Roughly one out of every 10 people in the world today is a resident of a Chinese city. The United Nations projects that the number of Chinese urban dwellers will increase from over 622 million today to over 1 billion in circa 2030. How China manages its urban transformation will have considerable bearing not only for the Chinese economy and society, but for the world at large. Has China’s urbanization amplified the pace of economic prosperity? Has urbanization connected poor people with prosperity and enhanced living conditions across the country’s vast landscape? What are priorities for public policy and investment to generate win wins for urban efficiency and social inclusion? This “Urbanization Review” helps answer these questions by diagnosing the health of China’s urban economy and urbanization process, highlighting how policy challenges vary across the urban portfolio.

China has embraced the urbanization process that has accompanied its dramatic economic transformation. By investing in the institutional foundations, Chinese policymakers have sown the seeds to amplify the gains from urbanization. An urban land market has been created, and regulations standardizing the assignment of land use rights have been established. And while the urban planning law in the 1980s aimed at controlling the size of large cities, the 10th Five-Year Plan (2001–05) and onwards instead chose to emphasize the synergistic development of China’s large, medium, and small cities. In places such as Changsha, Zhuzhou, and Xiangtan, which have a combined population of 13 million, planning guidelines have enforced land use rights and promoted intensification in central areas, while expressways and railways have improved connectivity among these cities and with their rural hinterlands.

Box 1: The World Bank’s Urbanization Review Flagship Study

The study is part of a series of country pilots under a global product (Urbanization Review) being developed by the Finance, Economics and Urban Development Department (FEU) of the World Bank. The objective of this product is to provide diagnostic tools to inform policy dialogue and investment priorities on urbanization by operationalizing the framework for urbanization policies developed by the World Development Report (2009) – Reshaping Economic Geography, as well as the Bank’s new Urban and Local Government Strategy “Systems of Cities: Harnessing Urbanization for Growth and Poverty Reduction”. To test the relevance and flexibility of the core diagnostic tools across countries at incipient, intermediate and advanced states of urbanization, country pilots are being initiated in China, Colombia, India, Indonesia, and Vietnam, as well as a case study of South Korea. Ideally, a sequence of policies that start by developing the ‘soft structures’ or common institutions followed by the ‘hard structures’ focusing on connective infrastructures can generate win-wins for efficient and inclusive development.

1. Rapid urbanization accompanied by spatial efficiency and economic prosperity

Spatial Transformation: Coastal areas are dominated by large cities, the hinterland by small and medium sized cities. Urbanization has been rapid along the coastline and the Yellow River (Figure 1). Table 1 shows the “system” of Chinese cities in this Urbanization Review. On average, the 12 cities in the largest group are over 10 times as large as the 133 cities in the

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smallest group. And out of the 38 cities with more than 2.5 million residents, 28 are in Eastern part of the country. In contrast, the landscape of the central region is dominated by medium sized cities between 1 and 2.5 million people and the western region is dominated by smaller cities of less than 1 million.

**Figure 1. China’s urban footprint and urban system**

![Urban footprint](image1)

![Urban system](image2)

Source: Reproduced using GIS data by Schneider et al. (2009).

Source: Authors’ own definition based on the 2000 population census.

**Table 1. China’s system of cities**

<table>
<thead>
<tr>
<th>City group</th>
<th>1 (&gt;4M)</th>
<th>2 (2.5-4M)</th>
<th>3 (1.5-2.5M)</th>
<th>4 (1-1.5M)</th>
<th>5 (&lt;1M)</th>
<th>All cities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
<td>Number</td>
<td>%</td>
</tr>
<tr>
<td>Eastern</td>
<td>8</td>
<td>66.7</td>
<td>20</td>
<td>76.9</td>
<td>20</td>
<td>44.4</td>
</tr>
<tr>
<td>Central</td>
<td>2</td>
<td>16.7</td>
<td>4</td>
<td>15.4</td>
<td>16</td>
<td>35.6</td>
</tr>
<tr>
<td>Western</td>
<td>2</td>
<td>16.7</td>
<td>2</td>
<td>7.7</td>
<td>9</td>
<td>20.0</td>
</tr>
<tr>
<td>Total</td>
<td>12</td>
<td>100.0</td>
<td>26</td>
<td>100.0</td>
<td>45</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: the 2000 Population Census.

Note: The city classification is based on urban population of permanent residents in circa 2000. The study focuses on 287 prefecture-level cities.

**Economic Transformation**: Economic prosperity is concentrated in large cities with good access to international markets. Urbanization—particularly urban concentration in the largest cities has amplified economic progress. 76 percent of urban exports are generated in cities with 2.5 million or more people. And 62 percent of overall foreign capital is utilized in these cities. In particular, as illustrated in Figure 2, proximity to international markets has been the main driver of urbanization and urban economic success.

**Figure 2. Proximity to international markets drives city growth**

![Economic concentration, GDP, 2007](image3)

![Long distance migrants from other provinces, 2000](image4)

The urban economic structure is more complex when looked at closely. First, big cities tend to generate higher incomes, but there are significant variations within each city size group, likely to be contributed by economic geography conditions and other
Box 2: Viewing China’s urbanization through a “System of Cities”

This study employs a “systems of cities” perspective to evaluate China’s urbanization process and its urban economy. Chinese cities are classified into five groups by urban population size. In contrast with previous studies, the city groups are based on size of the permanent urban population rather than registered population. This is very important as unregistered migrant workers account for a significant share of urban population in China.

The main sources of Chinese socioeconomic data at the sub-national level are the Statistical Yearbooks compiled by the National Bureau of Statistics of China (NBS). Provincial and City Yearbooks are compiled and published annually. However, as raw data are from individual provincial and local governments without strong expertise in statistical data collection, the quality of data are always questionable. Even for a simple urban population count, each city applies different criteria: some cities report registered (hukou) population, and others permanent people with actual residence of more than 6 months or de facto population. The majority of scholars concur that China’s 2000 population census is a relatively reliable source of data for analytic work.

In addition, the 2000 population census was the first census to include permanent residents living in urban areas for more than six months rather than relying on the registered population in hukou system. This study uses the 2000 population census as the main information source and complements data from Statistical Yearbooks. For example, local GDP, local fiscal revenues and expenditures, and detailed public service delivery data (rather than access to services) are only available in Statistical Yearbooks.

Statistical analysis of the total urban population residing in urban districts, county-level cities and counties of each prefecture city is obtained from the 2000 Population Census. The total urban population residing in urban districts is computed for county-level cities and counties of each prefecture city. 287 prefecture-level cities are grouped by the size of their urban population, and assigned into five groups of equal population mass (approximately 20 percent of the total urban population). Group 1 contains the largest cities and Group 5 the smallest ones. On average, cities in the largest group are 10 times bigger than those in the smallest group. The year 2000 definition of 287 prefecture level cities is back-casted and fore-casted to different years to construct time-consistent panel data. The main benefit of this city grouping of equal urban mass is it helps identify specific drivers or bottlenecks of Chinese city performance. Other things being equal, each group of cities with the same urban mass should perform similarly. Any differences are driven by other city-specific factors commonly shared in the same group.

Figure 3. Strong correlates of urban productivity (city GDP per capita), 2007

Note: Average city income is measured by GDP per capita.
local factors (Figure 3). A city’s manufacturing employment share, urban clustering\(^2\), and access to international market are highly correlated with urban productivity (city GDP per capita).

Table 2. City size by itself does not induce city growth

<table>
<thead>
<tr>
<th>OLS dependent variable</th>
<th>(1) ln(gdp per capita, 2007)</th>
<th>(2) annual city pop growth, 2007–2000</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ln(city pop, 2000)</td>
<td>0.207***</td>
<td>-0.035</td>
<td>-0.000</td>
<td>-0.000</td>
</tr>
<tr>
<td></td>
<td>(0.047)</td>
<td>(0.052)</td>
<td>(0.001)</td>
<td>(0.001)</td>
</tr>
<tr>
<td>ln(distance to Beijing, Shanghai, Hong Kong, km)</td>
<td>-0.077**</td>
<td>-0.004***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share of manufacturing employment, 2000</td>
<td>2.944***</td>
<td>0.008**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.360)</td>
<td>(0.004)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ln(urban clusters in 50km, 2000)</td>
<td>0.095*</td>
<td>-0.003***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Observations</td>
<td>287</td>
<td>287</td>
<td>287</td>
<td>287</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.057</td>
<td>0.486</td>
<td>0.003</td>
<td>0.321</td>
</tr>
</tbody>
</table>

Note: 1. Robust standard errors in parentheses; * significant at 10%; ** significant at 5%; *** significant at 1%

Third, not surprisingly, large inland cities are lagging behind though possessing high-quality human capital and relatively good consumer amenities (Figure 4).

Figure 4. Inland large cities are lagging behind

Second, econometric analysis in Table 2 shows proximity to Beijing, Shanghai or Hong Kong, share of workforce in manufacturing, and clustering of urban population in close proximity as important contributors to a city’s success—both in terms of urban productivity (GDP per capita) and population growth. A city’s size by itself does not explain success—its linkage with international and local markets does.\(^3\)

\(^2\) It is measured by the total number of urban population within 50km radius.

\(^3\) Similar evidence is found in Brazil during 1970–2000 where city growth was primarily driven by market potential for goods, inter-city transport costs, and the population concentration in nearly towns and villages (Da Mata, et al, 2007).

International experience highlights that manufacturing initially concentrates in large cities of countries at early stages of economic development (India), then disperses evenly across the urban system (Brazil), and finally becomes specialized in small cities and rural areas of mature systems (USA). Innovation and financial services tend to concentrate in largest cities. In China, large “coastal” cities have a disproportionate concentration of manufacturing employment, but not financial services (Figure 5). It suggests that Chinese economic structure is still in the early stage of industrialization and will undergo significant structural changes in the near future. In addition, large cities either coastal or inland have strong concentration of scientific research activities—similar to the USA. Finally, agriculture activities are more specialized in inland small cities.

**Figure 5. Economic specialization of China: the location quotient**

[Graph showing economic specialization of China.]

Sources: Authors’ own calculation using the 2000 population census.

Going forward, Chinese cities can amplify the gains from economic transformation by accelerating the pace of product market integration. Fluidity in the markets for goods will facilitate economic specialization and enhance urban productivity. While China has made massive investments in infrastructure and particularly in transport networks of all modes, its domestic logistic costs rank 72nd out of 150 countries.4

### 2. Many poor people far from prosperity

While overall poverty reduction has been impressive, the coastal-inland development gap and the rural-urban divide are the two major components of spatial inequality in China. Spatial transformations have stimulated progress in large coastal cities—however many poor people in rural areas and small hinterland cities still need to be connected with prosperity. The rural poor account for 91 percent of the total poor; and western provinces (north and south) account for over 50 percent of China’s poor, though the western region only represents around 20 percent of the national population. In addition to rural-urban and broad regional divisions, the urban underclass is concentrated in second-tier cities (non provincial capitals).5 Four largest mega provincial cities (Beijing, Shanghai, Chongqing and Tianjin) have the lowest urban disadvantaged rate of around 1 percent. More than 80 percent of the urban underclass live in prefectural or lower-level cities.

Recent policy initiatives indicate an increasing commitment of the government to a broader poverty reduction, social protection, and human development agenda. In line with China’s 11th Five-Year Plan, new spending programs target the development of an inclusive countryside with the objective to reduce the existing sharp rural urban disparities in public service delivery6. Policies now address some of the inadequacies, inequalities and inefficiencies in the allocation of public resources for the delivery of basic public services at the national level targeting the basic needs of the poor through the national poverty alleviation strategy.

4 Arvis et. al, 2007.
5 The urban underclass represents a group of relatively poor people under twice of the World Bank poverty line.
6 Bixi, 2009.
Investments under the national poverty alleviation program have been supporting basic infrastructure, including safe water and roads, in poor counties and villages across China. Public spending on the 9-year basic education has also been rising, emphasizing the need to accomplish the objective of universal 9-year schooling in the Western provinces and in rural areas across provinces. Similarly in health, new initiatives in the form of investments in public health infrastructure, New Rural Cooperative System in rural areas, and the urban basic health insurance for unemployed urban residents, have been launched and backed by higher public spending with the objective to enable all Chinese citizens to benefit from public health programs and essential care. But China’s journey in bridging spatial inequalities in service delivery is not complete with the largest cities having consistently better indicators for social and basic service.

Beyond access to services, the hukou system is the main barrier limiting the extent to which people can seek better economic opportunities. In general, it is more difficult to obtain a local hukou in large city such as Beijing, Shanghai, and Guangzhou. Big cities specialize in high-end and high value-added products demanding skilled workers. They also provide consumer amenities and public services which attract skilled workers. Urban migrants gravitate towards centers of economic opportunities—large cities offering higher wages and better public services. Limiting entry into these cities lowers the extent to which urbanization can be spatially and socially inclusive.

3. Fluid factor markets and differentiated public policies: key to efficient and inclusive urbanization

3.1. Fluid land, labor and product markets as a foundation

Strategies that balance spatial efficiency and equity will be the main challenge for next round of urbanization in China. While objectives of spatial efficiency may seem at odds with spatial equity, evidence from countries such as the United States shows that enhancing fluidity of factor markets along with progressive policies can turn the apparent tradeoff into a win-win. In the United States factor markets at the national level integrated at different rates for goods, capital, and labor.7 Goods market integration was realized in the latter half of the nineteenth century, capital markets by the early twentieth century, and finally labor markets by the mid-twentieth century (Figure 8). Only after all three markets of goods, capital, and labor

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7 Kim and Margo (2004).
were nationally integrated, local wages and earnings became less tied to place, and regional economic structure and regional incomes finally converged significantly. In sum, the dissipation of regional disparities was realized only after goods, capital, and labor markets were fully integrated.

China has been very successful in integrating goods market thanks to massive construction of trunk transport infrastructure. However, from the USA experience, goods market integration by itself cannot induce convergence in regional and local incomes. Other factor markets, such as labor and capital, need to be fluid and integrated into the national market. Fluid factor markets are the key for inclusive urbanization. In addition to fluid labor market, what are priorities for public policy and investment?

3.2. A typology for policy prioritization

To be most effective, urban policies of each city need to be tailored to meet specific urbanization challenges, which are interlinked with its position in the urban hierarchy (systems of cities) and economic geography endowments. The following typology can be proposed to differentiate priorities across different places in China’s urban portfolio:

- **Group I**: Big cities in coastal areas, such as Beijing, Shanghai, and Guangzhou. Those cities have grown rapidly serving as a main gateway to access international markets. They have served as engines of Chinese economic growth.

- **Group II**: Rapidly expanding suburban cities near big coastal cities.

- **Group III**: Large inland cities. These cities are excluded from the current development cluster, but possess high-quality human capital and good amenities, which will serve as a foundation for economic development.

- **Group IV**: Small hinterland cities and rural towns. These cities constitute the bottom tier of the Chinese urban hierarchy, and have strong linkage to agricultural activities in neighboring rural areas.

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8 The chart plots regional income per capita, 1840-1990 (U.S. = 100). It is quoted from Kim and Margo (2004), and originally from Easterlin (1960, 1961), Statistical Abstract of the U.S., various years.
References


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