Chinese Urban Development in 14th Five Year Plan and Beyond: Issues & Implications

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Urbanization Status Quo in China

- Fast growth in the past 40 years:
  - 11% in 1949; 18% in 1978; 50% in 2010; 59.6% in 2018
  - Annual Growth rate 3-5% during 1980-2010
  - Up to 300 million floating population staying in cities without hukou, i.e. resident registration

**China's urban and rural population since 1949**

In 2010, the urban population surpassed the rural population

Data source: 2015 China Statistical Yearbook
Urbanization Status Quo in China

- Unbalanced distribution by Province
  Preeminent in coast/Eastern areas
Urbanization Status Quo in China

- 19 identified city clusters
- Play dominated role

<table>
<thead>
<tr>
<th>items</th>
<th>2012 (%)</th>
<th>2016 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>93.9</td>
<td>90.5</td>
</tr>
<tr>
<td>Population</td>
<td>82.6</td>
<td>82.8</td>
</tr>
<tr>
<td>Built-up land</td>
<td>88.8</td>
<td>89.8</td>
</tr>
</tbody>
</table>

% of China’s Total
Urbanization Challenges

- Enlarged Urban-Rural disparity
- Surplus productivities in traditional manufacturing
- Heavier regional environment pressure
- Traffic congestion in big cities
- Land use inefficiency
- Living cost is going higher, particular for socially vulnerable groups
- Urban financing is facing new challenges
- Ineffective regional governance
Under transition (New Urbanization in 2013 & 13th Five Year Plan)

- China experiencing dramatic socio-economic change, driven internally & externally
  - Magnified in urban areas which account for 60% of population & >80% of economy
  - China pursuing a better life for its people (mei hao sheng huo) under the ecological civilization framework

- This presentation **based on mega-trends** affecting China’s urban system & city building
  - Demography
  - Consumption preference
  - Climate change
  - Rural context
  - Evolving urban system
1 DEMOGRAPHY

- Rural-urban transition in late stages
  - Lewis tipping point close
- Rural population been declining but magnitude of decline will slow
- **By 2045-2050 aggregate absolute urban population will decline, urbanization level about 80%**
- Population decline rates will be highly variable across cities
  - 30% of cities declining already, especially in north east & natural resource areas
- Urban population aging rapidly but high variance, from Shenyang to Shenzhen
<table>
<thead>
<tr>
<th>Period</th>
<th>Increment</th>
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<tbody>
<tr>
<td>2020-2025</td>
<td>81.5 Million</td>
</tr>
<tr>
<td>2025-2030</td>
<td>61.3 Million</td>
</tr>
<tr>
<td>2030-2035</td>
<td>41.8 Million</td>
</tr>
<tr>
<td>2035-2040</td>
<td>23.8 Million</td>
</tr>
<tr>
<td>2040-2045</td>
<td>8.6 Million</td>
</tr>
<tr>
<td>2045-2050</td>
<td>-0.9 Million</td>
</tr>
</tbody>
</table>

**Figure 1: Forecast Urban Population Increments China: 2020-2050**

Source: UN Population Division, 2018
<table>
<thead>
<tr>
<th>Year</th>
<th>Population (Unit: 1,000)</th>
<th>Change (Unit: 1,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>549,472</td>
<td></td>
</tr>
<tr>
<td>2025</td>
<td>482,282</td>
<td>-67,190</td>
</tr>
<tr>
<td>2030</td>
<td>423,334</td>
<td>-58,948</td>
</tr>
<tr>
<td>2035</td>
<td>373,890</td>
<td>-49,444</td>
</tr>
<tr>
<td>2040</td>
<td>334,009</td>
<td>-39,881</td>
</tr>
<tr>
<td>2045</td>
<td>302,324</td>
<td>-31,685</td>
</tr>
<tr>
<td>2050</td>
<td>272,509</td>
<td>-29,815</td>
</tr>
</tbody>
</table>

*Figure 2: Forecast Rural Population & Change by 5 Year Increment*

2. CHANGING SOCIAL / CONSUMPTION PREFERENCES

- Household preferences expressed through housing market, migration behavior, labor market

- Amenity migration to places such as Qingdao, Kunming, Shanghai, Sanya, Xiamen, Hangzhou, e.g., US: 40% of population shifted
  - Climate is dominant driver, but scenery, environmental quality, etc.

- Quest for quality: construction quality, community design, walkability, access to facilities, types & spacing of buildings, amenity, 3rd spaces

- Millennials: increasingly desire urbanity, 24/7 environments
3. ECOLOGICAL CIVILIZATION / CLIMATE CHANGE

- cities key to implementing China’s shift towards ecological civilization
  - programs such as eco-cities, low carbon pilot & sponge cities
- exposure to intensified flooding, heat waves, water shortages, agricultural production in hinterlands magnified by high concentration of population & assets in urban areas
- impacts could include coastal flooding, changed amenity migration patterns, changing urban hinterland agricultural patterns
4. CHANGING RURAL CONTEXT

- Urban areas cover <2% of surface area
- Most of China’s rural land area depopulating (like North America)
- Rural vitalization likely will speed up depopulation
- Changing food consumption (e.g. safer & fresher food) will change agricultural patterns, enhancing urban, peri-urban gardening agriculture
- Urban hinterland demand for eco services, recreation, second homes
5. CHINA’S EVOLVING URBAN SYSTEM

- **East coast dominance** increasing both in GDP & demographic terms
- Policy attempt to re-orient the focus of demographic growth to the interior have had limited success given the overwhelming momentum & advantages embedded in the cosmopolitan east coast driven by the three mega urban clusters: Greater Bay Area, Yangtze River Delta and Beijing-Tianjin-Hebei urban clusters
- Fiscal deficits lower on coast than central & west; dependency on public investment higher
  - as national GDP growth slows, less leeway for inefficiencies in urban system
Clusters contain full spectrum of settlements & majority of urban population

Only 6 “real” in terms of connectiveness: PRD/GBA, Yangtze, West straits, Beijing-Tianjin -Hebei, Shandong Peninsula, South-central Liaoning

Very high differentials in performance & challenges, e.g.

- By 2035, Yangtze will contain 5th (Shanghai) & 18th (Suzhou) highest GDP cities
- Harbin-Changchun Cluster (rust belt) lost 1.3 million people 2012-2016
- No institutional mechanisms that speak for overall optimal cluster development
IMPLICATIONS OF MEGA-TRENDS: ISSUE AREAS & IMPLICATIONS
IMPLICATIONS 1: URBAN POPULATION DECLINE

- Virtually all Chinese cities will demographically decline between 2020 and 2065.
- Improve demographic forecasting & knowledge of demographic dynamics
- Address urban labor force shrinkage by extending the labor force participation & productivity of older demographic cohorts through public health & vocational retraining measures
- Plan and invest in urban infrastructure based on long-term population forecasts, not forecast peak populations to avoid “stranded” overbuilt infrastructure systems.
- Regulate urban physical growth through tools such as red-lining, agricultural land preservation, urban growth and/or service boundaries, to avoid concretized patchy development when urban population growth stagnates, & to protect land for agricultural, eco-system, and recreational uses
China lacks fully integrated urban system, cluster & metropolitan labor markets which should be one of the prime benefits of cluster development.

- Much more important in innovation economy than “factory of world economy”
- Agglomerating & unleashing talent key to innovation
Social benefits, particularly pensions and health insurance, should be nationally consistent & geographically portable. Otherwise, highly localized social benefits deter migration, contributing to lack of integrated national and urban cluster labor markets.

Regional development policy in PRC is based on place prosperity rather than people. But often much higher returns on public investment could be realized if the focus were on people, e.g., their education and health, which would give them the option of leaving, & thus facilitate the economic restructuring of these less dynamic cities and regions.
Cluster institutional & policy frameworks should vary by their stage of development

In all cases the emphasis should be on broad issues and policies such as *regional-scale land use* (particularly the built-up, arable, protected / environmental services land distinctions), cluster scale trunk infrastructure, and *structuring social programs* to eventually operate cross-cluster.
Within urban clusters, development of metropolitan and local areas should be facilitated based on their comparative & competitive advantages.

Regional connectivity infrastructure, adjusted for terrain, should be “necklace” form, that is, based on corridors containing the latest transportation modes / technologies, connecting key nodes, with higher density development around stations.

For each cluster, an institution needs to be mandated to operate in the interests of the cluster as a whole for planning & development, including borrowing capacity.

Given the fast-changing development context, & the 15 to 20 years timeline needed to restructure urban systems, a 2040 time horizon for perspective cluster plans is more realistic.
IMPLICATIONS 5: SHAPING FUTURE METROPOLITAN STRUCTURE

- China’s new urban economy is becoming more innovation & consumption driven. Chinese planners need to ask: “What new types of urban modules, and where, are needed to support China’s economic restructuring”. This would result in a better alignment between city building & rapid economic restructuring / higher productivity.

- Less land & floor space is needed for offices & manufacturing per unit of output / employee

- Future cities will be primarily “living platforms”, characterized by mixed land use, a higher proportion of floor space in residential, lifestyle services, organic development

- Greater diversity in housing types will be demanded
IMPLICATIONS 6: LAND EFFICIENCY

- Industrial land should be priced closer to (or at) market rates rather than be highly subsidized for local economic development & taxation reasons.

- Densities should be highly variable for land use efficiency reasons.

- TOD development should be encouraged through higher FARs near stations by changing planning regulations to encourage mixed development (horizontal and vertical) & use of PPP modalities emphasizing outcomes. TOD development will result in much higher returns to public investment in urban transit.
China has been successful over the last 4 decades in building urban road & rail infrastructure + enough housing. Now emphasis needs to be on quality. China should leapfrog to a new urban paradigm: the new Chinese city. Question “tower in the park” design. Adopt a stepwise urban renewal paradigm for creating a more socially inclusive community.
IMPLICATIONS 8: IMPROVING URBAN QUALITY

- Build more people friendly **mid-rise residential construction**, with higher ground coverage and compactness.
- Organic development of communities **with more retrofitting, infilling**, and preservation of cultural heritage and vegetation, etc., is needed as population growth declines and the demand for urban quality increases.
- Fencing and gating of large communities should be administratively discourage
- **Finer road grids are needed** with narrower, more human scale streets, incorporating walking and bike lanes, and easily crossable.
- Cities should be **organic & flexible**. E.g. parking structures should be adaptable to other uses such as temporary flood storage as part of sponge city design.
The emphasis should turn to soft infrastructure investment such as portable pensions and health care insurance, improving community livability and urban services delivery, environmental quality (e.g., circular economy), housing quality.

Current funding mechanisms for China’s cities are unsustainable, New sustainable mechanisms, such as property taxes, need to be formulated and implemented.

New Fiscal Institutions are needed, e.g., Performance Oriented Local Government Finance Vehicles, Special Districts.

To encourage cross-jurisdictional integrated investment in urban clusters, new mechanisms, which could benefit from international best practice, such as national matching grants and special districts, should be considered.
CALL FOR RESEARCH ON:

- **BRI & COMMUNITY SHARED FUTURE MANKIND**
- **ECO-CIVILIZATION & NEW DEVELOPMENT CONCEPTS**
  - Innovation, Coordination, Green, open & share
  - Spatial planning
- **LEGALIZATION & MODERN NATIONAL GOVERNANCE**
  - Institutional reform
- **NEW URBANIZATION APPROACH**
  - Urban clusters
  - Big data, Smart city & Eco-city
  - Socially inclusive community building & culture embedded place making
- **RURAL REVITALIZATION**
  - Precision poverty reduction
  - Heritage-based tourism
Thank You