regions, amounts to a contracted value of 40 billion U.S. dollars. Shanghai trades with 210 countries and regions, with an annual trade volume of nearly 40 billion U.S. dollars. Shanghai is also the financial center of China opening to the outside world branches of most international banks, insurance and securities companies.

b. What are the key industry networks in the metropolitan region?

Shanghai enjoys a diverse economy. Major industry networks include: (1) communications, electronics, and information manufacturing, (2) automobile manufacturing, (3) petroleum and sophisticated chemical industry, (4) iron and steel manufacturing, (5) complete-set equipment manufacturing, (6) biomedicine, (7) finance, insurance, and real estate, (8) household electronic appliance manufacturing and (9) tourism. In 2001, the GDP of the first six industry networks³ increased by 22.6%, 5.5% higher than the average growth. The profit generated in these six industries constituted 54.1% of the total industrial profit of the city.

³ For this figure, the first industry network only includes electronic and communications equipment manufacturing.

Communications, electronics, and information manufacturing

The information industry in Shanghai has grown rapidly in the late 1990s. It now plays a leading role in Shanghai's economic development. The major fields include software development and production, systematic application, microelectronics production and information service. In 2000, this industry achieved an added value of 4.233 billion U.S. dollars, growing 28.8% over 1999 and accounting for 7.7% of the city's GDP. The added value of information product manufacturing jumped 9.8% to reach 152 million U.S. dollars. The total electronic and information product manufacturing has achieved the highest production growth rate, increasing by 37.4% over the period 2000-01. The greatest increases are in the fields of communications equipment, computer, and electronic component manufacturing. Also the added value of information services grew 13.4% to reach 1.568 billion U.S. dollars. Over the period 2001-05, the development of integrated circuit, computer, network and digital products will be on the top agenda. By the end of 2005, the information industry is expected to maintain a growth rate of over 25 percent and account for over 13 percent of the city's total GDP.

Automobile industry

In 2001, the auto industry enjoys the highest sales-production ratio (100.1%) of all the first six industries. The GDP in the auto manufacturing industry increased by 20.5%, next only to the electronics and information product manufacturing industry and biomedicine. The total profit in this industry increased by 23.8%. As China's most popular automobile seller, the joint venture Shanghai Volkswagen Corp. sold 220,000 cars in 2000, increasing the total sales of this brand in China to over 1.66 million. Another major foreign investor is General Motors. It has been cooperating with Shanghai Automobile Industrial Company since the mid-1990s.

Since 2001, the city government and private industry have been spending around 6.3 billion US dollars to turn Anting, an auto-manufacturing town in northwestern Shanghai, into China's Detroit. The huge construction project includes building some auxiliary transport infrastructure, Shanghai Automotive Industry Quality Testing Research Institute, Tongji Automobile College and a new city-level used car-trading center. It is predicted to take 5 to 10 years to shape Anting, where Shanghai Volkswagen is located, into one of China's leading auto-making centers. About half of the expected 6.3 billion US dollars investment in the project will come from foreign investors.

The core function of the auto center will be car trading. Taking advantage of Shanghai port, production, market and financial services, the center aims to attract both domestic and foreign auto dealers. Car and its related manufacturing and research are an important part in the center. Together with its auto shipping function, it is targeted as one of China's leading auto manufacturing-and-trading centers.

Iron and steel manufacturing

In 2000, the GDP in iron and steel manufacturing reached 11.816 billion US dollars, with a 77% increase over the period 1995-2000. Shanghai Baosteel Group Corp. is the largest iron and steel manufacturer in the nation. Established in 1998, Shanghai Baosteel Group Corporation (SBGC) has a fixed asset of 16.25 billion U.S. dollars and a production capacity of more than 18 million tons

steel. Baosteel Group Corporation auto sheet production accounts for more than 60% of the domestic market share. It also supplies about 85.5% of the steel used in “Little Red Flag”⁴ car made by the First Automobile Works. Within the next 3 to 5 years, SBGC is planned to turn into a superior steel production base of automobile steel, oil tube, shipbuilding plate, stainless steel, silicon steel and high-efficiency construction steel, and become an important base for the development of new process, new technology and new material. With China becoming a member of the WTO, the iron and steel-manufacturing sector in Shanghai has begun to diversify business with the cooperation of companies within the industry, lower the cost, increase the technological proportion in steel products, and promote the exportation of products.

Complete-set equipment manufacturing

In 2001, complete-set equipment manufacturing increased by 19.2%. The sales-production ratio reached 98.3%. Over the period 1995-2000, the GDP in power station and large mechanical and electrical equipment manufacturing achieved 45% increase and reached 3.123 US billion dollars. Power station complete-set equipment and large mechanical and electrical equipment manufacturing industry will develop six major types of products with priorities on complete-set systems of power station equipment, power transmission and transformer and distribution equipment, digit-controlled machine tool, engineering mechanics, elevator, refrigerator and air conditioner.

Petroleum and sophisticated chemical manufacturing industry

In 2001, petroleum and sophisticated chemical manufacturing industry increased by 8.8%. The sales-production ratios reached 99%. The added value of this industry achieved a 62.3% over the period 1995-2000 and reached 2.762 billion US dollars. This industry mainly develops three types of oil based on imported crude oil, organic chemical raw materials, three major composite materials and their deep processed products, fine chemical products with priority on major projects such as 600 thousand ton ethane and 100 thousand ton polyvinyl chloride, 60 thousand ton polypropylene and 160 thousand ton polyester.

Between 2001-05, the city has planned to turn it into one of the world's top chemical bases. The base will consist of four zones - Shanghai Chemical Industry Park on the north bank of Hangzhou Bay, Wujing Chemical Industry Zone in the west, Wusong Chemical Industry Zone in the north and a tire-manufacturing center in Minhang District. During the five-year period, Shanghai Chemical Industry Park will build facilities to refine 10 million tons of oil and produce 2 million tons of ethylene annually. The US\$3 billion project will be a joint effort by Shanghai Petrochemical Company, British Petroleum and Amoco from the United States.

Biomedicine

In 1997, Shanghai Pharmaceuticals (Group) Corp. conducted strategic adjustment, selecting 86 out of its total 2066 products to be focused on. Its three major areas include biological source products, traditional biotechnology products and modern biomedicine. In 2001, biomedicine achieved the fastest profit increase in the city's industrial growth. In 2001, the industrial output value and profits

⁴ The model is specifically made for Chinese government leaders.

generated by the modern biology and medicine industries increased by 19.5% and 48.3% respectively to reach 2.122 billion U.S. dollars and 91.217 million U.S. dollars, respectively in 2000. In 2001, the total profit of the industry was 138.456 million U.S. dollars with a 69.3% increase over 2000.

Finance, insurance, and real estate

As a national financial center, Shanghai has maintained a stable development in its financial and insurance services. In 2000, the added value of local finance and insurance industry rose 150% over 1995 to 8.338 billion U.S. dollars, with an annual growth of 19.8%, which constitute 15.2% of the metropolis's GDP. By the end of 2000, the balance of deposit accounts of all financial institutions in the city totaled 93.893 billion U.S. dollars, a 9.315 billion U.S. dollar increase since the beginning of the year. The balance of loans was 72.001 billion U.S. dollars, an increase of 6.587 billion U.S. dollars. By the end of 2000, Shanghai had more than 3,300 financial institutions (including financial network outlets). These included 17 Chinese banks, 11 Chinese insurance companies (including one reinsurance company), four trust and investment companies, six securities companies, eight financial companies of enterprise groups, one financing and leasing company, 230 rural credit cooperatives, and 66 operational foreign financial institutions. There have been about 40 foreign banks operating in Pudong. Around half of them are allowed to conduct China's currency business.

The insurance industry was also developing rapidly in that year, offering more insurance services. By the end of 2000, Shanghai had 23 Chinese and foreign insurance companies (including 12 foreign-funded firms), which reported a total premium of 1.57 billion U.S. dollars, a 10.4% increase over 1999.

The real estate industry has grown dramatically in the last decade. In 1990, the sector's GDP was approximately 147 million U.S. dollars, constituting 1.4% of the total GDP in Shanghai. In 1995, its GDP grew almost 10 times that of 1990 to approximately 1.501 billion U.S. dollars, making up for 4.3% of the total GDP in Shanghai. In 1999, the GDP amounted to about 3.041 billion U.S. dollars, increasing to about twice what it was in 1995. It constituted 5.5% of Shanghai's total GDP.

Household electronic appliance manufacturing

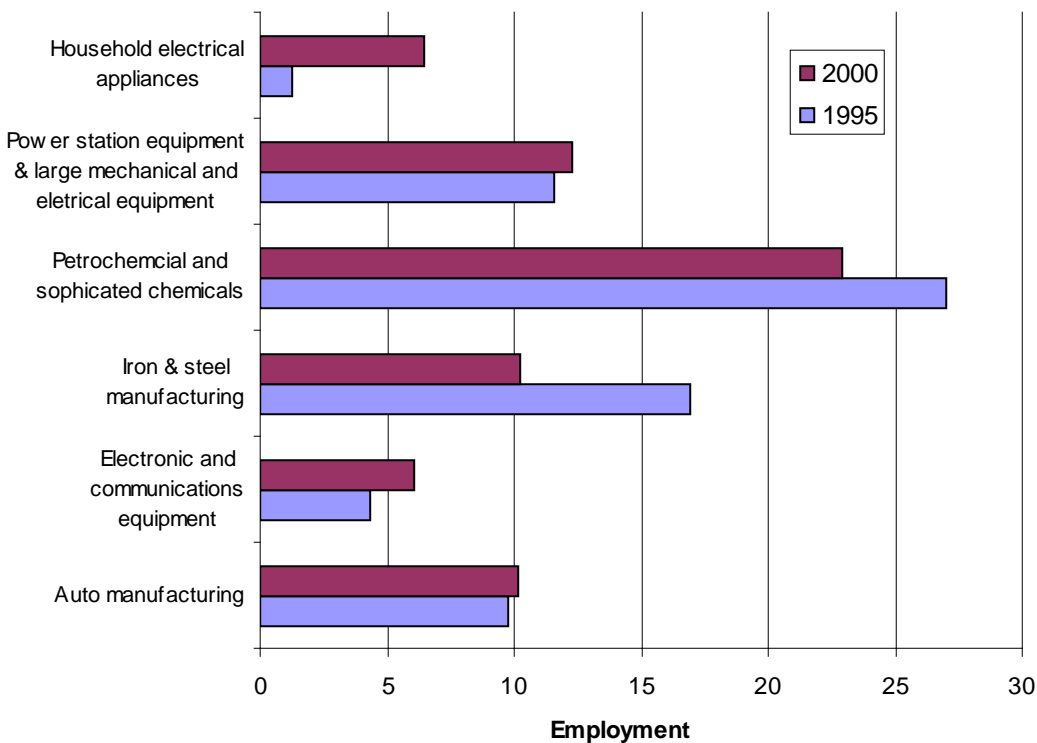
In 2000, the GDP in this industry reached 5.704 billion U.S. dollars with 120 percent increase over 1995-2000. The added value of this industry reached 1.048 billion U.S. dollars, with 112 percent increase in the same period. Household electrical appliance manufacturing will mainly produce environment protection, energy saving, multi-functional new generation of household electrical products with the priority on constructing major projects such as video product and color TV glass cover.

Tourism

Taking advantage of the varied functions of a large city, Shanghai has made great efforts to develop its tourism industry. One way of boosting its tourism has been to host festivals and cultural activities. Various cultural activities have been held in this city in 2000. These activities include the

second China International Art Festival, Shanghai International Clothing Culture Festival, the eighth Shanghai International Television Festival, Shanghai Biennale art exhibition, China Oil Paintings in the 20th Century Shanghai Exhibition, and a number of other activities. In 2000, the increased value of the city's tourism industry hit 2.856 billion U.S. dollars, an increase of 16.1% over 1999. The proportion of tourism industry in the city's total GDP rose from 4.9% in 1999 to 5.2%. In 2000, Shanghai received more than 1.82 million international tourists from 174 countries and regions, up 9.5% over 1999. Of the total, more than 1.39 million tourists came from foreign countries and the rest came from Hong Kong, Macao and Taiwan. The overseas tourists brought to the city a total of 1.613 billion US dollars in foreign exchange, up 18.3%. In 2000, more than 78.48 million tourists visited Shanghai, including 64.33 million tourists from other parts of China. These tourists generated total revenue of approximate 9.363 billion U.S. dollars.

**Exhibit 3. Employment in Shanghai's Major Manufacturing Industries, 1995 & 2000
(In Ten Thousands)**



c. Where is economic activity located across the metropolitan region?

The geographical distribution of the economic activities in Shanghai is due to historical, administrative, and economic reasons. Land uses in Shanghai were based on the socialist model of city development, which was applied to all parts of Shanghai's municipal areas. The result is that geographic distribution of the economic activities in Shanghai remains widely dispersed. Along

with the progress of economic reform, Shanghai has increased efforts in readjusting its industrial distribution and urban planning. By 2001, the city has completed an industrial distribution and urban planning program that covers an area of 6,340 square kilometers. The multi-layer layout consists of a central business district (CBD), central commercial district (CCD), Inner-Ring Road area, Outer-Ring Road area and suburban districts and the county. The city has built nine city-level industrial zones in suburban districts and the county for relocating factories from its downtown area. Such efforts have facilitated industrial redistribution in the urban area. Meanwhile, the city has carried out the renovation of the old city areas and relocated more than 100,000 local families to make way for the construction of central business district, city-level sub-districts, specialized sub-districts, main shopping streets and commercial districts.

The city's districts now have different economic concentrations. As shown in Exhibit 4, the main economic activities in core districts include commerce, tourism, professional services, and some traditional industries.

Exhibit 4.
The Spatial Distribution of Economic Activity in Shanghai's Core Districts

Core Districts	Industry concentration
Huangpu	Commerce and tourism
Luwan	Commerce, recreation services, professional services (financial, managerial, legal, and information), cargo services
Xuhui	Electronics and information technology, biomedicine
Changning	Commerce, real estate, food and beverages, finance and securities, tourism, and other social services
Jing'an	Commerce, real estate, professional services (legal, financial, and information), tourism
Putuo	Commerce, trade, sophisticated chemical manufacturing, biomedicine, printing and packaging, furniture, food processing
Zhabei	Printing, electronics and information technology, commerce
Hongkou	Commerce, recreation services, suitcases, clothing, lamps and lanterns, auto parts, jewelry making.
Yangpu	Machine tool, diesel engine, power station and supplementary products, electric cable, waterworks, commerce

Sources: Shanghai Municipality Government official website. Retrieved on March 16, 2002 from <http://www.shanghai.gov.cn/gb/shanghai/index.html>.

Each outlying district takes advantage of its own geographic location and proximity to other regions to develop different industrial structures. With the redistribution of the economic activities for Shanghai as a whole, many traditional industries have been pushed to the outlying districts. More zones have been designated for industrial use in the suburban areas including Baoshan and Minhang, which are later followed by other outer suburbs and the southern coastal areas and Pudong New Area. A number of special developments zones exist in the suburbs, particularly in the satellite towns of Minhang, Caohejing and Songjiang. There are currently four special zones are in Pudong: Lujiazui Finance & Trade Zone, Jinqiao Export Processing Zone, Waigaoqiao Free Trade Zone and Zhangjiang Hi-tech Park. As shown in Exhibit 5, the main economic activities in the outlying districts are very diversified, ranging from manufacturing industries to commerce, agriculture, tourism, storage and transportation.

Exhibit 5.
The Areas of Distribution of Economic Activity in Shanghai's Outlying Districts

Outlying Districts	Industry concentration
Pudong New Area	Automobile, communications and information equipment (including computer), steel products, petrochemical and sophisticated chemical products (including biological and modern medicine), power station complete-set equipment and large mechanical and electronic equipments, household electronic appliances, finance and insurance, commerce, tourism, and agriculture
Minhang	Electrical equipment, clothing, chemical materials and products, metal and plastic products, trade, and real estate
Baoshan	Steel manufacturing, port (i.e. storage and transportation)
Jiading	Autos, electronics, textile, metal products, tourism, and agriculture
Jinshan	Chemical products, light industry machines, textile and clothing, electronics, auto parts, medicine, construction materials, heating and ventilation equipment, food processing, tourism, agriculture
Songjiang	Export processing and agriculture
Nanhui	Auto parts, new construction materials, sophisticated chemical products, food processing, sea port functions (i.e. storage and transportation), tourism, agriculture
Fengxian	Electrical products, chemical products, textile, plastic products, construction materials, suitcases, clothing, tourism, recreation services, agriculture
Qingpu	Electronics and information technology, textile product and machinery, printing and packaging, mold and normalizer products, agriculture,
Chongming	Agriculture, textile and clothing, metal products, mechanical electronics

Sources: Shanghai Municipality Government official website. Retrieved on March 16, 2002 from <http://www.shanghai.gov.cn/gb/shanghai/index.html>.

IV. What is the metropolitan region's economic strategy?

a. What economic development opportunities and challenges is the region facing?

Shanghai is now facing great opportunities for turning itself into an international economic, financial, and trade center. With more than 20 years' continuous strong economic growth, China has turned into one of the leading economic powers in the world. China's continuous economic growth provides a solid base for Shanghai to evolve into an international economic center. The close connections of China with the outside world require some big cities to act as a bridge between China and the rest of the world. Shanghai is best qualified for the role due to following major reasons. (1). As the largest city in China, Shanghai is rich in socioeconomic resources (i.e. infrastructure and human resources). This is especially true given the city's continuous rapid growth since 1990s. (2). Geographic location and convenience of transportation allow Shanghai to connect the south and the north and the costal area and inland China. Shanghai is the gateway to central and northern China given its dominance over the Yangtze region. It has the potential to play a more important role in the nation's economic development. (3). The historical experience can also help Shanghai to adapt easily to China's involvement in the globalization process. Shanghai originally emerged as a business city and trade port, which has fostered a market-oriented culture. Shanghai was already an international metropolis in the early 1900s. The city doesn't lack the

experience of interacting internationally. Overall, Shanghai already has an advantageous position in international competition compared to other cities in China.

Considering the city's advantageous position in the nation, the central government of China has targeted Shanghai as one of new economic growth centers of the nation. A series of favorable policies have been made to support Shanghai's economic development in various ways, particularly by developing the metropolis's physical and institutional infrastructures. The support has become intensive since the early 1990s. One example is the establishment of Pudong New Area.

On April 18, 1990, the central government announced plans to open up and develop Shanghai Pudong. This was seen as a great opportunity to build Shanghai into one of the economic, finance and trade centers of the world and to regenerate the economy of the Yangtze River Delta and even the whole Yangtze River Valley. It is expected that Pudong, together with other special economic development zones in China should become a demonstrative role model for the rest of the country. This would extend their power and give a boost to the economic growth in other regions. The past decade witnessed the explosive economic growth in Pudong New area. The GDP in 2001 reached approximately 13 billion U.S. dollars, 18 times larger than in 1990 (approximately 0.73 billion U.S. dollars). There has been an average of 20% increase in GDP during this period. The rapid economic growth in Pudong New Area has made it the new engine of the metropolis's economy. It has become the landmark of Shanghai as one of the international economic centers in the 21st century.

Exhibit 6. The Importance of Pudong New Area in Shanghai (2000)

	Units	Shanghai	Pudong New Area	Proportion (Pudong/Shanghai)
GDP	Billion U.S. Dollars	549.855	111.214	20.0%
Foreign Investment	Billion U.S. Dollars	63.9	28.84	45.1%
Exports	Billion U.S. Dollars	253.54	95.8	37.8%
Population	Ten Thousands	1313.12	163	12.4%
Area	Square Kilometers	6340.50	533.44	8.4%

Sources: Shanghai Municipality Government official website. Retrieved on March 16, 2002 from <http://www.pudong.gov.cn/gb/node2/node5/node6/node13/node54/index.html>.

The intensive support from the central government adds to the metropolis's advantages, which together have provided Shanghai with a great opportunity to take off and turn into an international business, financial, and trade center. However, challenges also exist. They include:

(1) At the macro level, the city faces the challenges of upgrading the industrial structure and restructuring the ownership composition. More new private industries should be encouraged to make the city economy globally competitive in the era of the new economy. At the micro level, many enterprises lack qualified management mechanisms and research & development ability for the competition in the market economy. This makes the local enterprises less competitive both on domestic and international markets. Some of them may not even survive.

(2) Compared to other international cities such as Hong Kong and Tokyo, Shanghai lags far behind in institutional infrastructure. The legal system and supervision methods of the market economy need to be improved. Its construction is related to how much sovereignty the city government can have under the central government. This will be a long-term project during the process of modernizing Shanghai.

(3) The development of the physical infrastructure also poses a challenge to Shanghai's future growth. Problems exist in local government's decision-making process including land use restrictions, urban construction and administration, the improvement of urban ecological systems, and public utilities capacity. Particularly, the relocation of those residents in the old (central) districts challenges the effort of the government turning these districts into the commercial center.

(4) The membership in the WTO will require China to open its domestic markets to foreign companies in many industrial sectors despite the import quota by 2005. Local industries particularly the auto industry in Shanghai will face the fierce competition from those foreign companies. Despite the leading role in the nation, the auto industry in Shanghai is still a fledging sector compared to the international competitors. It is short on both quantity and quality. For example, Shanghai Volkswagen sold about 250,000 automobiles in 2000, compared to 7,424,000 cars sold by the Ford Motor Company the same year. Its main product Santana represents the technical level of auto manufacturing in the early 1990s. The main challenges will lie in four fields: price, quality, service and product research and development (R&D). The merging and reorganization of the local auto industry becomes necessary. The auto industry also faces the rigorous pressure on environmental protection and energy. The challenges might require the merging and reorganization of the local auto industry.

(5) There are issues posed by traditional industries (particularly the textile industry) in Shanghai. Where will these industries go? And how can the layoffs from these industries be handled? The rapid economic growth in the services sector has absorbed many of the laid-off workers. This is why, unlike some other traditional industry-centered cities, the decline of some of these industries has not hurt the workers and the city's economy much. However, the city government still has to pay enough attention to the decline and its related social security issues to make sure that the economy could keep growing smoothly.

Despite the challenges, Shanghai is now embracing the unprecedented opportunities to turn into one of world economic centers.

b. What are the main goals of the metropolitan economic strategy?

Facing the opportunities and challenges of the 21st century, Shanghai has decided its long-term development strategic objectives for social and economic development. By 2010, Shanghai will become one of the economic, financial and trade centers of the world; the Pudong New Area will be turned into a first-class export-oriented, multifunctional and modernized city in its own right. Shanghai will be a new international economic metropolis (APEC 2001).

Objectives of 2010

(1) Build the economic scale and comprehensive strength of a world metropolis

The average annual growth rate of GDP shall be maintained at about 10%; the average per capita GDP shall reach the level of the middle developed countries; and the ratio among the primary, secondary and tertiary industries shall stand at 1:39:60.

(2) Optimize urban space distribution

About 85% of the Shanghai area shall be urbanized. Also, efforts shall be made to create a "multi-center, multi-layer and concentrated" urban space distribution and to make Shanghai part of China's largest city group in the Yangtze River Delta region. The central area of the city will be divided into the central business district, the central commercial district, the Inner-Ring Road district and the Outer-Ring Road district.

(3) Modernize the city's infrastructure

The city shall be built into an international airport consisting of the Pudong International Airport and the Hongqiao International Airport; a multi-functional seaport with the Shanghai Harbor as the center and container transportation as the mainstay; and an information port with multimedia as its basic feature. In addition, a comprehensive and multi-layered city traffic network relying mainly on the metro and a light rail system will build.

(4) Participate in the international labor division and the circular flow of international economy

The city shall first be built into a bridge and hub for linking up the domestic and the overseas markets and then a key piece in the world network of economic integration. The city's economy shall also move further ahead with giant strides in a world market-oriented direction.

(5) Introduce the operational mechanism of a socialist market economy

The city shall set up a modern market system for connecting the domestic and overseas flow of capital, commodities, technology, trained and educated personnel and information. The Shanghai Stock Exchange shall become the securities trading center in China and one of the main stock markets in the Asia-Pacific region. The city's commodity market shall become the central market in the country and one of the key markets in the world. Meanwhile, the city's technology market shall become the nation's trade center for various kinds of technology.

(6) Pursue balanced social, economic and environmental development

The city shall establish the framework of a high-grade, diversified international cultural exchange center; introduce an open and life-long education system; create a multi-layer public health protection system that combines medical treatment, disease prevention, health care and health recovery services; and form a social security service system featuring wide coverage and a well-

developed network. The city shall also improve the local ecological environment⁵. The purpose is to realize a sustainable socioeconomic and environmental development and harmonize its benefits.

Major tasks for industrial development in "Tenth Five-Year Plan" period

The major tasks for industrial development in the "Tenth Five-Year Plan" period are:

(1) Develop the major industries to boost economic growth

The six major industries include information, finance, trade, auto, complete-set equipment, and real estate industry. The development of these industries should rely on the overall advantages and be adjusted to the change of market needs.

(2) Nurture new and advanced technology industries to become new engines for growth

It is important to encourage the innovation of technology, management, and mechanisms to accelerate the industrial application of new and advanced technologies. Priority is given to four industries including biomedicine, new materials, environmental protection, and modern goods circulation.

(3) Transform traditional industries and develop fundamental industries

Emphasis is given to the petrochemical industry and the iron and steel industry. Industries are encouraged to adopt advanced technology to transform the traditional industries.

(4) Encourage the development of "Metropolitan-type" industries and create more employment opportunities

Metropolitan-type development takes advantage of the rich resources in metropolitan areas such as technology, labor force, and physical infrastructures. This development includes the modernization of agriculture⁶ industry and tourism and the development of industries such as clothing, food, domestic furnishings, printing and packaging, makeup and detergent, jewelry processing, arts and crafts, and recreation and sports products.

⁵ In the last few years, Shanghai has achieved dramatic progress in pollution control and environment protection. In 2000, the city got rid of black color and stinking odor for the main sections of Suzhou Creek. The quality of the main water body of the Huangpu River had also improved. Besides, the city's green area has increased recently. In 2000, there was 828 hectares more public green area in the city than in 1999, with 30 large greenbelts built covering more than 3,000 square meters each, and seven new parks opened.

⁶ Four modern agriculture parks were built by the end of 2000. The parks have launched a group of projects for production and processing of vegetables, flowers and edible mushrooms. More than 300 key or overseas-funded enterprises undertaking the production, processing and marketing of agricultural products have been set up. There were a total of 234 large modern greenhouses for vegetable production in 2000. A modern agricultural sector is taking shape in the rural area of the city.

(5) Improve industrial relocation and readjust economic distribution

The focus is to develop the central districts into a center for information, finance, commerce, and other social services and "metropolitan-type" industries, and to develop the manufacturing industries, commerce, goods circulation, real estate, and tourism.

V. What can the central government do to support the metropolitan economic strategy?

Favorable policies from the central government have contributed to the dramatic development already achieved in Shanghai. The central government can continue to assist the metropolitan economic strategy in various ways. The most important ways the central government can do this is to promote the investment in both physical and institutional infrastructures. Specifically, the central government can help to develop Shanghai's economy in following ways.

Support local physical infrastructure construction and clean land-use

Funding from the central government can help to improve the modernization of public utilities, transportation, and communications networks. Such improvement will help Shanghai become equipped with strong distribution and communication networks. The support from the central government can help the city's economy to remain competitive. Besides, the central government should also support the city's environmental initiatives such as the adoption of new and clean technology in its infrastructure construction and the restoration of environmentally hazardous industrial sites.

Provide funding for Shanghai's research institutions and support venture capital investment to facilitate technology commercialization

Some new and advanced technology industries such as the biomedicine industry and the information industry have become growth engines in Shanghai. Others could be the city's future growth engines. The central government can provide more research funding to encourage the research in these areas including information industry, biomedicine, and new materials. And the increased support for venture capital investment will help to facilitate the commercialization of these new technologies. These efforts will foster the development of Shanghai's new and advanced technologies industries and contribute to its economic growth.

Foster favorable trade and tax environments

Shanghai is well positioned to be an international trade and transportation center in Asia-pacific region. China's maintenance of good trade relations with countries in this region will provide Shanghai with more opportunities in its trade with other countries abroad. Besides the good trade relations, the central government could also give favorable trade policies to Shanghai's special development zones to promote the city's export. Also a favorable tax environment in Shanghai will also attract more foreign direct investment, which will enhance exports.

Provide more financial and insurance freedom and help to expand its capacity as a financial center

Like other major cities in China, the financial business in Shanghai is a preliminary financial organization system led by the central bank. Its main body is state-owned banks with coexistence of other commercial banks, non-bank financial organizations and foreign capital financial organizations. Some foreign financial organizations including Citibank have opened branch offices in Shanghai. More and more foreign financial organizations are requesting to enter Shanghai as well. The central government can give more financial freedom to the city by allowing more foreign banks and insurance companies to provide more services in Shanghai. This can help the metropolis to provide better financial and insurance services necessary for more and more international corporations in Shanghai. The central government can also help to expand Shanghai's capacity as a national or even international financial center through institutional construction including the development of banking service system, securities, and direct financing and insurance.

Improve the legal environment and protect intellectual property rights

Good legal environment is necessary to build international investors' confidence. The central government can help improve the legal environment and protect intellectual property rights in Shanghai by strengthening and amending the legal system particularly associated with business activities and intellectual property rights.

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APPENDIX: The Evolution of Pudong in Shanghai since 1978

I. Introduction

For last 50 years, many radical changes happened in Shanghai, scrambling the farmland over the countryside, the city is gradually transformed from a self-sufficient economy to an open economy; from an industrial city to a post-industrial city, from low-rise with medium density to a high density and crowded city. For last 50 years, because of the rapid transformation from a semi-feudal and semi-colonized society to a modern one, the Shanghai city is suffering some serious problems. On one hand, a strong government control for the economical development is revealed. On other hand, market oriented economy is playing a more and more important role in daily life. The living style is undergoing a radical change. It has brought a conflict between planned and random development, and this situation generates confusion in urban planning and construction. The city becomes a synonym of collage city, hybrid city, cyber city, puzzle city and so on.

There is hardly a city on the world, where more infrastructure has been built recently as in Shanghai. Investments into the mobility infrastructure have raised for 15x from 0,72 billion in 1990 to 10,9 billion Yuan in 1998. There are two main reasons. The first is specific historical and economical development of Shanghai and its position within China. In a country where politics and economics are closely interlinked Shanghai's economic power has made it an important actor in national policy. It has become the so-called *'Dragon's head of China's economy.'* Therefore Shanghai represents one of four municipalities in China under direct administration of the central government. The national policy influences the city considerably. On the other hand the mayor of Shanghai has a substantial political backup to run the city. In this way it is not surprising that the Chinese president Jiang Zemin was prior the party leader and the mayor of Shanghai. The other reason why infrastructure booms in Shanghai is rather obvious – Shanghai is enormous and vast. In a city where in the newly developed Pudong area more projects are built than in the entire Spain there is little space for a reflexive urban policy. Here the concept can be summarized in *'build efficiently and more.'* Yet beside the facilitating role that infrastructure has in Shanghai, one has to point out also its *'speculative role.'* Maybe this role of infrastructure is less obvious in Shanghai as it is in other parts of China. Nevertheless, in Europe modernist ideology considered transportation as key part of every city, making the city operational as a whole. In Shanghai infrastructure activates possible future urban situations, speculates and in a way disintegrates city into enclaves (source: <http://www.trajekt.org/magazine/?rid=1&tid=1&id=16>).

Figure 1: Shanghai in 2004



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>

II. Problems in Shanghai development

A striking contrast in living quality from area to area happens in the same city. There is an uneven distribution of environmental resources, environmental quality, educational opportunities and infrastructure for different citizens. There is the coexistence of shanty area and best quality's residences in the same city. The big differences in human resources among Asian cities can be seen.

There are several other critical urban problems, such as the traffic congestion, inadequate transport, water supply, low quality of services, poor quality of urban administration, large scale migration into the city from countryside, and other social problems of the poor and disadvantaged, homeless, schooling, and problems of social disorganization, and lack of employment and training opportunities for unemployed and low-skilled workers, etc.

III. Pudong continues to fly higher

In the wake of the global economic slowdown, Pudong's export-oriented economy seems to be undisturbed and still maintains rapid growth, according to the Shanghai municipal government. Pudong, with a population as 1/7 of the whole Shanghai, has produced almost 1/4 of the GDP from Shanghai as a whole, generated half of Shanghai's export and import value, and created 1.1 million jobs (Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>). Vice-mayor of Shanghai Zhou Yupeng said Pudong has been a strong magnet for foreign investors, thus becoming one of the hottest destinations for international capital.

Figure 2: Shanghai & Pudong



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

However, Pudong's achievements cannot be separated from central government and Shanghai municipal government's support. It results in the cooperation of central government, Shanghai municipal and local government. The support from different levels of governments can be generalized as follows:

- Target & strategy: economic, trade, financial, shipping center;
- Functional policies: (land leasing, banking, allocation of key projects);
- Government functions: simple approval procedure; one-step service; transparent operation;
- Market admission: service, retail, bonded warehouse;
- Financial package: Pudong Development Fund, loans and bonds, capital market;
- Preferential tax policies;
- Concentration of production element markets.

(Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.)

IV. Central government Policy support for Pudong district and the Yangtse River Delta-- Focus shifted from Guangdong to Shanghai

In 1990s, the central government was viewing the national development in a broader way. Shanghai as the nation's industrial center and the chief provider of the fiscal income for the central government, got the priority. With Mr. Deng Xiaoping's instructions on Shanghai's development and the Premier's declaration of Pudong Development Zone inauguration, in 1990 Shanghai received the central government's incentive policies in various manners. Instead of the PRD's from bottom-up approach in development, Shanghai was greatly pushed by the central government policies and measures. As a result, a decade later, Shanghai and the Yangtze River Delta (YRD) were outpacing Guangdong and PRD in various economic indicators and the YRD became the new economic importance in China's economic development.

The central government regional policy could determine the path of development for the regions concerned. Coastal development and the Pearl River Delta, Shanghai's

Pudong development and the Yangtze River Delta and Western China Development strategy for western China, all show this dominance of the central government policies in their respective development. Western China Development is less effective in the short run as in the two deltas, partly because of its vastness geographically and limited resources for too many people.

The responding measures by the regional governments determine the growth rate locally once the central government policies are promulgated. Government intervention is necessary, but not at the expense of the market forces in regional development.

V. Shanghai Municipal Government & Pudong

Today, Shanghai Municipality Government, on the basis of the original master plan of Shanghai submitted to the State Council in 1984, has revised the master plan in accordance with the strategy objectives of the city's economic and social development. An ambitious plan is undertaking to build Shanghai into an international metropolis at the advent of 21st century. The slogan " a new look for the city in one year, the astonishing changes in three years " even becomes the guideline of the urban reconstruction and redevelopment. Shanghai is now facing a significant historic opportunity for it to reemerge as a world economic, financial and trade center, and no less a stern challenge to that effect. Such a formidable task as a target to fulfill can only be accomplished through a solid master plan and the unremitting efforts of the citizens and even of the people of the whole nation.

Since early 1990s, Shanghai has already set up a strategy for urban development, it is simply called " One Dragon's Head and Three Centers ", i.e. a functional aim for the opening and development of the Pudong New Area as a leading role, and to build up the city as an economic, financial and trade center in the world. In this way, Shanghai is to set in motion the efforts for a leap in the regional economy of the Yangtze Delta and its whole valley. All these thus urgently demand the city to raise scientificness, forward-looking vision and operability, update concepts, explore new ideas, choose new starting points, and reform and improve the content and methods in urban planning and planning administration. The urban planning of Shanghai has to achieve the following five strategic objectives, that is, objectives that are to assure the realization of the metropolitan development.

The first one is to improve the mechanism of urban planning under the condition of market-oriented economy. The second one is to adjust the urban structure in order to make it more rational and to meet the transformation of the industrial structure. The third one is to utilize the humanistic advantages and optimize the urban space in Shanghai. The fourth one is to construct a rational infrastructure, both soft- and hardware infrastructure. The fifth one is to improve the system of urban planning and planning administration.

VI. Development of Pudong

VI.1 Master plan and three priorities in Pudong Development

Figure 3: master plan



Pudong, as the tip of Shanghai and Yangtse River Delta, first has its geological advantage. With the support from central government and Shanghai municipal government, the three priorities in Pudong development are as follows:

- Three Priorities in Pudong development:
- Urban Planning: Four national-level development sub-zones (service, modern-industry, high-tech, free trade zone)
- Infrastructure:
 - 25 billion yuan (1990-1995, tunnels % bridges, roads, utilities)
 - 100 billion yuan (1996-2000), airport, harbor & teleport, sunways & highways)
 - 100 billion yuan (projected) (2001-2005 framework of world-class infrastructure network)
- financial service: bank, insurance, trade, capital market (RMB 8.3 trillion), production element markets
(Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>).

VI.2. Administrative structure models

Pudong administrative structure models are divided into three phases by different offices or agencies, as shown in the following:

- 1990-1992 Pudong development Office (coordinating function)
- 1993-2000 Pudong New Area Administration (a quasi governmental agency)
- 2000.8- present Pudong New Area People's Government (district local government).

(Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>).

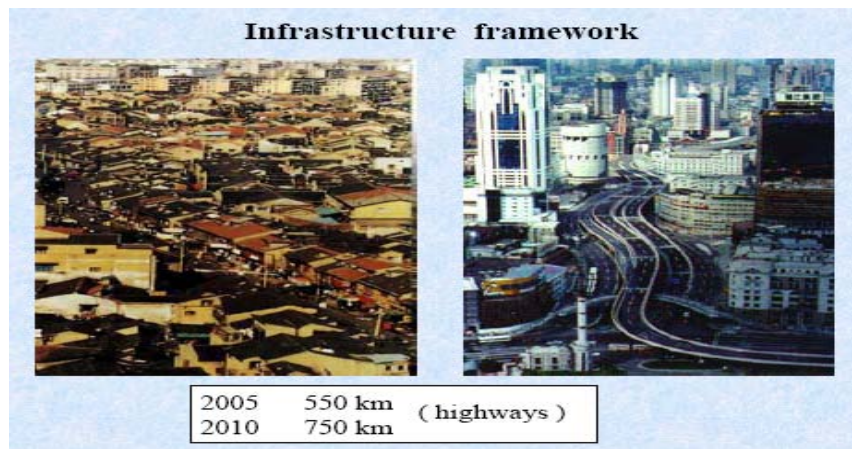
VI.3 Urban planning

The large-scale construction has given a lesson to all the municipality government to pay more attention to the advanced planning. 2001 could be called the year of urban planning to Shanghai. The New Master Plan of Shanghai (2000-2020) after 8 years hard work has been finally approved by the State Council of China, and the Ten-Five Plan of Shanghai (2001-2005) has been worked out. Today, Shanghai is becoming an international laboratory for experimental architecture and advanced urban planning concepts. The contribution of construction is truly significant. No other city in the world has planned and built so much within a period of 20 years. (source: http://www1.kas.de/international/konferenz02-06-17/shiling_en.html).

For the future development, Shanghai's architects and urban planner have already realized the critical situation of urban space, and put more attention to it. The key point of the urban space is to create an identity of Shanghai.

The updated master plan has given a very significant position to the construction of cyber harbor, air harbor and deepwater harbor.

Figure 4: infrastructure framework



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

VI.4. Water Supply Infrastructure in Shanghai

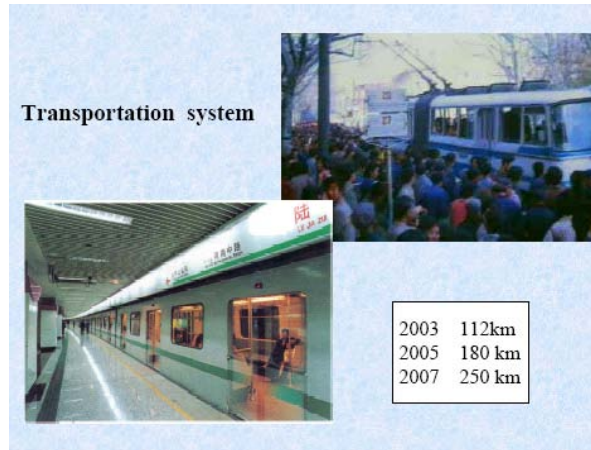
From the point of view for urban development, the water space should be made good use of. Historically, Huangpu River and Suzhou Creek brought much vitality to the city and constituted Shanghai's characteristics. The future development of Shanghai still has to consider the waterfront of Huangpu River, Suzhou Creek and the whole water network in Shanghai. A transformation work for the waterfront of Suzhou Creek is now put into operation within 17 kilometers long water channel. In 2000 - 2001, Shanghai is systematically working on the planning of the public open space for Huangpu River, and the Shanghai Urban Planning Administrative Bureau has organized an international conceptual urban design for an area of 20 km long and 22.6 km². In 2001, the urban design for the waterfront of the Suzhou Creek of a length of 13 km and with an area of 4.54 km² has been organized too. Since 1999, Shanghai has made a great effort to purify

its water and put the waterfront in order. New Bund, such as Southern Bund and Northern Bund along with the historical Bund are under planning.

VI.5. Transportation

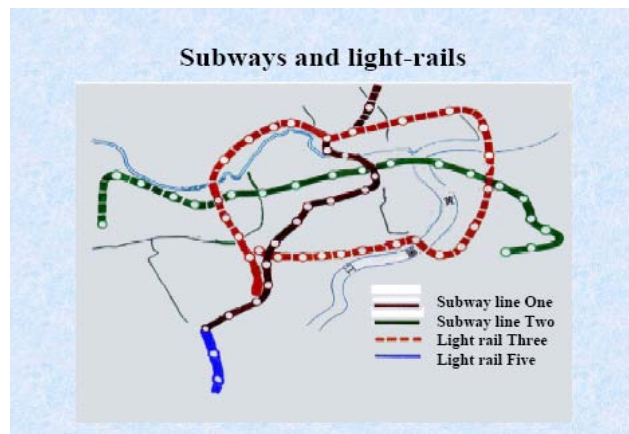
The transportation system in Shanghai is basically rely on mass transportation, including vehicles, subway, and light rail. The vehicles go thorough express way, bridges, and tunnel. Following is a summary of the whole system.

Figure 5: transportation system—bus to subway



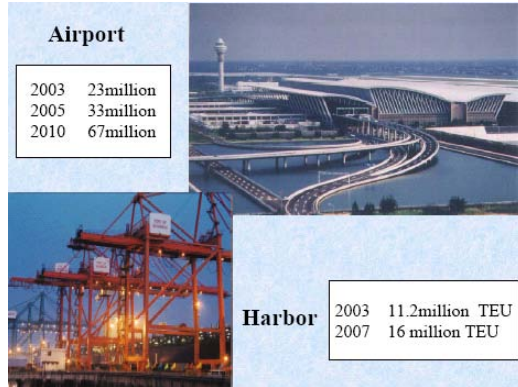
Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

Figure 6: map of transportation system



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

Figure 7: new Pudong international airport



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

Figure 8: Bridge over Huangpu River



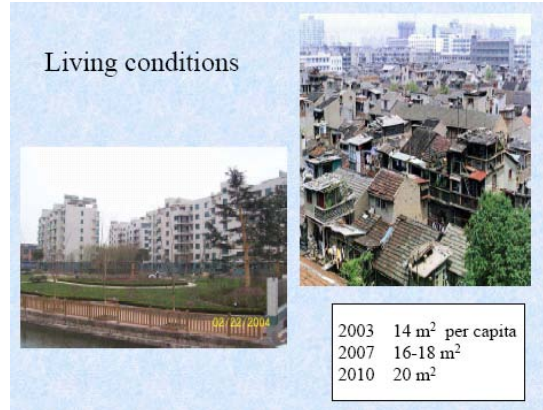
Nan Pu bridge, Shanghai

Source: <http://www.trajekt.org/magazine/?rid=1&tid=1&id=16>.

VI.6. Living conditions:

Living condition in Shanghai, especially in Pudong is much improved. Numerous high-rising condo buildings are built with managerial community-based units. The residential communities normally offer various simple services, such as gym, convenient shopping, cleaning, safety guard, parking, and day care. In 2003, the historically crowded Shanghai, in spite of urbanization and much more people reside in, average 14 square meters per capita, and this improvement will continue.

Figure 9: residence



Source: <http://www.trajekt.org/magazine/?rid=1&tid=1&id=16>.

VI.7. Finance:

With very few visible taxes, Pudong government plans to tax on income about 15%, but with several steps and exemptions. The local government also plans to promote attracting investment.

Preferential Taxation: 15% income tax:

- investment in infrastructure—
 - 5-year exemption
 - 5-year 50% reduction;
- manufacturing—
 - 2-year exemption
 - 3-year 50% reduction
- export & hi-tech enterprises—10% income tax after e & r periods.

Investment Promotion:

- Regional headquarters' of MNCs
- R&D institutions
- Hi-tech industries
- Logistics and distribution

(Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>).

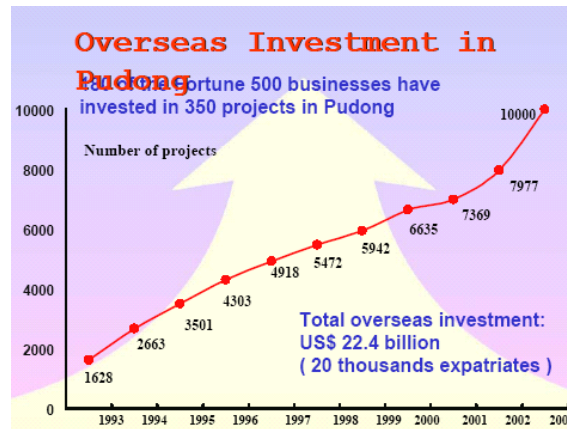
VI.8. Concentration of factors in globalization: endogenous economy vs. export oriented economy

The adjustment based only on internal economy structure is far from enough. For Yangtze River Delta and Pearl River Delta, more room for international competition is more important. For the rest of the country, this goal is difficult and they are supposed to form their regional competitiveness on their domestic economic positions first before serious attempts are made on international division of labor.

The central government policy gives the opportunity for regional development. The response determines the growth rate in regional development and market mechanism determines the policy effectiveness while the combination of endogenous development and export-oriented economy decides the sustainability of the regional competitiveness.

(source:http://216.239.51.104/search?q=cache:HtpUL1n04g8J:www.cdi.com.cn/new/publication/pdf/cdireview_200401_zhangyb.pdf+shanghai+metropolitan+strategy+policy+pudong&hl=en and http://www.cdi.com.cn/english/research_content.asp?id=112).

Figure10: overseas investment



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

For international trade, Pudong Waigaoqiao Free Trade Zone has the following main characteristics of:

- The largest one of 15 free trade zones in China
- One of the three comprehensive free trade zones in China (bonded warehouses, export processing, distribution, trade and logistics)
- Most important practice—exemption of customs duties
- Major role in Pudong development and in promotion of export-oriented economy
- Significant impact on Shanghai metropolitan area and Yangtze River basin
- Pilot area for reform of China's economic administrative system (foreign trade, hard currency and taxation).

The further steps for China's Free Trade Zones, including the Waigaoqiao one, are:

- Legal position (there are no legal regulations at national level at this moment)
- Trade barrier to be removed
- Loose control on hard currency within the zone
- Customs clearance procedure to be improved (4-6 hours for air –cargo, 24 hours for ocean shipping cargo)
- EDI to be introduced in customs supervision customs guarantee system to be simplified.

(Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>).

VI.9. Specialized district development inside Pudong

The new Pudong area is planned from the beginning as an integration of several specialized districts. Lujiazui, with the famous Oriental Pearl TV Tower, Jinmao Building, which is the highest in Asia, and International Conference Center, becomes the finance and trade center. Jianqiao is the industrial park, Zhangjiang is the silicon valley, and Waigaoqiao is the biggest free trade zone in China.

Figure 11: Lujiazui area—finance and trade



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

Figure 12: Jinqiao Industrial Park



Figure 13: Zhangjiang—silicon valley



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

Figure 14: Biggest free trade zone in China-- Waigaoqiao



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

VII. Future Pudong:

The prospects for 2005 Pudong include the project GDP as 200 billion yuan (RMB) with the following aspects.

- World-class infrastructure
- High-tech industrial belt
- New-round development of Huangpu riverside and urban renewal projects

- Redevelopment of countryside townships
- Close links with Yangtze delta and valley
- Market-oriented economy

Eventually Pudong will gradually complete a layout of “one axis and three belts”(Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>).

Figure 15: future layout of Pudong



Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>.

However, facing the achievements and opportunities, the challenges also coexist. There are several constraints for Pudong to overcome during the development (Source: <http://www.fias.net/Conferences/EcoZonesIndiaDocs/CBinghui.pdf>):

- Land short supply & land and labor cost
- Contrast in urbanization (education, public health, living standard)
- Lack of creative initiatives and more support for local small enterprises
- Broader vision for regional development and participation in Great West development and Northeast rejuvenation.