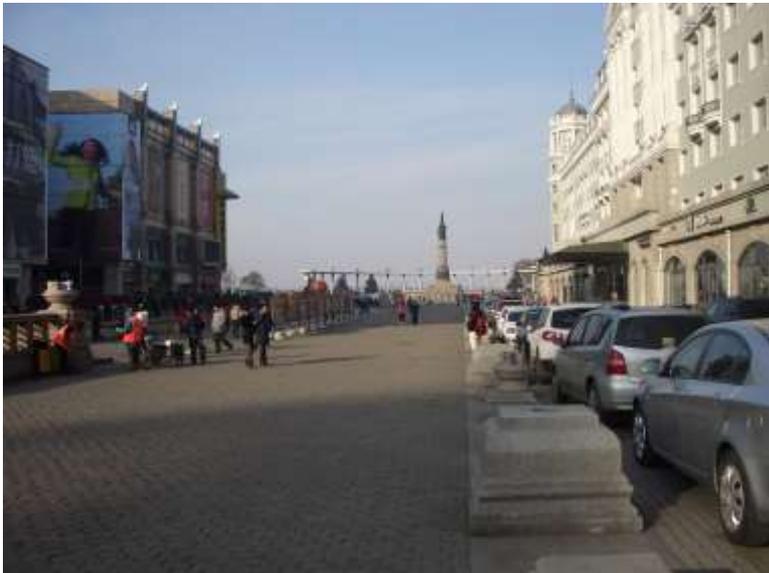


# Public Private Partnerships & Urbanization in the PRC

## 公私合营与中国城市化

NDRC, MOF, ADB

Beijing



Cai Jianming & Douglas Webster  
Professors, Chinese Academy of Science &  
Arizona State University

**Disclaimer:**

The views expressed in this document are those of the author, and do not necessarily reflect the views and policies of the Asian Development Bank (ADB), its Board of Directors, or the governments they represent. ADB does not guarantee the accuracy of the data included in this document, and accept no responsibility for any consequence of their use. By making any designation or reference to a particular territory or geographical area, or by using the term "country" in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

# China's New Urbanization Policy (NUP)

## 中国新型城市化

- China is one of a very few developing countries to have initiated a policy of accelerated urbanization
- 中国是世界上少有的提出加速城市化政策的一个发展中国家
  - High Payoffs Realized in terms of Economic Growth & Alleviation of Poverty
  - 在经济发展和减贫方面由此获得了高回报
  - But New Challenges related to Environmental Quality, Provision / Financing of Urban Infrastructure & Quality of Urban Communities
    - particularly Suburban & Peri-Urban
  - 但同时面临着有关环境质量、基础设施融资和高质量社区建设的诸多挑战，特别是在城市郊区和半城市化地区

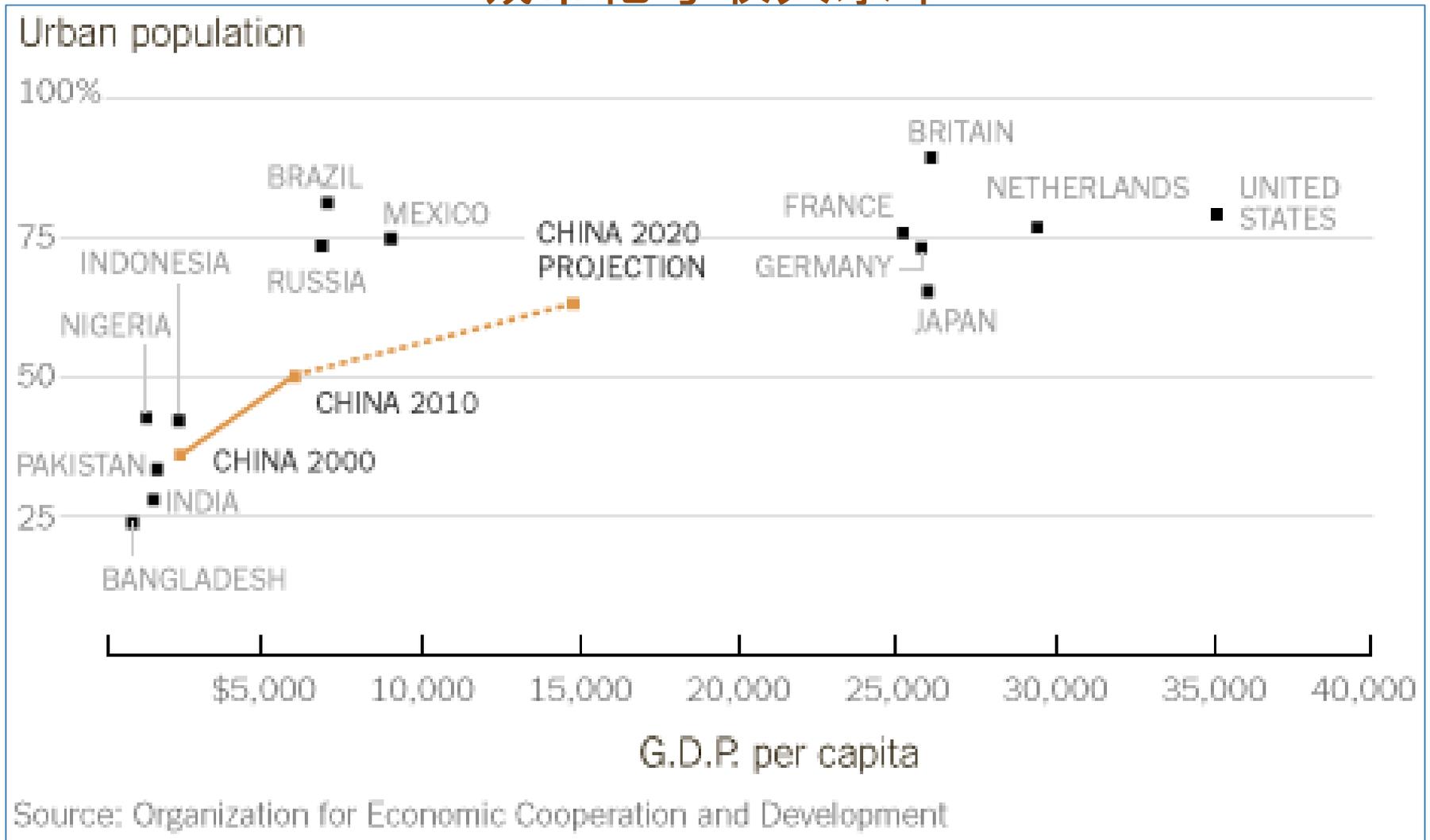
# China's New Urbanization Policy (NUP)

## 中国新型城市化

- New Chinese Leadership has accelerated urbanization targets
- 新一届中国领导已经提出了加速发展城市化的目标
  - 70% of Population to be Urbanized by 2025: Total 900 Million
  - 2025年城市化水平达到70%，意味着城市人口将达到9亿以上
  - 250 Million Urban Residents to be added over 12 Years
  - 未来12年内将增加2.5亿城市人口
  - Policy focuses on Urbanization in under-urbanized Regions
  - 城市化将集中在欠城市化地区
- Creating “new cities” in Under-Urbanized / Developed Regions creating Significant Challenges in terms of Economic base / Livelihood for Migrants
- 在欠工业化地区创建“新城市”将会在诸如城市经济基础和迁移人口生境方面带来严重挑战

# Urbanization & Level of Income

## 城市化与收入水平



# Financing Urban Infrastructure

## 城市基础设施融资

- Associated with NUP is reform of LG finance policies / mechanisms by National Government
- 与新型城市化相伴而来的是中央政府要求地方政府进行融资政策和机制的改革
  - Less reliance on bank borrowing by LGs
  - 不断减少地方政府对银行借贷的依赖
  - More reliance on domestic bonds & innovative finance such as PPP, BOT
  - 更多的应依赖于国内债券和创新性的融资，诸如公私合营，建-营-转
  - More reliance on efficient revenue generation by projects
  - 更多的依赖于项目自身带来的有效收入

# Financing Urban Infrastructure

## 城市基础设施融资

- Local Debt is high (although not accurately known): Thus New Mechanisms are Needed to Attract Private Capital & Generate Substantial Revenue for Appropriate Urban Projects
- 地方债务高企（尽管没人知道确切的数字）：因此需要新机制以吸引私人资本和为合适的城市项目形成足够的收入
  - Last full PRC audit (2011) indicated local government debt of 10.7 trillion RMB (\$1.75 Trillion USD)
  - 2011的审计显示地方政府债务高达10.7万亿
  - Haitong Securities estimates current LG debt at 15 Trillion RMB : 9.5 in loans, 3 in trust funds (pensions, etc.), 2 in city investment funds & 0.65 in LG Bonds
  - 海通证券估计目前地方债务高达15万亿，其中9.5万亿贷款、3万亿信托资金（养老基金等）、2万亿城市投资基金和6500亿地方政府债券
  - Central Govt Debt is low (14.4% of GDP) in 2012; but Local Government Debt is High (IMF estimates total Government debt at 46% of GDP)
  - 2012年中央政府负债较低（占GDP的14.4%）；但地方政府负债高企（国际货币基金估计中国各级政府的债务占到其GDP的46%）

# Financing Urban Infrastructure

## 城市基础设施融资

- In longer run, more radical restructuring is needed, e.g., property taxes to replace too high reliance on land sales, which are declining (in revenue terms) in many cities, including Harbin
- 长远来看，需要进行更剧烈的结构调整，如以房产税替代过度依赖的土地收入，目前在许多城市包括哈尔滨土地的收益率正在不断递减

# Financial Costs: Absorbing New Migrants

## 吸纳新迁移人口的金融成本

- Public service provision capital cost (including civil infrastructure, public utilities, etc.) is about 100,000 RMB per each new urban resident (NDRC, 2013)
- 中国每增加一个城市公民的公共服务投资（包括基础设施和公用事业）成本约为人均10万元
- Accordingly, 40,000 billion RMB will be needed by 2030 to provide services for 400 million new urban residents
- 据此，到2030年，吸纳新增加4亿城市人口的基础设施投资总额约为40万亿元

# Financial Costs: Absorbing New Migrants

## 吸纳新迁移人口的金融成本

- Housing (not included in the above) is primarily delivered by the private sector, but requires government subsidy (often through land) for affordable housing, etc. Basic urban housing provision requires approximately 150,000 RMB per capita nationwide
- 住房（未包含在基础设施之内）主要由私营部分提供，但经适房、廉租房等仍需政府的一定补贴（通常是通过土地的低价出让）。就全国平均而言，城市住房人均约需要15万元
- Chinese urban experts point to backlog infrastructure needs + higher expectations of urban residents & migrants - the cost for this “catch up” improvement will be at least 10,000 billion RMB
- 已有的研究指出，中国为还以往基础设施欠账和对现有基础设施改善的总投资也需要约10万亿元

# Financial Costs: Absorbing New Migrants

## 吸纳新迁移人口的金融成本

- Urban job creation in the formal sector may require approximately 60,000 RMB per workplace – largely provided by the private sector
- 每个正规城市就业岗位的创建约需资本6万元，大部分是由私营部门提供
- Capital spending to absorb migrants is currently subdued by the hukou system, but could expand rapidly (up to 3X) if the hukou system is liberalized, e.g., demand for public schools by migrant's children
- 吸纳迁移人口的资本投入目前受制于户口制度，但如果户籍制度的限制解冻，则有可能迅速扩张（根据在珠三角的已有研究，大约每1个城市居民使用的基础设施和公共服务约等于3个流动人口的使用量），如外来子女的就医就学需求等

# Categorization: PPP-Relevant Infrastructure

## 类型划分: 与PPP相关的基础设施

“Hard” Civil Infrastructure		“Soft” Social Infrastructure		Local Economic Development Infrastructure
Revenue Generating	Non-Revenue Generating	Revenue Generating	Non-Revenue Generating	
<ul style="list-style-type: none"> <li>• E.g., Tollways / Expressways</li> <li>• Water Supply</li> <li>• Mass Rapid Transit (BRT &amp; Heavy Rail)</li> <li>• Energy Generation / Transmission</li> <li>• Affordable Housing</li> </ul>	<ul style="list-style-type: none"> <li>• E.g., Urban Roads</li> <li>• Public Parks</li> </ul>	<ul style="list-style-type: none"> <li>• E.g., Vocational Education</li> <li>• Cultural Events</li> </ul>	<ul style="list-style-type: none"> <li>• E.g., Primary Health Care</li> </ul>	<ul style="list-style-type: none"> <li>• E.g., Manufacturing &amp; High-Tech Urban Platforms</li> </ul>

Source: Cai & Webster

# Best Practice 最佳实践

- Projects SHOULD be set in Urban Vision / Strategic Context
- 项目**应该**建立在城市愿景或战略发展的框架下
  - A perfectly designed & executed PPP pursuing the wrong objective, e.g., overbuilding, can severely damage a city
  - 一个方向错误但完美设计和执行的PPP项目可以给城市带来严重损害，如过度建设
- PPPs Require Long-Term Partnership between public agency(ies) & private company(ies) incorporating conceptualization (in the context of an urban strategy), design (project preparation), finance, construction, operations / maintenance
- 公私合营要求政府和地方企业在概念规划（在城市战略框架下）、设计（项目准备）、融资、建设、运营和维护等诸多方面进行长期合作

# Best Practice 最佳实践

- May or may not involve revenue generation depending on type of project
- 盈利与否取决于项目的类型
- Where high revenue generation is possible, e.g., public transit, it should be pursued aggressively to free up capital for other projects with less revenue potential
- 对于具备高收益的项目，如城市快速交通，应尽可能积极促成，以为那些盈利潜力较小的项目释放资本
- Urban projects usually must address land acquisition issue: High potential for win-win land readjustment solutions
- 城市项目通常必须强调土地合并的问题：对促成土地调整方案的双赢具有巨大潜力

# University Park @ MIT 大学园



- Location:
  - Situated between MIT campus & Cambridge port
  - 4 km from Boston CBD
  - Subway access (MBTA Red Line & future MBTA Green Line)
- PPP between MIT (owns land), City of Cambridge, and Forest City Enterprise (holds long term leases)
- Developed over 20 years

Clockwise from top: office + restaurants; residential complexes Kennedy Biscuit Lofts (KBL) + 100; campus style setting; University Park Common: wire spool reminder of property's former use by Simplex Wire & Cable Co.

# University Park @ MIT (Continued) 大学园

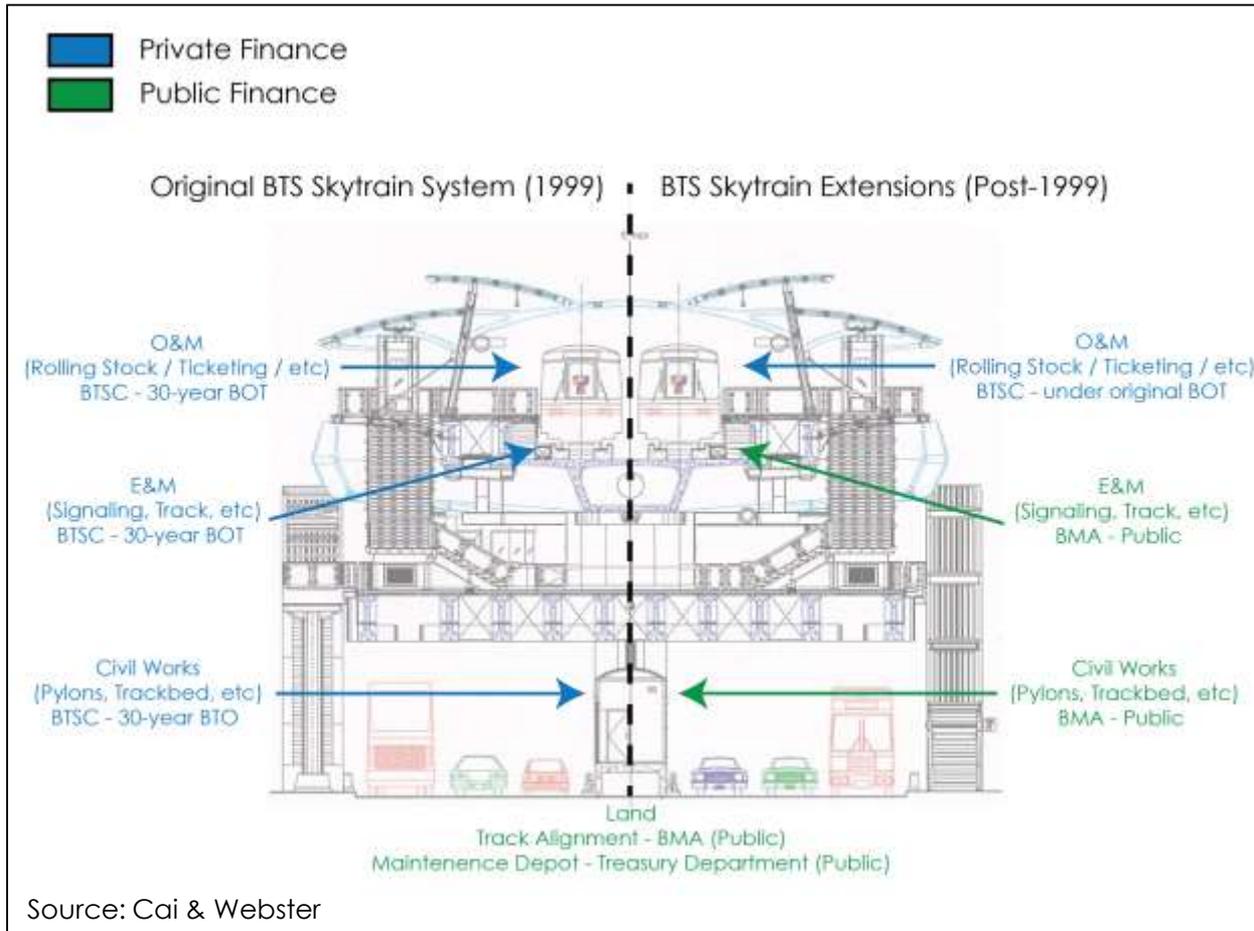


University Park Land Use Map

<http://www.universityparkliving.com/History/default.asp>

- Mixed use campus-style urban renewal project: 215,000 sqm GFA spread over 0.11 square kilometers
  - 10 office/ research laboratory buildings (140,000 sqm)
  - 4 residential complexes (160 units), incl. renovated factory
  - 23,000 sqm hotel, restaurant, and retail
  - Parks & open space, including 0.5 ha University Park Common (landscape awards)
  - 2,700 parking spaces
- Major biopharmaceutical center

# BTS Bangkok Mass Transit Example



Note: Original BTSC private consortium included Tanayong (Real Estate) as majority shareholder, with Ital-Thai (Construction), Siemens (Engineering) and IFC (Institutional) as minority shareholders, among others.

# 最佳实践：国内基础设施投资模式

模式		要点	范围	评述
政府投资	财政直投	项目纳入预算，由政府财政负责投资，政府部门负责建设运营	目前主要用于大项目以及非经营性项目	传统的模式，政府资金压力较大，效率不高
	融资平台	政府成立独资公司，注入各类资产，负责投资、建设，并以资产为抵押进行融资	当前的主流模式，在基础设施所有项目都得到了适用	负债严重，政府隐性担保，职能不清，运作混乱，依赖土地财政
政企合作（PPP）		政府通过招标等形式选择投资人，通过签订特许经营的形式，授权投资人负责融资、建设、运营，特许经营期满无偿移交政府	适用于经营性项目，非经营性项目需与其他项目捆绑	应用的越来越多，具有广阔的发展空间和市场潜力
企业投资		企业直接投资建设运营基础设施	适用盈利较强、门槛较低的营利性项目	风险较大，应用较少

# 重庆基础设施投资模式

## 模式概述

2002年开始，为缓解政府基础设施建设压力，对投融资体制进行了改革，先后成了八个地方政府融资平台（简称“八大投”），代替政府负责基础设施建设。

“八大投”的运营模式：政府拥有、授权经营，市场化运作，即政府注入土地、存量等资产，授权融资平台以独立法人的方式建设经营基础设施，并依靠自身的信用和资产进行融资。

“八大投”完成了重庆市75%的基础设施建设，其自身资产也达到了6000亿元（2011年底数）

## 要点解析

- 以城投公司为平台，以土地开发为支撑
- 政府授权，企业运作，市场化融资
- 主要依赖土地储备，具体为政府注入土地，企业利用土地抵押贷款进行基础设施建设，基础设施建成后土地升值，企业再利用土地的溢价出让偿还贷款
- 多元化融资，包括国开行、商业银行信贷、信托、债券、股市等

## 经验总结

- 重庆模式改变了过去单纯依靠政府财政投入进行基础设施建设的模式，通过市场化的运作促进了重庆市基础设施的跨越式发展。
- 该模式过度依赖土地收储出让收益，随着经济的下行，土地资源的萎缩，该模式风险极大
- 该模式中主体是带有浓厚政府背景的国企，垄断经营基础设施，缺乏社会资本和民营企业的大力参与
- 企业负债较高，需要转型升级

# 北京基础设施投资模式

## 模式概述

北京市一直稳步推进城市基础设施建设的市场化投融资，大胆创新，在地铁投融资、高速公路、水厂等领域取得了开创性的成就，比如北京地铁4号线PPP项目、奥运支线BT项目、亦庄线BT项目、大兴线委托运营模式都是具有首创性的大胆尝试，产生了巨大影响。

尤其是2005年颁布了《北京市城市基础设施特许经营条例》，通过立法的形式明确基础设施市场化运作的制度，对特许经营的范围、方式都做出了明确规定。

## 要点解析

- 以国有独资的城投公司为平台（如承担轨道交通建设的京投公司）
- 政府授权，立法规范
- 基础设施建设资金来源有：政府注入的资本金、项目盈利、其他业务（如土地开发）收益
- 多元化、市场化融资，包括商业银行信贷、企业债券、短期融资券、中期票据、股权信托、贷款招标等

## 经验总结

- 前些年北京市在基础设施投融资领域大胆创新，创造了多个影响极大的示范项目，但近些年市场化程度放缓
- 北京首创的地铁领域PPP模式运行的较为成功，积累了经验，也为其他城市（如杭州、深圳）的推广起到了示范作用
- 通过立法的规划，改变社会投资者介入北京基础设施投资建设和运营市场无法可依，有关部门引入市场机制、加强市场监管无章可循的状况

# 上海基础设施投资模式

## 模式概述

上海市是国内最早进行基础设施投融资体制改革的省市，1987年成立的久事公司是最早的投融资平台公司，随后成立了一批投融资平台公司（如城投、申通等）负责上海市基础设施的融资建设。

上海基础设施投融资先后经历了政府举债、土地批租、市场化等阶段。投融资体制改革总体上实现了投资主体由单一到多元、融资渠道由封闭到开放、投资管理由直接到间接的转变。

上海市于2010年出台了城市基础设施特许经营管理办法。

## 要点解析

- 形成了功能定位各不相同、持续服务城市建设和发展若干个投融资平台，是城市基础设施建设的主体
- 注重PPP等创新模式的运用
- 具有诸多先天优势，是中国的金融中心，拥有庞大的资本市场，同时还有熟悉资本运作的专业化团队
- 充分结合上海的社会经济持续稳定发展的形势，较为公开透明的政府环境和运作机制，对外资和民企具有较大的吸引力

## 经验总结

- 市场化程度较高，无论是在主体
- 政府干预不断减少
- 政府融资平台公司的作用和主体职能需进一步弱化，鼓励、支持、引入社会资本的力度仍应进一步加大
- 政府的引导、规划、监管职能需加强
- 一定要弱化土地财政，项目自身的盈利和资产运作水平

# Key Urban Factsoids: Harbin

## 哈尔滨市基本概况

- Municipal population 10.6 million (Census 2010), up from 9.4 million in 2000; an increase of 13.1%
  - Harbin ranks 27 out of the 54 largest municipalities in terms of demographic growth rate
  - Municipal population grew slowly of late, actually declining 2007 - 2010 by 37,000 people
- Urbanization Level of 47% (2010) is lower than China as a whole
- Harbin is poor by Chinese metropolitan standards. It has the lowest GDP per capita of 15 equivalent and aspirational Chinese Metropolitan Municipalities
  - However 2001 - 2011, GDP (Nominal) increased at 14.6% annually & currently is 424.3 billion RMB – Reversal of poor 1990s performance

# Key Urban Factoids: Harbin (Continued)

- FDI in Harbin is very low by Chinese standards at \$1.6 billion USD in 2011, only Jinan has lower (slightly) FDI per capita of equivalent cities
  - However, FDI has grown very quickly recently, increasing by 3.4X 2007 - 2011
- Aviation Movements: Cargo & Passenger Growing Slowly: 3.9 million Passengers (2011); 21,000 Tons Cargo
- Domestic Tourism up 4.8X 2001-2011 but International visitors only 1.8X

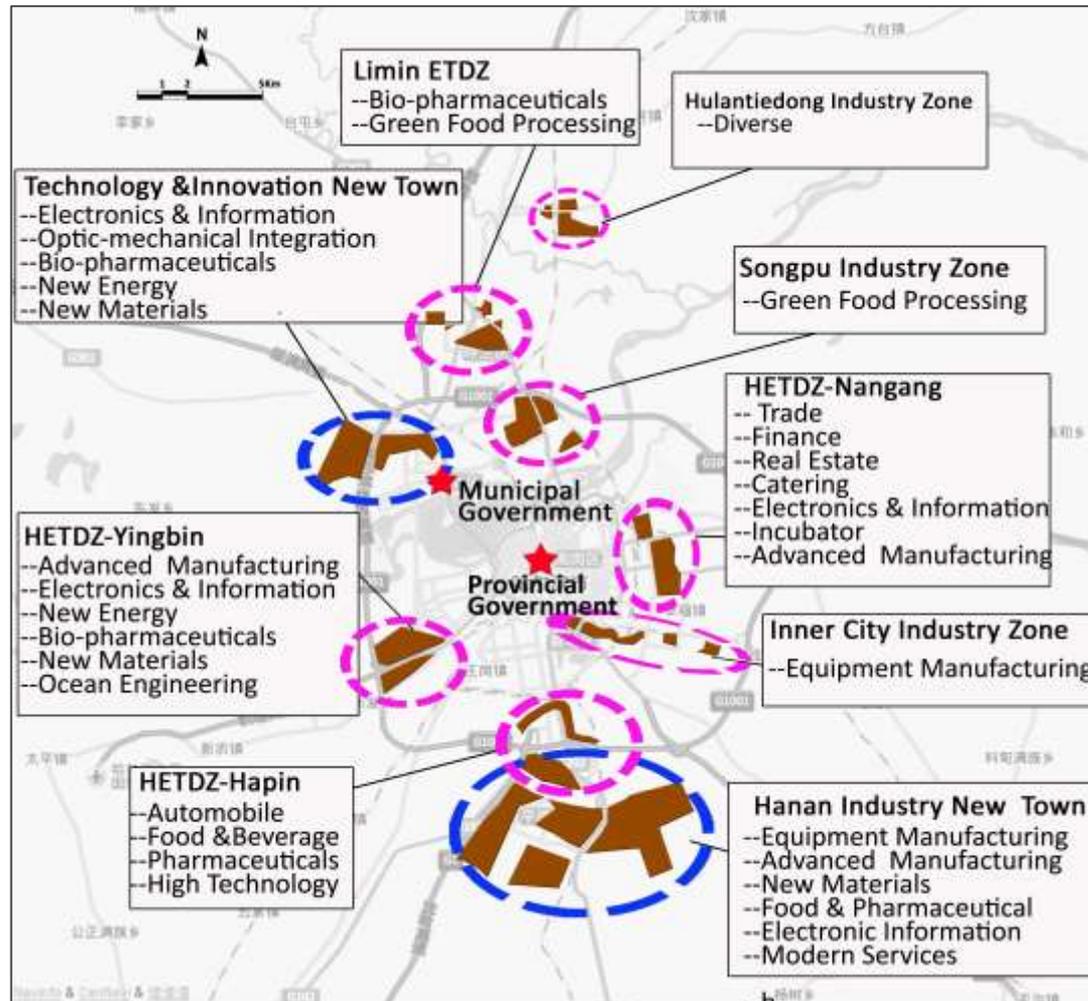
# Challenges of Harbin Urbanization Process

- Quantity of Physical Development is not Issue: City Proper Population will peak at approximately 7 million in 2030
  - 2.3 Million+ Residents
- Need to Focus on Quality of Development
- Target Niche Economic & Social Areas + Key Infrastructure
  - Higher Value, Cleaner Economy Should be Priority: Secondary Industry Under Threat
  - Affordable Housing Needed for Young & Migrants
  - Basic Public Services, particularly practical vocational education
  - Urban Platforms Needed for Economic Restructuring
    - Emphasis should be on Making Existing Zones More Attractive & Efficient, Not New Zones

# Challenges of Harbin Urbanization Process

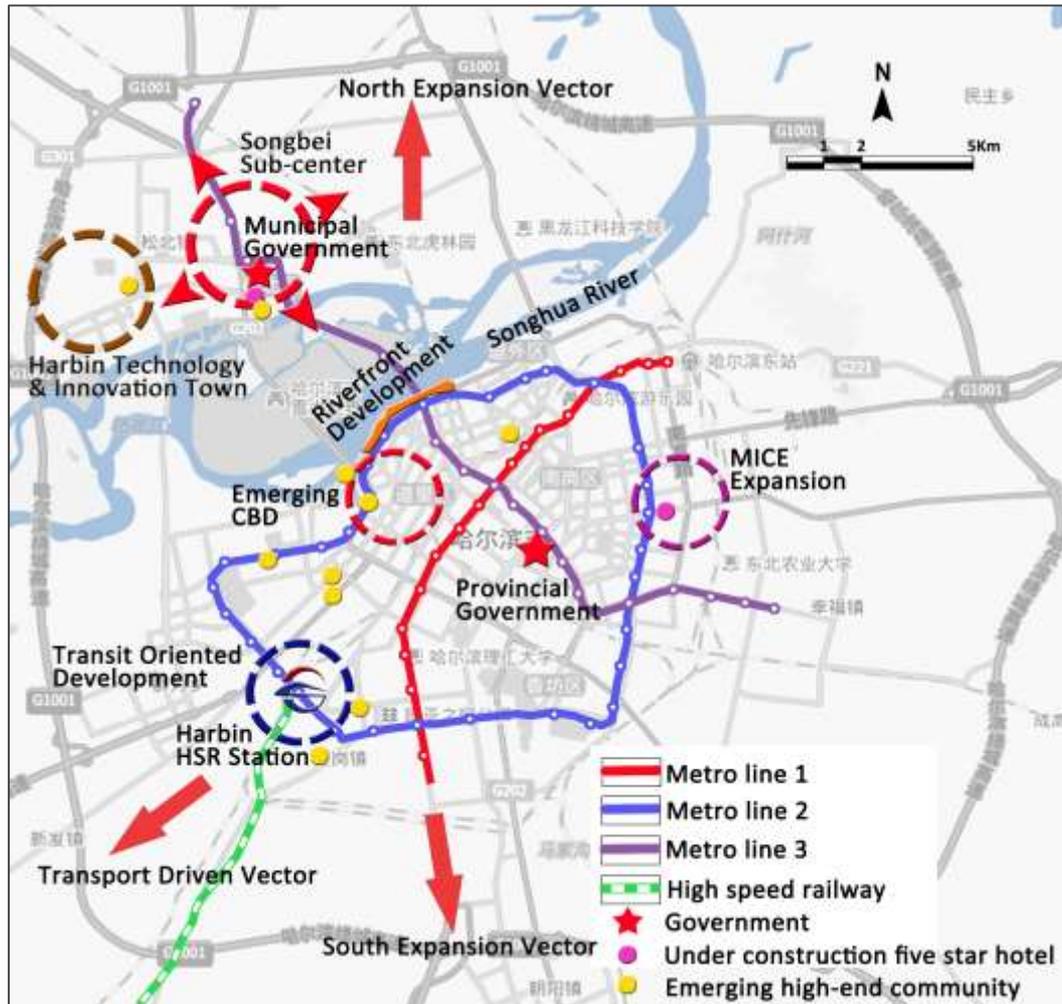
- Capital Constraints to Delivering Foregoing
  - Compounded by repayment of existing loans & bonds
- Resources are Diluted among too Many ETDZs + Residential Overbuilding
  - Infrastructure Inefficiencies
- Metro System will Dramatically Change & Concretize Spatial Structure Creating Enormous Opportunities for Land Value Capture

# Geographically Distributed Economic Base



Source: Cai & Webster

# Harbin Spatial Dynamics



Source: Cai & Webster

# Findings Harbin: Innovative Project Finance

- Public Sector Emphasizes Construction over Operation in Financial Planning & Mechanisms
- High Levels of Lost Opportunity Maximizing Revenue Streams from Operations, e.g., Metro
  - Inefficient use of Scarce Capital
- Early Indications of PPP focusing on large site urban development, particularly Wanda at HSR Station & Songbei HTZ
- PPP Principles not well understood
  - PPP Viewed primarily in terms of finance access, not knowledge & innovation transfers
- Development Zones more Receptive to PPP than “Line” Bureaus

# Possible PPP Projects: Harbin

- Hanan New Town: Cloud Valley, Convention District
- Metro (Subway): BOT Operations, TOD, etc.
- Harbin Western Area: Airport New Town
- Songbei HT: Development of Themed Sub-Area / Delivery of Infrastructure, e.g., KIC Shanghai
- Retrofitting of Residential Buildings & Heat Generation Systems for Energy Efficiency / Pollution Reduction
- Rationale for *Local Economic Development* Project Bias:  
HARBIN NEEDS ECONOMIC DEVELOPMENT BASED ON A HIGHER  
VALUE ECONOMY & SUSTAINABILITY TO IMPROVE LIVING STANDARDS

# Potential Airport New Town Site: Harbin



Source: Harbin Western Area

# Potential Airport New Town Site: Harbin



Source: Harbin Western Area

*THANK  
YOU*