

## CITIES WITHOUT WALLS

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**F**or three thousand years, massive city walls protected the inhabitants of China's cities and kept other people out. After the triumph of the Communist revolution in 1949, almost all of the walls surrounding China's cities were torn down. Over the next 30 years, policies were adopted to try to stop the flow of rural migrants to cities, control city growth, restrict all economic activity to agents of the state and relocate large numbers of urban residents in rural areas. In effect, the government raised invisible bureaucratic walls around China's cities, limiting access to jobs, housing and other essential services. By 1978, China was still a poor, mainly rural economy, but in that year, China began to transform its centrally controlled economy by dismantling the state monopoly over production, commercialization and distribution and opening the economy to competitive forces. The invisible walls were expected to come down, but have they?

Between 1978 and 1995, China's gross domestic product (GDP) grew at a phenomenal average of 8 percent a year; its industrial output at an even more amazing 12 percent per year. Its cities became the main focus of this explosive economic growth, which was fueled by economic reforms that involved privatizing most farming activities, helping state industrial enterprises to be more independent and efficient and freeing prices and opening access to markets for most goods and services. A major rural-to-urban migration resulted in the population of cities rising from 18 percent of total population in 1978 to 29 percent in 1995.

Throughout China's history, its cities have been a source of economic opportunity and refuge. As more and more people find their way into China's crowded urban areas, will they continue to view the city as a haven and source of employment, or will cities become less attractive places to live? Agricultural land is disappearing at the rate of 1.5 percent a year, and in response, the government has prohibited non-agricultural use of agricultural land without central government approval. The result is that Chinese cities cannot expand, while most city dwellers will not move.

The economic experiments and the resulting turmoil and forced population movements of the Maoist years have been followed by 20 years of relative stability and government policies that have favored urban growth. Yet the industrial heart of the cities, the state enterprises, is in decline. The cities,

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therefore, contribute less revenues to the state budget. The invisible bureaucratic walls no longer keep out rural migrants, but they have created barriers that perpetuate urban-rural divisions within cities. Urban populations are segmented according to residency, job status and access to social services.

Several major themes inform this article. The first is efforts by government to affect the pattern of growth and population movements into cities, particularly through the control of urban investment and the regulation of rural-urban migration. Second is the privileged position held by state employees within the cities—access to residency status, urban jobs, housing, social services and welfare benefits. Third is the generally unimproved quality of urban life despite government reforms during the past 20 years.

The paper proceeds as follows: the first section gives the history of and reasons for urbanization in China, particularly during former Communist Party leader Mao Zedong's regime and the period of reform that followed. The next section discusses the state of environmental degradation, its causes and the government's attempts to respond. The third section explores the struggling state enterprises. The fourth section addresses the current transportation bottleneck in the cities and the prospect for improvements. The fifth section deals with the question of housing in urban areas. The article concludes with a list of proposed solutions.

Overcrowding, pollution, job insecurity, lack of housing, traffic congestion and inadequate public transport have become daily worries for China's urban population.

### THE BEGINNINGS OF CITY LIFE

Urban life has been a feature of Chinese civilization for some 3,500 years, ever since Shang Dynasty administrative centers were established along the Yellow River in the second millennium B.C.E. In the Warring States Period (403-221 B.C.E.), cities seem to have increased significantly in size, number and complexity. Statistics are lacking, but a literary source provides a population figure of 350,000 for one of the state capitals.<sup>1</sup> At the beginning of the common era, the Han dynasty capital of Ch'ang-an (modern Xian) had a quarter of a million inhabitants, wide avenues and a 16-mile wall encircling the city. By the seventh century A.D., Ch'ang-an—then the seat of the Tang dynasty and residence for one million people—had become the world's largest and most cosmopolitan city.<sup>2</sup> In the late Tang dynasty, central authority weakened and political power devolved to provincial capitals, which became regional centers for administration, trade and finance and the bases for growing networks of market towns.

When Marco Polo visited China in the thirteenth century, the locus of urban life had shifted to the lower Yangtze River delta. The great cities of China were Hangzhou, Suzhou and Nanjing. Before the Mongol conquest in A.D. 1279, Hangzhou was the largest city in the world with a population estimated at between 1 million and 2.5 million.<sup>3</sup> Polo marveled at Hangzhou, with its commerce, industry and dense population. Inhabitants of major European cities—most of which had less than 3 percent of Hangzhou's population—dismissed

Polo's account as sheer fantasy. China's level of urbanization was 500 years ahead of Europe, and for the next 500 years, these three cities remained preeminent. However, these and other Chinese cities ceased their rapid growth as the rural population increased and new market towns spread quickly.

The British were the first Europeans to obtain limited trading privileges in China, but they wanted much more, and in 1840, provoked China into fighting—and losing—the Opium War. The Qing emperor was forced to make concessions that had far-reaching effects on China's urbanization. A system of treaty ports was established, and thus began a process of urbanization resulting from the expansion of trade in coastal and riverine cities that led Shanghai to develop from a small fishing village to a major center of commerce. Continued foreign power maneuvering and military action by the British resulted in the 1858 Treaty of Tianjin. The treaty established four treaty ports along the Yangtze River and six more ports along China's coast, permitted foreigners to travel anywhere in China, established standard weights and measures for all treaty ports and stipulated that the English language serve as the medium of official communication. The preeminence of these cities and the treaty port system lasted until the 1930s.

#### **URBANIZATION AND ECONOMIC GROWTH UNDER MAO ZEDONG**

China's economy was buffeted in the 1930s and 1940s by the disruptions of the Japanese occupation and the civil war that followed. The economic recovery after the Communist triumph in 1949 was one of rapid urban population growth (7.2 percent annually between 1950 and 1957), but population movements were complex. Rural-to-urban flows were composed largely of returning ex-soldiers and other urban residents who had been driven out of the cities and towns by the war and peasants fleeing collectivization. Urban to rural flows involved huge dragnets to remove undesirables (vagrants, prostitutes) and ex-Kuomintang officials and soldiers from the cities. By 1955, the administrative system to control migration through population registration, which established eligibility for housing, employment, education, food, clothing and even marriage, had been put in place.

Yet this system was rendered ineffective when the Great Leap Forward (1958-1960) mobilized millions to the task of industrializing China and boosting agricultural production. During those six years of turmoil, 750,000 peasant cooperatives—created after the revolution—were merged into 26,000 people's communes, one million "backyard" iron and steel furnaces were built and hundreds of thousands of small industrial workshops were established. Mass labor was used in construction projects, particularly flood control and irrigation, and it is estimated that at one point, 100 million workers were involved in irrigation works. Millions of farmers (many of them women) were recruited to fill the urgent need for more industrial workers.

Despite the massive effort, the Great Leap Forward was a dismal failure. There were not enough farmers left to gather in the harvest, local officials were afraid to report grain shortfalls below quota levels and in many cases grossly

inflated output. Most small industrial establishments could not produce goods of sufficient quality or volume to justify their existence. The quality of many of the new dams and water control systems was substandard. In rural areas, the circle became increasingly vicious—quotas were further increased and farmers were forced to give up all their grain. Twenty million Chinese died of famine between 1959 and 1962, but many others, especially children weakened by years of malnutrition, died soon after.<sup>4</sup> The level of forced migration and mass labor mobilization defies quantification, but the net effect of this period of turmoil was that the urban population as a percent of the total population increased only slightly, from 16.2 percent in 1958 to 17.0 percent in 1963. The lessons from the Great Leap Forward and its aftermath have profoundly affected subsequent urbanization policies. For example, the government's strong interventionist urban policy during the 1960s and 1970s was driven by the necessity to keep urban population growth within the bounds of the food supply.<sup>5</sup>

Mao Zedong realized that for China to become an industrialized nation, it would have to concentrate its economic resources on developing the industrial capacity of China's cities. Urbanization and the growth of cities under the Maoist regime were closely linked to China's Stalinist model of economic development that emphasized central planning of the whole economy, carried out through nationalization of economic agents and managed pricing of inputs and outputs. Production was paramount, and a slogan was coined: "putting production first, standard of living second," which aptly expressed the Party's view at the time. Investments in activities not directly related to production, such as urban infrastructure and services were given very low priority, and in order not to strain existing facilities, the government instituted an explicit "anti-urban" policy. This policy is partly explained by the Party's ambivalent attitude toward cities, which were regarded as centers of corrupt bureaucrats, exploitative bourgeoisie and capitalists.<sup>6</sup> Treaty ports also were powerful symbols of 100 years of foreign intervention and were regarded by many as "alien excrescence" on Chinese soil.

Ironically, in the early Maoist years as the old walls of many of the larger cities were torn down, new invisible administrative walls were erected. These new walls effectively kept out the vast majority of rural inhabitants and led to increasing disparities between an urban state sector and the rural non-state sector.<sup>7</sup> Residency requirements were established to keep rural migrants out of urban areas, and compulsory state procurement of farm products was instituted to enable the cities and their industries to receive a guaranteed supply of grain and other food stuffs at artificially low prices. This led to wide urban-rural disparities, with urban per capita real income four to five times that of the rural sector.<sup>8</sup>

Beginning in 1964, China's urbanization was again greatly affected by the attempt to create a "Third Front" or self-sufficient industrial base in China's heartland to serve as a third line of defense if China was drawn into a war with a foreign power. The possibility of Chinese involvement in the Vietnam War, as well as a perceived threat of invasion from Taiwan and the loss of the Soviet Union as an ally, all led Mao to believe that war was a distinct possibility. As a

result, large industrial complexes and major transportation networks, again using mass labor, were constructed in cities in the inland provinces of Sichuan, Guizhou, Yunnan, Qinghai, Gansu and Ningxia.

With the inception of the Cultural Revolution in 1966, the movement of people became subject to ever more complex and politically motivated government actions. A massive urban exodus followed the forced movement of urban youth to re-education programs in the countryside and the resettling of political cadres and intellectuals in rural exile. Yet during the 1966-1977 span of the Cultural Revolution, the urban population actually increased, although not at the rate of national population growth. This reflects an influx of rural temporary or contract workers into urban areas, as well as much higher urban female participation, especially related to Third Front industry and construction, as well as the return of urban youth from the countryside towards the end of the period. During 1964-1975, 40 percent to 50 percent of the national investment budget was destined for Third Front projects and enterprises. Mao's policies were effective in simultaneously promoting industrial growth while slowing down urban population growth. Urban infrastructure was neglected and urban in-migration was strictly controlled through the household registration system and by limiting access to state-controlled jobs and rationed goods. Invisible walls were firmly in place, separating an urban elite from the vast rural majority of Chinese living in relative poverty.

#### URBANIZATION UNDER DENG XIAOPING

Economic reforms initiated by Deng Xiaoping, who became paramount leader in 1978, included: de-collectivizing farming and returning control of farms to the family unit, ending the state monopoly on economic activity, opening the economy to private interests and foreign investment, encouraging market forces by the gradual freeing of prices and decentralizing much decision making to local governments. These changes had an enormous impact on the process of urbanization. During Mao's regime, identity documents were used as an internal passport control to deny entry to the cities. Under Deng, the approach was more indirect. Entry into the city was not banned, but access to residency status and the benefits that accrued were withheld. Nonetheless, the invisible walls were beginning to crack.

China's official urban policy under the Dengist reform movement was to strictly control the growth of large cities, rationally develop the medium-sized cities and vigorously promote the growth of small cities and towns.<sup>9</sup> The government was concerned about the growing migration from rural areas to cities; urban infrastructure and services were already so overburdened that they could barely attend to the needs of the existing population. This gave rise to the strategy of "leaving the land but not the village," which provided a major impetus to promoting the growth of non-state enterprises in townships and villages. In fact, many private individuals registered as collectives to avoid higher taxes and other forms of discrimination against private ownership.

Between 1978 and 1990, township and village enterprises grew at 8 percent a year, double the annual rate of growth of state enterprises, and they grew fastest in suburban areas just outside major industrial cities. Much of the dynamism from this group came from collective enterprises, founded by groups of entrepreneurs in rural areas who usually invited the local government to share control rights. In return, they gained access to land and capital, transport and infrastructure services, and government protection of property rights. During this period, it is estimated that these enterprises hired 55 million rural workers, while state enterprises hired 15 million.<sup>10</sup> The creation of township and village enterprises, in combination with the rapidly expanding rural markets—which almost doubled to 59,473 between 1978 and 1990—was crucial in turning thousands of previously small settlements into newly designated towns by generating the required threshold of nonagricultural resident population and activities.<sup>11</sup> In 1978, state enterprises accounted for 77 percent of the value of industrial output. By the mid-1990s, nonstate enterprises had surpassed state enterprises, and accounted for 40 percent of the nation's total industrial output. The state's share had fallen to 34 percent.<sup>12</sup>

A 1979 economic reform that still is having a great impact on urbanization, especially in coastal cities, was the establishment of four special economic zones in cities that were in close proximity to sources of foreign capital in Hong Kong, Macao and Taiwan. Foreign investors were offered financial incentives, factory sites and cheap labor to produce exports. However, the government found it needed to invest far more in construction and support systems than expected. Transfer of advanced technology did not occur to the degree anticipated, workers lacked specialized skills and product quality was inconsistent. Nevertheless, the zones attracted considerable foreign investment, and in 1984, 14 more such zones were approved. The most successful have been zones located in Guangdong's Pearl River delta and closely affiliated with Hong Kong. By 1994, 6 million workers employed in these zones were producing 75 percent of Guangdong province's industrial output and exports.<sup>13</sup>

In the 1980s, many new towns and cities were designated. Based on the concept of the "town leading the development of the countryside," entire rural townships with their overwhelmingly rural population were turned into towns. Similarly, many counties were reclassified as cities. As a result, most newly designated cities and towns at the county level had huge agricultural populations. Also, rural counties were placed under the administration of large cities, so that agricultural output and rural labor could be geared to the needs of the cities. By 1988, 35 percent of all the counties in China were under the administration of its cities.<sup>14</sup>

With the abolition of the agricultural commune, there began a peasant exodus from rural areas that continues today. This floating population has no residency status or access to urban services. A 1990 survey of 11 large cities carried out by the Ministry of Construction indicated that the floating population made up 23.7 percent of the total urban population. If this were extrapolated to include the rest of the urban population, the floaters would amount to 70 million.<sup>15</sup> Other estimates put this population at 100 million or more.<sup>16</sup>

Informal rural-to-urban migration was much more important in terms of the human transfer involved than was the formal migration of contract labor to state enterprises. Informal migrants were classified as "seeking employment in industry and businesses" and they amounted to 87 percent of work-related migration and 67 percent of total urban in-migration to cities and towns in the second half of the 1980s.<sup>17</sup> The hiring of migrant rural workers on a contract basis to fill low-skill jobs was an attractive option for reducing an enterprise's social welfare burden. In Hangzhou in 1987, for example, contract workers in state enterprises amounted to 36.7 percent of total employment in construction, textiles, engineering and transportation.<sup>18</sup> Local governments tolerated the existence of a temporary urban population because "informal" migrants were not entitled to residency status or to receive grain allotments at artificially low prices. In 1985, the Ministry of Public Security made available temporary residence permits for migrants—a tacit admission of the scope of the rural invasion, the threat to public order it represented and the government's intent to better control it. More recently, rural migrants have been linked to rising crime rates, and cities have been cracking down on them. Beijing police have destroyed 100,000 illegally built shacks, and Shanghai has sent more than 100,000 migrants back to their villages.<sup>19</sup> In 1997, Guangdong, province targeted the "three without" population: those without credentials, fixed residences or legal sources of income. Provincial authorities rounded up 60,000 people (40,000 people reportedly voluntarily) and returned them to their places of origin.

Despite these government efforts to manage urban population growth, statistics from the World Bank estimate that China's urban population increased to 352 million in 1995, 29 percent of the total population.<sup>20</sup> Based on an average annual growth rate in the total population of 1.4 percent, and 5 percent in the urban population, the urbanized population as a percentage of the total will reach 36 percent in 2000 and 48 percent in 2010.<sup>21</sup> With roughly half its citizens in cities, China will have transformed into a truly urban society.

## URBAN GROWTH VERSUS THE ENVIRONMENT

Almost 50 years of industrialization and urban growth in China has come at a substantial environmental cost. The forces of economic reform unleashed in 1978 have dramatically improved the material well-being of many Chinese, especially in urban areas, but have done little to reduce pollution. The World Bank estimated that in 1995, air and water pollution damage to human health cost the equivalent of 8 percent of GDP—almost equal to the level of economic growth. Chinese researchers estimate a much lower level of damage, 3.5 percent, because they place a lower value on the economic loss attached to each premature death.<sup>22</sup> China's cities are blanketed by particulate and sulfur emission levels that exceed World Health Organization and China's own standards by two to five times.<sup>23</sup> Where does the air pollution come from? A growing economy has demanded more energy to power it. The use of coal, China's principal energy fuel, more than doubled between 1980 and 1995, to 1.3 billion tons and 78 percent of

total energy use.<sup>24</sup> Coal particles are particularly insidious, since they account for the most fine-sized (less than ten microns) airborne particles, which are the most damaging to human health. The inhabitants of the larger cities are exposed to 30 percent higher particulate levels and 60 percent higher sulfur dioxide levels than the residents of medium and small cities.<sup>25</sup>

New boiler technology can remove most sulfurs from coal and also improve its efficiency, and the government is being assisted in modernizing industrial boilers by the Global Environmental Facility. However, incorporating new boiler technology will be a very slow process related to boiler replacement rates in thousands of industrial plants. At the same time, industrial plants must install the equipment necessary to capture ash before it escapes into the atmosphere. But many large boilers do not have pollution control equipment—only 38 percent of Chinese power plant boilers were equipped with electrostatic precipitators in 1991.<sup>26</sup> Such equipment is unaffordable for the hundreds of thousands of smaller furnaces and kilns all over China that will continue to emit coal combustion particles directly into the atmosphere.

Finding a cleaner energy source is one solution, but China has no substitute for coal. Natural gas deposits are limited, and the government directs a third of this amount to state-owned fertilizer plants. Liquefied petroleum gas, a petroleum refinery byproduct, is becoming a more important energy source, but gas still plays a minor role (2 percent) in the total energy picture. China's oil supply is also constrained; it has been a net importer of oil since 1993. In spite of massive investment in hydroelectric facilities, hydropower's contribution to energy supply is falling. Therefore, most energy demand over the next 25 years will continue to be met by coal.

Wastewater treatment also is inadequate in China's cities. Annual municipal wastewater discharges tripled between 1981 and 1995, and municipal sewage accounts for 40 percent of wastewater discharges in cities. Although data is not available on discharges from households without sewage connections, they presumably increased by similar, if not larger, amounts during the same period.<sup>27</sup> Only 7 percent of sewage is treated, and water quality is so poor in China's rivers that 40 percent of all river sections presently being monitored cannot meet the lowest water quality classification and are effectively cesspools. Government statistics show that air pollutants have been growing much more slowly than economic output and that annual industrial wastewater discharges did not increase significantly, but ranged between 20 billion and 25 billion tons during the period 1981-1995, accounting for 60 percent of urban wastewater. However, these statistics are based on reports received from 67,956 mostly medium and large state enterprises, and does not include about 2 million smaller state enterprises and unregulated township and village enterprises.<sup>28</sup> Since the output of the latter group has been growing far more rapidly than that of the larger state enterprises, it is likely that actual industrial discharges and emissions are greatly understated by government statisticians.

Respiratory illness is the leading cause of death in China. Smoking has by far the biggest impact, but during the past decade, Chinese researchers have been analyzing the relationship between ambient air pollution and human health



in Beijing, Shenyang and Chongqing. These cities typify the air pollution danger in China's larger cities, and far exceed World Health Organization standards for sulfur dioxide and particulate emissions. The studies were able to correlate increasing emission concentrations and rapidly rising rates of chronic respiratory illness, pulmonary heart disease, premature death and hospital occupancy. By extrapolating the data to include other Chinese cities, the World Bank has estimated that 240 million people are exposed to serious air pollution resulting in an estimated 178,000 premature deaths, 346,000 hospital admissions, 6.8 million emergency room visits and 4.5 million work days lost per year.<sup>29</sup> Water borne diseases accounted for just 1.5 percent of total deaths in 1990,<sup>30</sup> but sewage collection and treatment has lagged far behind the level of urban growth, and urban sanitation has become a serious problem.

Government attempts to counter these disturbing trends include providing a legal basis for protecting the environment as expressed in the 1982 Chinese Constitution. As well, a State Environmental Protection Commission was established in 1979 to develop national environmental policy and a National Environmental Protection Agency was formed in 1988 to carry it out. The 1989 Environmental Protection Law reflects four guiding principles: environmental protection must be integrated and coordinated with economic development; pollution prevention should receive as much emphasis as pollution control; polluters should pay for environmental degradation (the polluter pays principle); and more effective management is required to improve environmental quality. Furthermore, this law prohibits new industries from locating near populated or protected areas and permits relocation or closure of industrial plants that are in violation of the law.

To achieve these objectives, China has relied on four regulatory instruments: the first two are submission of satisfactory environmental impact assessments before approving any new projects and the "three synchronizations" licensing system, which requires affirmation of each new project at the levels of design, construction and initiation of operations. This is to ensure that the project remains in conformity with the impact assessment. The final two instruments are pollution levies charged against concentrations of pollutants above permitted levels and, most recently, wastewater discharge permits based on volume emitted.

The flaw in Chinese policy is its focus on controlling pollution concentrations at the source, rather than addressing the volume of pollution being emitted into the wastewater system. The amount of pollution levies is typically set below the marginal cost of effluent treatment. Although individual enterprises may be able to meet the source concentration requirement, overall air and water quality may be adversely affected through the sheer volume of pollutants emitted. Low levies encourage enterprises to pay the fee rather than invest in treatment facilities or cleaner production technology. In practice, local government officials look the other way, as many enterprises only pay a portion of the levy, which managers regard as just another cost of doing business.<sup>31</sup>

Although the government has recently been tougher on the worst urban and rural polluters—to the extent of even closing down some 60,000 of the

smaller township and village enterprises—actual levy collections continue to fall far short of amounts assessed.<sup>32</sup> The capacity of local environmental bureaus to enforce the regulatory system is limited by financial and staff constraints and the intervention of local governments to protect favored enterprises. Most bureaus focus investigations on large polluters, where they get more bang for the buck, while small enterprises are visited infrequently, if at all. The result is that after 20 years of reform and economic growth, pollution levels have not fallen significantly, government statistics to the contrary notwithstanding.<sup>33</sup> Although the regulatory and administrative structure to control pollution is in place, a system to force regulatory compliance is missing. Attitudes and behavior need to change, and people need to accept that economic growth should not take place at the expense of the environment. Rather, development should sustain the environment.

### THE FUTURE IS GRIM FOR STATE ENTERPRISES

There are 8 million industrial enterprises in China, about 6 million of which are referred to as family or individually owned because they have fewer than eight employees. Collective, private and joint-venture enterprises located in townships and villages are often lumped together as "township and village enterprises," and amount to 1.9 million enterprises. Only 118,000 are owned by governments at the national, provincial and municipal level and are classified as state-owned enterprises. Almost all are located in cities, which have 22 percent to 30 percent of their central core occupied by industry (similar to cities in industrialized socialist countries but five to seven times more than in other Asian and Western cities). State enterprises tie up more than two-thirds of industrial assets while only contributing one-third of industrial output, a testament to their terrible inefficiency.<sup>34</sup>

State-owned enterprises dominate major mining and heavy industry, but are dependent upon technology that is up to 50 years old. Their plants are obsolete, inefficient and highly polluting. They have survived by receiving fiscal subsidies and subsidized credit through the financial system. Worker productivity is low; many plants have not been built to economic scale, and without fundamental restructuring cannot become efficient. Under-utilization of existing productive capacity has become a grave problem, with large inventories piling up. Firms are losing clients to more efficient domestic and foreign producers and are responding by reducing production and lowering prices, laying off workers, eliminating layers of administrative and managerial staff, linking wages and bonuses to output, reducing per unit production costs and shifting to more value-added production.

For many, cost cutting has become as important an objective as maximizing profits. In short, they are beginning to act like their Western counterparts, but are ill-equipped to win this competition. They need to modernize by importing new technologies, but they lack capital and their high levels of

debt severely hinder their ability to borrow more. Layoffs are limited because worker mobility is constrained by ties to enterprise-specific welfare benefits. Many excess workers are marginally skilled and their re-employment prospects are dim. The burden of social expenditures is so heavy for most state enterprises that they have no surplus left for investment purposes.

The Chinese government states that one-fifth of all commercial bank portfolios are made up of overdue loans to state enterprises.<sup>35</sup> Not surprisingly, commercial banks are now quite reluctant to lend state enterprises more funds. Joint ventures with foreign partners can help only a small fraction of state enterprises. The government limits the amount of funds that can be raised on Chinese equity markets, and few state enterprises would be able to meet the listing requirements of Chinese stock exchanges. Equity markets, therefore, cannot be expected to become a source of investment financing for the vast majority of state enterprises.

Another looming crisis is the increasing number of workers made redundant by plant modernization. The government is responding by limiting workers officially classified as unemployed (separated from their work unit, they have no access to supporting services), and categorizing most redundant workers as "laid-off." Such workers are not separated from their work unit and receive a minimal stipend, supplemented by the municipal government. The government estimated the number of laid-off workers at the end of 1997 at 11,510,000, a number expected to double over the next three years.<sup>36</sup> At the same time, the downsizing of government is expected to result in an additional 4 million redundant civil servants by the year 2000.<sup>37</sup> Sensing big trouble, the Central Committee of the Communist Party and issued a circular in July 1998 announcing that solving the problem of laid-off workers was the Party's highest priority. It pledged to re-employ 50 percent of laid-off workers by the end of 1998.<sup>38</sup> This pledge puts local party officials and municipal governments in an enormously difficult position: new industrial jobs cannot be created fast enough to meet the needs of laid-off workers. The government's urgency is compounded by the fact that 6 million people enter the job market yearly, while economic growth has begun to slow in 1998.<sup>39</sup> Each 1 percent decline in economic growth means 1.25 million fewer jobs are created. From where will the jobs come?

The continued decline of state enterprises illumines the government's dilemma of maintaining political leadership while promoting economic reforms that loosen its control over the economy. The government, however, has not really loosened its control over the enterprises themselves because most state enterprises cannot survive on their own. Were they to fail the government would have difficulty preserving its political and moral authority in the face of widespread urban worker discontent. The trickle of laid-off workers has become a flood and now is the time for action. The central government needs to move quickly to establish national programs to relieve state enterprises of their social welfare burden and to help redundant workers find new jobs.

### THE URBAN TRANSPORT BOTTLENECK

Chinese cities are characterized by two phenomena that result in a transportation nightmare—very high population densities and very low road space per capita. On main thoroughfares of China's large cities, bicycles mingle with motorcycles, cars and vans and engage in a dangerous minuet of avoidance and near collision, and side streets are narrow and crowded with cars, pedestrians, bicycles and hand (or bicycle) carts. Space devoted to roads in the three major cities of Beijing, Guangzhou and Shanghai varies from 8 percent to 17 percent of total area, with the smallest space in the city center. This compares with densities of 18 percent for Seoul, 23 percent for Tokyo and 35 percent for London.<sup>40</sup> International experience shows that road construction in itself provides only a short-term solution to congestion because it attracts motor vehicle traffic from other roads and other forms of transport shift to motor vehicle use. Therefore, transport demand will always exceed supply no matter how efficient the road network. Governments therefore should give the same priority to controlling and managing this demand and controlling traffic flows and volume as they do to road construction.

Many Chinese still live grouped around tiny courtyards, accessible only by alleys or one-lane streets. As cities expanded, roads were built, but the courtyard style of living was maintained by building large 4-to-6-lane streets bordering the living areas. Access into them was still provided only by narrow lanes and alleys. Streets and roads never kept up with the growth in population and traffic, even after multi-story apartment complexes began to be built on city blocks ringed with streets on four sides. Government policy was largely to blame, since transport investment was considered "unproductive" by Mao Zedong and was given low priority during his lifetime. The situation has improved somewhat since Mao's death more than 20 years ago, but annual transportation investment in China has averaged only 1.5 percent of gross national product (most other large developing countries invest 2 percent to 3 percent annually). Between 1980 and 1993, total urban road length increased from 29,485 kilometers to 104,897 kilometers, representing an increase from 3.3 kilometers per 10,000 of population to 6.3 kilometers. The number of buses increased two and one half times during the period, but congestion reduced the average speed of buses by half.<sup>41</sup>

Public transport carries three-quarters of total urban passenger volume, but fares are kept below operating costs. The result: by 1993, 70 percent of public transport operations were losing money.<sup>42</sup> The decline in passengers has been steady and has been absorbed mostly by increasing bicycle use. Public transport is also facing strong competition from the phenomenal growth of minicabs and taxis. During Mao Zedong's regime, heavy central government intervention at the enterprise level led to gross inefficiencies and poor performance. After 1978, policymakers attempted to separate government administration from enterprise operations as part of the economic reform objective of maximizing efficiency and profit. However, the concept of public transport as a government-provided entitlement has outweighed the reform objective.

In the last decade, motorcycle use, mainly with highly polluting two-stroke engines, has been the fastest growing form of urban transport and has become a major factor in increasing congestion. Since 1992, Guangzhou, which has the nation's largest motorcycle population, has imposed annual quotas on the issuance of new licenses.<sup>43</sup> Automobile ownership also has been growing rapidly, but China still has the fewest automobiles of any Asian nation. In 1994, there were only eight motor vehicles per 1,000 people. Urban ownership is much higher, with 24 cars per thousand in Beijing, 21 per thousand in Guangzhou and 15 per thousand in Shanghai. Rates of ownership growth are even more significant. Between 1984 and 1994, the annual growth rate of new passenger vehicle registrations was 20 percent, while the number of privately owned cars increased by 28 percent a year.<sup>44</sup>

The government's motor vehicle development policy is based on a 1994 study carried out by the State Planning Commission. It proposed speeding development of a domestic automobile industry to a projected annual production capacity of 3.5 million cars by 2010, of which 90 percent would be sold to the domestic market. The policy explicitly encourages private automobile ownership. By 1996, there were 125 automobile assembly plants in China, with seven joint ventures with major foreign partners accounted for three-quarters of total 1996 production of 1.2 million vehicles. World Bank projections made in 1995 and based on economic growth and incomes rising 9 percent a year predict the number of cars per thousand of population will increase to 21 in 2000, 51 in 2010 and 127 in 2020.<sup>45</sup> It now appears that such levels of economic growth cannot be sustained, and a more realistic estimation would be doubling the number of cars per thousand nationally every ten years, with triple or quadruple growth in the cities.

With traffic volumes increasing and speeds in city centers falling, congestion has become a vicious upward spiral, contributing dramatically to the already high economic and environmental costs. Engines in slower-moving cars burn twice as much fuel as cars travelling at normal speed, leading to a sharp increase in emissions per kilometer driven. Vehicles can accomplish fewer trips, so more of them are necessary. In addition, accidents have been rising steadily with the increased congestion. In Beijing, traffic fatalities reached 60 per 10,000 vehicles in 1994, compared to 1.6 per 10,000 for Tokyo.<sup>46</sup> Most economists blame the increasing congestion on the systematic underpricing of urban public transport and inadequate traffic management.

Although vehicular emission standards have been in place since 1983, they are much more lax than international standards. China allows 40 times more carbon monoxide, eight times as much nitrogen oxide and six times as many hydrocarbons as U.S. standards.<sup>47</sup> But even these standards are not enforced, and most Chinese vehicles far exceed allowed emission levels. The government recently announced that lead would be phased out of gasoline by the year 2000.<sup>48</sup> This is a highly optimistic assessment, not only because refineries will have to be reconfigured, but also because of the huge and costly task of building separate storage and distribution systems. The United States, in contrast, allowed 10 years for the removal of lead from all gasoline and the construction of a parallel system for producing and distributing unleaded gasoline.

Can China avoid a transportation crisis like those faced in neighboring capitals such as Bangkok and Jakarta? The World Bank thinks so:

China's unusually low dependence on automobiles, the unusually high density of its cities and the strength of its administrative capacity at both the national and municipal levels is unique among developing countries. China can take advantage of these circumstances to create a new framework for urban transport and environmental management.<sup>49</sup>

A new direction would require new strategies to better use the very limited available land, devote more investment to transport infrastructure, upgrade traffic management, improve fuel quality and eliminate subsidies in fuel prices. The centerpiece of this strategy would be to support public transportation over the automobile industry.

The current approach for dealing with congestion in large cities is to follow Beijing's example and build a series of express ring-roads circling the city. This is a very expensive solution, which is founded on the questionable notion that it is possible to build a way out of congestion. As an alternative, existing arterial roads linked to public transport routes should be improved in combination with better traffic management to improve traffic flows. Satisfactory public transport alternatives to bus transport are only being developed in Beijing, Shanghai and Tianjin, which have light rail systems. Yet all three systems together total only 65 kilometers in length. Guangzhou, Chongqing, Shenyang and Qingdao have begun construction or are contemplating doing so.

Still, underground or surface light rail is simply too expensive for most Chinese cities. Every effort therefore, should be made to make public bus transport more available, attractive and efficient. It should follow along highest density corridors and fares should be raised to at least cover operating and maintenance costs. Most Chinese cities already exclude freight vehicles from city centers during the day. Regulations similarly could exclude automobiles from especially congested portions of city centers and, during peak traffic hours, limit automobile access to major arterial roads with high congestion to high occupancy lanes. Vehicle registration quotas may have some merit but are too open to corruption. The government would be well advised to reconsider its opposition to increasing public transport fares and taxing fuel.

## HOUSING IN TRANSITION

In 1949, after decades of war and dislocation, housing was in a dreadful state. More than half of the nation's housing stock was said to be substandard. In Shanghai one-fifth of the people lived in slum conditions, packed into shacks or dilapidated structures with no water or sewage. In Shanghai, per capita living space declined from 3.70 square meters to 2.26 square meters between 1949 and 1956. In Changsha, three-quarters of residential areas were classified as

slums, and in Chengdu, per capita living space in its slums averaged 1.6 square meters.<sup>50</sup> Little was done to remedy this situation. A 1955 survey of 166 cities revealed that one-half of all residential housing was too old or unsafe to be occupied, and in 1956, 580,000 square meters of housing collapsed in 175 cities.<sup>51</sup>

One approach was to demolish old housing; in some cities one-fifth of the total stock was demolished. The government soon found that for every square meter demolished, two square meters of new space were required to resettle the displaced individuals. Thus greater efforts were made to upgrade existing housing. The state assumed major responsibility for providing urban housing through central government budget allocations to municipal housing bureaus or to state enterprises for building rental units. By keeping wages low, the government collected an implicit income tax from civil servants and workers. In return for this, they received housing and other benefits through their work units. Rents were token payments, fixed at less than 1 percent of the recipient's annual wage.<sup>52</sup>

During the Cultural Revolution, local planning and housing bureaus were shut down. It was not only almost impossible to obtain any materials to repair or maintain buildings, but to do so would have run the risk of being labeled "bourgeois." Ironically, the subsequent dislocations and massive transfers of young people to the countryside during the Cultural Revolution raised average per capita living space nationally to 5 square meters.<sup>53</sup> The housing stock continued to deteriorate, although in the latter part of the Cultural Revolution the government built new housing for returnees from the countryside. These trends are illustrated in the amount of housing built during each of China's first four five-year plans, spanning most of the Maoist period. It ranged from a low of 10.8 million square meters in the Third Plan (1966-1970) to a high of 25.2 million square meters in the Fourth Plan (1971-1975).<sup>54</sup>

At the end of Mao Zedong's regime, 38 cities with more than 500,000 people contained the majority of the nation's medium and large industrial enterprises. Most workers lived with their families within walking or cycling distance of their employment. High density housing near the work unit in self-contained neighborhoods reduced the per capita economic cost of urbanization and facilitated political control through neighborhood revolutionary committees.

The leadership that emerged in the late 1970s understood that the Communist Party's major constituency was urban rather than rural dwellers, and that they could continue to ignore the deterioration in housing and other aspects of urban life only at the Party's peril. China's first-ever national housing conference was held in 1978 with the stated objective to build more housing in the successive seven years than had been built in the previous 28 years. Total capital investment in the national budget in non-productive investment increased from 18.8 percent in 1976 to 45.5 percent in 1982, and one-quarter of the latter funds were dedicated to housing construction. Housing construction almost doubled between 1978 and 1979 to 62.6 million square meters and rose in 1982 to 90 million square meters. By 1981, state enterprises were financing and building more than half of the new construction.<sup>55</sup>

Nonetheless, the condition of housing continued to be a major issue. The housing problems in China's largest cities continued to be worse than in smaller cities. This resulted from the large post-Mao influx of people returning from forced out-migration during the Cultural Revolution. By 1982, China's 15 cities of one-million-plus citizens and two more key cities had average individual living spaces of 3.6 square meters (Chongqing and Chengdu in Sichuan province had the lowest average of 2.5 square meters), as compared to the national urban average of 6.3 square meters.<sup>56</sup>

Also lacking was the concept of equity, as reflected in the distribution of housing benefits. Organizations that owned housing stock took care of their own, with state enterprise employees and municipal civil servants receiving more preferential treatment. High officials and other influential citizens obtained the best housing. A common family strategy was to have one member of the household working in either the government or the state enterprise sector so as to assure access to housing. This tiered system extended to sales as well. Without a market for public housing, units were priced at a fraction of the cost of new privately financed housing and sold primarily to city and state enterprise employees.

Housing prices were based on the financial capacity of the work unit and on the employee's ability to pay. Further subsidies were granted for age and seniority. Without market pricing, actual values were very difficult to determine, particularly since much public housing was so poorly maintained. However, because rents had been so heavily subsidized, the ratio of annual rent to housing price was still very high and provided little incentive to purchase, especially since there was little readiness on the part of the government to raise rents.

In the 1980s, privately financed housing construction became more important, and by 1990 it accounted for 12.6 percent of all housing built since 1949.<sup>57</sup> During the 1980s, the government carried out several housing commercialization experiments. Monthly rents were increased and housing coupons redeemable for housing repair or purchase were issued to offset the rent increase. Usually 30 percent was required as down payment with the balance due in 10 to 15 years.<sup>58</sup> Many local governments provided subsidies of up to 70 percent of the purchase price to renters of state housing. But this simply maintained the inequities and subsidies of the existing system and was not financially sustainable.<sup>59</sup> A State Council directive in 1988 banned deep discounts and encouraged alternative approaches. Two small cities were selected to experiment with raising rents and wages on a limited basis, and specialized credit institutions were established in both cities to manage municipal housing funds. In 1991, the directive was made applicable to all cities, and a national schedule of rent increases was adopted, with the objective of eventually having rents cover at least current operating costs and depreciation. However, no serious attempts were made to raise rents, and demand for individual loans was not forthcoming. In effect, the program failed, and even its modest targets were unmet. The major difficulty remained that extremely low rents provided no incentive to purchase rental units, and borrowing was not an attractive option because of credit institutions' unfamiliarity with mortgage lending procedures, short lending maturi-



ties and excessive interest rates and fees. In the early 1990s, the rent of a typical apartment of 52 square meters was 18 *renminbi*, or U.S.\$2 per month, less than 3 percent of household income and far less than would be required to meet the operational and maintenance costs of the rental unit.<sup>60</sup>

A bubble of speculation in the commercial and luxury residential property markets in major cities precipitated a real estate crisis in the early 1990s. An overheated economy fueled a wave of speculation leading to a massive outflow of funds from the banking system. More than 100 billion *renminbi*, U.S.\$11 billion, were channeled illegally into real estate markets and the new stock exchanges in Shanghai and Shenzhen.<sup>61</sup> Real estate speculation began as an attempt to get rich quickly by investing in the special development zones. The rapid appreciation of property values in the zones yielded extraordinary returns, because the land leases often were sold at nominal cost by officials who received kick-backs or other favors. Real estate investment in 1992 increased by 117 percent over the previous year and in the first half of 1993 by an additional 115 percent.<sup>62</sup> Speculators raced to get into the action, and the number of real estate developers increased from 6,290 in 1991 to more than 20,000 in 1993.<sup>63</sup> Prices were rising at annual rates of 40 percent to 100 percent.<sup>64</sup> The housing market could not absorb this level of construction, the bubble broke in mid-1993, prices plunged and 50 million square meters of commercial housing space remained unsold.<sup>65</sup> The State Council took action in July 1993 to sever incestuous relationships between developers and financial institutions and to introduce bidding procedures for all land and housing sales. Because of this fiasco, the commercial housing market has been largely stagnant since 1994.

At the end of 1997, per capita living space for the nation was at an all-time high of 8.8 square meters.<sup>66</sup> In March 1998, new Premier Zhu Rongji announced a new government program for ending the welfare housing system and replacing it with a fully commercial system. As a first step, state employees were given the choice of buying their housing at an established "cost" price much lower than comparable market prices, or of paying a much higher rent once the new system goes into effect. Housing would be paid for through direct employee subsidies and loans either from municipal public housing funds or bank loans. State employees were given until July 1—the date the new system was to go into effect—to complete their purchase. Although by mid-year the start-up of the new program had been put on hold, the message was clear. Municipal governments have begun selling off substantial amounts of public housing. This time, the demand is there, because for the first time the government is serious about raising rents substantially in line with a cost recovery formula for those who choose not to buy. Also, municipal governments have been granting subsidies of up to 80 percent of the unit cost for those that choose to buy so-called "economic" housing. This option is a mix of state-control and free-market principles, with local governments providing subsidies to tenants and guaranteed occupancy to builders if builders' costs come in under a government set price—a price, however, which must ensure a profit to builders.

The major challenge for the future will be to reverse the unequal distribution of low-rent public housing and to develop a private urban housing market. The government appears uncertain about how fast to proceed in commer-

cializing the housing market. It will be a slow and difficult process for several reasons: the complexity of the issues, the lack of clarity in Chinese property rights law, the immaturity of the property markets, inadequate financing mechanisms and zoning regulations and unenforceable building codes.

### CITIES WITHOUT WALLS

The economic experiments and the resulting turmoil and forced population movements of the Maoist years have been followed by 20 years of relative stability and government policies that have favored urban growth. Yet the industrial heart of the cities, the state enterprises, is in decline, and the cities are therefore able to contribute fewer fiscal revenues to the nation. The invisible bureaucratic walls no longer keep out rural migrants, but they have created barriers that perpetuate urban-rural divisions within cities, whose populations are segmented according to residency, job status and access to social services. These divisions contribute greatly to social instability and unrest.

China's leaders see economic growth as the means of achieving world superpower status and of providing the jobs that must be created every year to keep the specter of unemployment at bay and enable the Communist Party to keep the support of the people. China's leaders condemn environmental degradation and support cleaning up the environment. Yet, when difficult choices have to be made, it is the environment that suffers. Environmental pollution is so severe—especially in the cities—that maintaining output of obsolete and polluting enterprises can no longer be justified because the environmental cost is too great.

Can Chinese cities become cities without walls of any kind, with no artificial barriers to human ambition and achievement? With the opening up of the economy under Deng Xiaoping, the barriers limiting the movement of people and their access to jobs began to crumble. Yet the invisible walls still exist, and their effects are pernicious. They segment society by creating divisions among urban residents, especially between those who work for the state and those who do not, and they help foster widespread cynicism, which results in a perception of the government as incompetent at best and corrupt at worst. What follows are suggested solutions to the problems discussed in this paper.

**The Environment:** Land is simply not available for relocating polluting enterprises away from residential neighborhoods. For the foreseeable future, China's cities will have polluting industries and power plants in the midst of the most dense population centers. Greater efforts must therefore be made to stop polluters. Not only the concentration, but also the volume of particular pollutants in wastewater must be controlled. Pollution levies must be increased to at least the marginal cost of emission control or effluent treatment, and collection of the levies must be greatly improved through strong political support from the mayor's office in each city. To really have a lasting impact, especially in China's smaller cities, towns and villages, fundamental changes in attitudes and behavior will have to take place. The central government should launch an education

campaign that reaches all levels of society. The basic theme should be that economic and environmental goals are inseparable, and sustaining and preserving the environment is therefore essential to achieving a socialist market economy.

**State Enterprises:** China must act quickly to speed up the creation of a properly funded, truly national, social welfare system, which distributes the cost, based on ability to pay, among enterprises and their workers, national and local. National and local governments must waste no time in initiating massive reeducation and job retraining programs for workers in danger of losing their jobs. To provide employment during the difficult transition ahead, public works programs targeting redundant workers should be created at the national and local levels.

**Transportation:** China desperately needs a new long-term strategy for city transport development focusing on higher investment, better land use planning, substantially improved coordination among the administrative entities involved and clear policies combining efficient traffic management with appropriate price and fiscal controls to influence demand. Key elements of such a strategy include eliminating gasoline price subsidies, speeding up the nationwide replacement of leaded gasoline with unleaded and making public transport competitive and more efficient (at least able to cover its operating and maintenance costs). Traffic management must become proactive in limiting access to city centers for particular types of vehicles at particular times of the day, using high occupancy lanes during rush hours and separating bicycle traffic from motorized traffic.

**Housing:** Those who cannot afford to buy housing and cannot qualify for financial assistance should be offered housing sites and services, with the government providing a basic house foundation, water, sewage and electricity connections. The recipient would receive title to the property and would be responsible for paying utilities and building a house upon the foundation. Availability of essential services, possession of title and access to housing finance would provide the motivation for the owner to build a house. In effect, a small investment by the government would lead to "privatized" housing construction. For those who can qualify for mortgage lending, more specialized non-state mortgage lending institutions need to be developed to aid low and middle income home buyers who want to purchase their homes. These entities should be capable of developing a resource base to enable them to lend for 20 to 30 years. Creating such a system will be a long-term task; the government should begin immediately to provide the necessary legislation, regulatory structure and institutional by-laws for such a system to develop.

The actions proposed above would go far in achieving the goals of bringing down the invisible walls, healing the divisions and creating livable cities in China.■

# NOTES

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<sup>2</sup> Charles O. Hucker, *China's Imperial Past* (Stanford: Stanford University Press, 1975), 139.

<sup>3</sup> John King Fairbank, *China, A New History* (Cambridge: Harvard University Press, 1992), 92.

<sup>4</sup> Jonathan Spence, *The Search for Modern China* (New York: W.W. Norton & Co., 1990), 583.

<sup>5</sup> Kam Wing Chan, *Cities With Invisible Walls* (Hong Kong: Oxford University Press, 1994), 39.

<sup>6</sup> Xiao Bin Zhao and Li Zhang, "Urban Performance and the Control of Urban Size in China," *Urban Studies* 32, nos. 4-5 (1995): 814.

<sup>7</sup> Kam Wing Chan, *Cities With Invisible Walls* (Hong Kong: Oxford University Press, 1994), 147.

<sup>8</sup> Nicholas Lardy, *Agriculture in China's Modern Economic Development* (Cambridge: Cambridge University Press, 1983), 157-164.

<sup>9</sup> Megacities are those with more than 1 million in population, large cities have populations between 500,000 and 1 million, medium cities have populations of 200,000 to 500,000 and small cities have less than 200,000.

<sup>10</sup> Kam Wing Chan, *Cities With Invisible Walls* (Hong Kong: Oxford University Press, 1994), 111.

<sup>11</sup> *Ibid.*, 129.

<sup>12</sup> The World Bank, *China—Chongqing Industrial Pollution Control and Reform Project* (Washington, DC: The World Bank, 1996), 4.

<sup>13</sup> Shadih Yusuf and Weiping Wu, *The Dynamics of Urban Growth in Three Chinese Cities* (Washington, DC: The World Bank and Oxford University Press, 1997), 125, 129.

<sup>14</sup> Kam Wing Chan, *Cities With Invisible Walls* (Hong Kong: Oxford University Press, 1994), 105.

<sup>15</sup> *Ibid.*, 45.

<sup>16</sup> Orville Schell and David Shambaugh, eds., *The China Reader: The Reform Era* (New York: Vintage Books, 1999), 362.

<sup>17</sup> Kam Wing Chan, *Cities With Invisible Walls* (Hong Kong: Oxford University Press, 1994), 120.

<sup>18</sup> *Ibid.*, 131.

<sup>19</sup> *China Daily*, October 11, 1997.

<sup>20</sup> The World Bank, *China 2020, Clear Water, Blue Skies* (Washington, DC: The World Bank, 1997), 5.

<sup>21</sup> Kam Wing Chan, *Cities with Invisible Walls* (Hong Kong: Oxford University Press, 1994), 152.

<sup>22</sup> The World Bank, *China 2020, Clear Water, Blue Skies* (Washington, DC: The World Bank, 1997), 23.

<sup>23</sup> *Ibid.*, 1.

<sup>24</sup> *Ibid.*, 45-46.

<sup>25</sup> *Ibid.*, 9.

<sup>26</sup> *Ibid.*, 50.

<sup>27</sup> *Ibid.*, 13.

<sup>28</sup> *Ibid.*, 12.

<sup>29</sup> Ibid., 19.

<sup>30</sup> Ibid., 20.

<sup>31</sup> The World Bank, *China—Chongqing Industrial Pollution Control and Reform Project* (Washington, DC: The World Bank, 1996), 3.

<sup>32</sup> These assessments are based on the author's discussions with government officials.

<sup>33</sup> The World Bank, *China 2020, Clear Water, Blue Skies* (Washington, DC: The World Bank, 1997), 12.

<sup>34</sup> Neil C. Hughes, "Smashing the Iron Rice Bowl," *Foreign Affairs* 77 (July/August 1998): 70-71.

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<sup>36</sup> "China Laid-off Workers Find New Careers in Private Sector," *China Daily*, March 9, 1998.

<sup>37</sup> "China Joblessness is Key Reform Challenge," *China Daily*, April 27, 1998.

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<sup>39</sup> "Can China Avert Crisis?" *Business Week* (March 16, 1998): 44.

<sup>40</sup> Steven Stares and Liu Zhi, "Theme Paper 1: Motorization in Chinese Cities: Issues and Actions," *China's Urban Transport Development Strategy, Proceedings of a Symposium in Beijing, November 8-10, 1995* (Washington, DC: The World Bank, 1996), 68.

<sup>41</sup> Ibid., 35.

<sup>42</sup> Zhou Ganshi, "Keynote Address 3: Urban Transport Problems in Chinese Cities: Causes, Trends and Options," *China's Urban Transport Development Strategy, Proceedings of a Symposium in Beijing, November 8-10, 1995* (Washington, DC: The World Bank, 1996), 36.

<sup>43</sup> Steven Stares and Liu Zhi, "Theme Paper 1: Motorization in Chinese Cities: Issues and Actions," *China's Urban Transport De*

<sup>44</sup> The World Bank, *China 2020, Clear Water, Blue Skies* (Washington, DC: The World Bank, 1997), 77-78.

<sup>45</sup> Steven Stares and Liu Zhi, "Theme Paper 1: Motorization in Chinese Cities: Issues and Actions," *China's Urban Transport Development Strategy, Proceedings of a Symposium in Beijing, November 8-10, 1995* (Washington, DC: The World Bank, 1996), 44.

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<sup>47</sup> The World Bank, *China 2020, Clear Water, Blue Skies* (Washington, DC: The World Bank, 1997), 75.

<sup>48</sup> Ibid., 83.

<sup>49</sup> Ibid., 79.

<sup>50</sup> Laurence J.C. Ma, ed., *Urban Development in China* (Boulder, CO: Westview Press, 1981), 228.

<sup>51</sup> Ibid., 230.

<sup>52</sup> Aimin Chen, "China's Urban Housing Market Development: Problems and Prospects," *Journal of Contemporary China* 7, no. 17 (1998): 44.

<sup>53</sup> R.J.R. Kirby, *Urbanization in China: Town and Country in a Developing Economy 1949-2000 A.D.* (London: Croom Helm, 1985), 165.

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<sup>55</sup> Ibid., 174.

<sup>56</sup> Ibid., 176.

<sup>57</sup> Ya Ping Wang and Alan Murie, "The Process of Commercialization of Urban Housing in China," *Urban Studies* 33, no. 6 (1996): 972.

<sup>58</sup> Ibid., 977.

<sup>59</sup> The World Bank, *Enterprise Housing and Social Security Reform Project* (Washington, DC: The World Bank, 1994), 8.

<sup>60</sup> Ibid, 3.

<sup>61</sup> Minxin Pei, "The Political Economy of Banking Reform in China, 1993-1997," *Journal of Contemporary China* 7, no. 18 (1998): 337.

<sup>62</sup> Aimen Chen, "China's Urban Housing Market Development: Problems and Prospects," *Journal of Contemporary China* 7, no. 17 (1998): 53-54.

<sup>63</sup> Ibid., 53-54.

<sup>64</sup> Ibid., 54-55.

<sup>65</sup> Ibid., 54-55.

<sup>66</sup> *China Daily*, September 18, 1998.