METROPOLITAN GOVERNANCE IN CHINA: PRIORITIES FOR ACTION IN THE CONTEXT OF CHINESE URBAN DYNAMICS AND INTERNATIONAL EXPERIENCE

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EXECUTIVE SUMMARY

Objectives and Rationale

In the context of international learning and Chinese urban dynamics, key issues facing Chinese metropolitan areas, and priorities for action to improve metropolitan governance are identified.

Improving metropolitan governance in China is important because: (i) Current inefficiencies mean that large gains can be realized quickly, e.g., irrational routing of trunk infrastructure to stay within local jurisdictions, proliferation of industrial zones, (ii) Metropolitan and megapolitan regions, have economic importance far beyond their demographic share, and this dominance is increasing. Accordingly, any initiatives that improve the efficiency of metropolitan areas as environments for production, transactions, innovation and day-to-day life will have highly leveraged socio-economic and environmental impacts in China. For example, by 2020, the three largest megapolitan regions, the Pearl River Delta (PRD), the Lower Yangtze Delta (LYD), and the Beijing – Tianjin Region (BTR) will account for 65% of China’s economic output, but only 18% of the population.

International Experience

The experience of eight selected metropolitan regions in developed countries is reviewed. These metropolitan regions were selected because they represented varying approaches to metropolitan governance. United States (US) metropolitan areas have had to learn how to function while local jurisdictions retained close to full autonomy. The result has been the rise of Special Districts, which undertake one or more specific functions, e.g., sewerage, at the metropolitan scale. There are now over 36,000 Special Districts in the United States, compared with 15,000 in 1977. Also of interest in the US is the important role that civic organizations play in metropolitan governance. For example, the Regional Planning Association, a voluntary organization strongly supported by urban professionals, has significantly shaped the tri-state New York Metropolitan Region’s future since 1922, largely by working closely with local agencies (particularly the Port Authority of New York and New Jersey), in the context of state and federal government frameworks, e.g., matching grants to transportation systems. In Europe, metropolitan governance is often more unified and top down, and is especially known for achievements in utilizing transportation investment, closely aligned with land use planning to realize compact, energy saving, pedestrian friendly urbanization. The polycentric Randstad Region and London are prime examples of effective and innovative metropolitan governance in Europe. In East Asia, metropolitan governments have had to cope with rapid growth over the last several decades creating volatility, and the need for focus on fiscal management and infrastructure investment. For example, the Tokyo Metropolitan Government, the largest metropolitan government in the world (in terms of population), covering virtually all of the built up Tokyo region, is known for its efficient service delivery and land use planning, using innovative tools such as land readjustment. However, it is currently coping with the dramatic fiscal and social service impacts of a stagnant or declining population, associated with rapid aging of the population, a future that has caught the system somewhat off-guard.

For purposes of this paper a metropolitan region contains at least 1.5 million people within its immediate economic hinterland. A megapolitan area contains at least two metropolitan regions linked by substantial physical (often corridors) and economic flows, and a total regional population in excess of 10 million people.
Several lessons are clear from the international experience, applicable both to China, and more generally to middle and developed metropolitan regions worldwide:

(i) Metropolitan areas should be geographically large enough to encompass new development. The usual case is for the metropolitan governments to under-bound the built up urban area, e.g., Seoul, Toronto, and Bangkok. A game of spatial catch-up ensues, usually unsuccessfully because local governments in metropolitan areas do not like to be put out of business through amalgamation.

(ii) Because metropolitan areas are almost more sensitive to the global economy than smaller settlements and pioneer socio-economic change, they can be unexpectedly hit with shocks that require rapid response, e.g., Seoul and Bangkok after the 1997 financial crisis. Effective metropolitan governance means carefully anticipating external shocks and change, not just “minding the shop”.

(iii) Infrastructure is the prime shaper of metropolitan spatial structure, and should be used to shape cities. However, mechanisms to finance large-scale trunk infrastructure that would lead, rather than follow metropolitan physical growth are often not adequate.

(iv) Vertical functional mandates within metropolitan areas, e.g., between districts, counties and the municipality, are often unclear, and/or do not correspond to the spatial scales at which different services are best delivered. Similarly, incentives and institutional structures to induce horizontal co-operation among local governments, e.g., districts sharing a landfill, are often not in place.

(v) Significant fiscal disparities among local governments in metropolitan regions is common, often the product of fiscal systems that favor jurisdictions undertaking certain economic functions, e.g., manufacturing. Mechanisms to transfer fiscal resources to sub-metropolitan jurisdictions with special functions or needs may be needed, e.g., to perform environmental services, or to address the training needs of a concentrated disadvantaged population.

(vi) The role of civil society is important in metropolitan governance in many parts of the world. For example, the current Chicago Metropolis 2020 initiative represents a continuation of long-standing key involvement of the Commercial Club of Chicago in metropolitan governance. In Phoenix, US, business groups partner with local government in facilitating economic development processes at the metropolitan scale (the Greater Phoenix Economic Council).

Chinese Metropolitan Governance: Key Issues

There are over 150 Chinese metropolitan regions, overwhelmingly concentrated in the eastern half of the nation, largely corresponding to the overall distribution of China’s population. Municipalities, composed of Urban Districts (which collectively form the City Proper) and Counties, over bound actual built-up urbanization with a few exceptions such as Shenzhen and Guangzhou. Within the Municipality, Urban Districts, and Counties, a set of Bureaus exists, e.g., Construction, Environment, Public Security. Despite the overall appropriateness of the foregoing structure for effective metropolitan governance, Chinese metropolitan regions face pressing issues. This is not surprising given their rapid demographic and economic growth over the last two decades, which coincided with a dramatic transition to free market urban economies, including establishment of vibrant land and housing markets (Technically land is leased for 70 years for residential purposes, tantamount to ownership). Key issues include:

(i) Lack of a Unified Metropolitan Administrative Authority. Particularly in the affluent coastal areas, Urban Districts and Counties, with strong revenue bases, and close ties to local firms, operate increasingly independently from Municipal Governments. Although formal Municipal powers are the same nationwide, in the Interior, and particularly the West, Municipal Governments are able, or willing, to exert greater authority. This may be a case of greater capacity and private wealth at the County level in coastal metropolitan areas, enabling Municipalities to be less active, rather than a case of Municipal Governments being more “metropolitan oriented” in the Interior and West. In
particular, Counties act independently within Metropolitan areas and are often reluctant, with exceptions, to be up-graded to the status of Urban District, which would cause them to lose autonomy, particularly in fiscal/budgetary matters.

(ii) *Unclear allocation of functions and a mismatch between function and fiscal resources.* Since the Chinese Constitution does not mandate the roles of different levels of Government, nor are there national administrative guidelines per se, urban functions are often duplicated at different levels, or undertaken at inappropriate levels. For example, major arterial roads may be inappropriately routed and built by Counties.

(iii) *Chasing Manufacturing and Property Development.* The fiscal system encourages local governments (Districts, Counties) to chase manufacturing to receive shared corporate and excise taxes, a portion of which is returned to sub-national governments. This encourages a proliferation of industrial zones, contributing to inefficient metropolitan spatial structure. Given the competition for manufacturing, less desirable areas attract a concentration of low end, e.g., polluting, industry. At the Municipal level, the reliance on land lease sales as the prime source of revenue (literally billions of US dollars over the last 20 years in most metropolitan areas) encourages over-release of land (leading to lower prices) contributing to lower densities, sprawl, etc.

(iv) *Fiscal – Budget Complexity.* Official fiscal systems / budgets often represent half or less of public funds being processed by Municipal and County Governments. Although these official budgets are often quite transparent (many urban jurisdictions publish them in the local newspaper), off-budget activity is often obscure. This situation, two sets of budgets and lack of transparency in off-budget activities, makes rational programming-budgeting, including capital budgeting, more difficult at the Metropolitan scale. For example, large numbers of concession-type agreements, e.g., toll roads, are often awarded on an ill-advised ad hoc basis, making regional travel expensive, and inefficient, due to incrementally designed networks.

(v) *Low Quality Peripheral Development.* Worldwide, most cities expand primarily on their built up margins, thus the quality of peripheral development is very important. In China, such expansion usually occurs in Counties. Counties have very poor environmental performance, often not monitoring their environments closely (despite a requirement to do so), with local officials rewarded for short-term economic performance, especially in regard to manufacturing. (This situation is starting to change.) Environmental emissions in metropolitan areas, from Counties, may impact the whole metropolitan area through downstream and downwind effects. Furthermore, Counties, with the exception of high level Economic and Technical Development Zones (which are controlled by the Municipality – split off from Counties), tend to convert rural land to urban uses on a small site, piecemeal basis, creating peri-urban landscapes that may be difficult to retrofit later, when their poor quality and low densities is no longer acceptable.

(vi) *Inappropriate Physical Planning Systems.* The physical planning system utilized in virtually all Chinese Municipalities tends to rely on master planning, rather than leading edge strategic planning, performance based area planning, etc. This static approach to planning is poorly suited to rapidly growing Chinese metropolitan regions. Urban plans are often unrealistic, i.e., do not reflect market forces, public investment by important government agencies, e.g., airports, Hi-Tech parks. Physical plans are frequently unimaginative, prepared using mechanistic standards by Urban Design Bureaus, given the lack of significant private urban planning capacity. The result is that the plans are not respected, and therefore do not guide the actions of other government bureaus and the private sector. The land quota system is breaking down through “gaming” of the system, e.g., a jurisdiction will remove less desirable land (e.g., remote, rough terrain) from urban status, enabling it to effectively increase its land quota. This situation would be of less concern if the primary land market and the land use planning systems were performing more effectively.

(vii) *Inefficient Urban Form.* Of increasing concern, especially with the rising cost of energy, is the spatial structure of Chinese metropolitan regions. Leap-frog physical development is the norm with
very lengthy peripheries hiding large amounts of undeveloped land within edges. Processes contributing to leap-frog development include historical factors (satellite industrial towns), aggressive investment in urban infrastructure by outlying Counties causing development to bypass Counties closer to the center, the impact of excessively high Ministry of Construction standards (e.g., too wide roads) on peri-urban development, and under-priced land release, especially for manufacturing, in the primary market (i.e., land sold directly by governments). But there is a positive side to this condition - much land is available for in-filling in Chinese metropolitan areas, and is increasingly occurring in metropolitan regions such as Guangzhou and Chengdu.

Chinese Metropolitan Governance: Policy Responses

In response to the foregoing issues, the following possible policy initiatives are suggested for consideration:

(i) Strengthen Municipal Authority. Municipalities should use their powers more extensively to effect metropolitan – wide planning, and construct and/or manage infrastructure and services most efficiently delivered at a metropolitan wide scale. In instances where this proves impossible, e.g., delivery of certain functions in affluent coastal regions, mechanisms should be put in place that encourage horizontal co-ordination among local governments in the Metropolitan Region. (Many proven mechanisms exist to do this, e.g., Councils of Local Governments, Special Districts, Bilateral and Multi-lateral Contractual Agreements, often encouraged through matching grants from senior governments.) Counties should be upgraded to Urban Districts much earlier in the urbanization process. In all cases, Municipal metropolitan leadership should be informed, through systematic bottom-up processes by the perspectives (voice) of sub-Municipal governments and their stakeholders, even if these lower level governments are not responsible for the delivery of the function in question.

(ii) Create more Provincial Level Cities. Given the clear Constitutional status of Provincial Level Cities (four exist: Beijing, Shanghai, Tianjin, Chongqing) and their clearer mandate (compared with Municipal Governments) to guide metropolitan development and to act rapidly in concert with the national government, many more Chinese metropolitan regions should be up-graded to this status as soon as possible. Simultaneously, the new (and existing) Provincial Level Cities should be mandated to pursue metropolitan-wide governance, as indicated above (i).

(iii) Overall reform of urban fiscal systems is needed. As a general principle, key revenue sources available to local urban governments should not be highly biased toward certain economic functions. A property tax system should be considered, given that primary land lease sales, which are currently the main source of revenue for Municipal governments, are a one-off phenomenon. There would be many benefits from introduction of a property tax system, e.g., less incentive for private owners to hold idle land, and for local governments to chase manufacturing relative to other land uses, plus there would be less fiscal sensitivity to economic cycles. Reform of metropolitan fiscal systems would result in Municipalities having ample revenue to transfer funds to sub-metropolitan jurisdictions performing valued metropolitan wide services. For example, a County acting as the lungs of a city by providing widespread green space could be rewarded through fiscal transfers. (This situation is emerging in Chongming County in Shanghai. In Chongming, the Shanghai Government has begun construction of an “eco-city” named Dongtan, designed to be a showpiece sustainable city of 20,000 residents by the time of the 2010 Shanghai Expo.)

(iv) Finance for Pro-Active Infrastructure Development. Given the importance of pro-active infrastructure development in shaping cities (corridors, suburban centers), improving energy efficiency, etc., effective means to finance high cost/value infrastructure systems in metropolitan areas are needed. Although systems are in place, e.g., the increasing role of the Chinese Development Bank in urban lending, the national bond system to finance infrastructure development in the West, lending by multilaterals such as the World Bank, much more needs to be done, e.g., issuance of
bonds by the largest cities such as Shanghai, and development of on-lending systems catering to smaller credit-worthy metropolitan regions.

(v) Increased involvement of civic organizations in Chinese metropolitan management. International experience indicates significant benefits from civic society involvement in metropolitan planning and management. Most realistically, this could start with growing involvement of local branches of professional organizations (e.g., the Chinese Association of City Planners, Chinese Association of Architects, Chinese Association of Land Economics / Surveyors) and business associations, e.g., local industrial, trade and cluster associations. (The latter is emerging, e.g., the role of the Shoe Cluster Association in Chengdu’s governance, the role of industrial groups in metropolitan coastal areas such as Xiamen.) Other types of civic organizations, e.g., environmental, could follow.

(vi) National Recognition of Megapolitan Planning. China contains three megapolitan regions (Lower Yangtze Delta, Pearl River Delta, Beijing – Tianjin Region) while at least five others are emerging, e.g., the Chongqing – Chengdu Corridor, the Ha-Da-Qi (Harbin – Daqing – Qiqihar) Corridor. A regional structure plan has already been prepared for the Beijing – Tianjin Region, while a sixteen Municipality development co-ordination system is active in the LYD. Ongoing activities of the latter include regular meetings of the mayors of the sixteen Municipalities and regular meetings on economic cooperation organized by the policy advisory bodies of each Municipality. The national government should put forward guidelines to encourage and make official megapolitan scale coordination, i.e., cross-Provence and cross-Municipal strategic planning and development coordination in megapolitan regions.

(vii) Development of Metropolitan and Megapolitan Data Sets. The US officially defines micropolitan and metropolitan areas, and may shortly officially recognize megapolitan regions. (These data sets are separate from the US urban – rural data set, which is similar to China’s.) China should consider officially defining such regions, which correspond better to contemporary real urbanization patterns, releasing data sets from the Census, etc. on such spatial bases, in order to facilitate understanding of megapolitan scale development. This would significantly support megapolitan scale strategic planning, as advocated above (vi).
1.1 Introduction

This Chapter reviews current innovative practice in metropolitan governance in developed countries. These metropolitan regions were selected because they represented varying approaches to metropolitan governance. Metropolitan governance in these nations is relevant to China because leading Chinese metropolitan systems will soon achieve developed status, considerably ahead of the Chinese national economy as a whole. The case studies examined, and the prism through which the analysis was undertaken, are based on priority Chinese issues and policy objectives (see Chapter 2). Accordingly, selected substantive themes are pursued, especially the role of civil society in metropolitan governance, fiscal sustainability and equity, intra-metropolitan urban form, and the role of metropolitan governance in economic development.

Most content in this Chapter is presented in the form of Boxes, outlining what is most striking in terms of metropolitan governance in the eight case study metropolitan systems assessed.

Governance – not Government

This Paper purposely addresses the issue of Metropolitan Governance, not just metropolitan government. We are only interested in agencies (whether government or non-government) that affect the whole metropolitan region, particularly in terms of cross-jurisdictional (horizontal) co-ordination. In other words, we are not interested in the myriad of government initiatives undertaken within specific jurisdictions in a metropolitan region, but rather focus on those institutions that attempt to improve metropolitan wide performance.

Governance includes (i) formal government institutions, (ii) private, often corporate, bodies, and (iii) the space between them, namely civil society. Our stance is driven by two factors: (i) China is currently characterized by a relatively thin civil society, but the Government has indicated a desire to thicken this dimension of metropolitan governance, and (ii) there is a track record of successful civil society involvement in metropolitan governance in developed countries, the most obvious case being the long, and influential involvement of the Regional Planning Association in development of the thirty-one county New York – New Jersey – Connecticut Megapolitan Region\(^5\) (since 1922, producing the first regional plan in 1929). This model of civil society involvement in metropolitan planning has been replicated in many metropolitan areas throughout North America.

International Variation

Civic organizations are most important as agents of metropolitan governance in the United States. Fiscal considerations are at the forefront in many East Asian cities, e.g., Tokyo, but also in some United States (US) ones, e.g., Minneapolis-St. Paul (Twin Cities). Canadian metropolitan governance structures tend to stress effective delivery of services and incorporation of disadvantaged groups into the urban opportunity structure. Continental Europe is known for achievements in utilizing transportation investment, closely aligned with land use planning to realize compact, energy saving, pedestrian friendly urbanization. A further characteristic of European metropolitan is the significant role that national governments play in guiding metropolitan urbanization in many cases, e.g., the Randstad, as well as the role of the supra-national European Union (EU) in facilitating the integration of metropolitan systems into megapolitan systems facilitated by European-wide economic and transportation/logistics systems, e.g., the expanding high speed rail system (HSR). Economic development is a key priority of metropolitan governance in many US systems (Chicago, Phoenix), and British ones (London, Glasgow).

\(^5\) Megapolitan is defined in Chapter 2.
Structure of Metropolitan Governance

In addition to pursuing selected substantive topics, identified above, we assess the structure of metropolitan government, which varies widely, e.g., (i) unicities (Tokyo Metropolitan Government, Calgary, Winnipeg), (ii) unicity core and limited co-ordination of analysis and planning (by a senior government) for the wider extended urban region (Bangkok Metropolitan Region, Greater Toronto Area, Seoul Metropolitan Area), (iii) Special (or Regional) Districts which deliver one or more services metropolitan wide, while retaining autonomous jurisdictions such as cities (Greater Vancouver Regional District, East Bay, California, and Minneapolis – St Paul), (iv) Strong metropolitan government but continued existence of a lower tier of Cities, Districts, or Boroughs (London, Seoul Metropolitan Government), and (v) Civil society led metropolitan co-ordination of highly autonomous sets of local governments (New York, Chicago), the latter often combined with regional district delivery of specific services, and (vi) national government led co-ordination of extended urban region or polycentric region governance (the Randstad). The foregoing classification should not be viewed as mutually exclusive or exhaustive. Examination of world-wide practice reveals that metropolitan jurisdictions mix and match the above structures/systems.

In assessing metropolitan governance, it is important to take a dynamic perspective as structures and processes frequently change. For example, the current city of Toronto (a unicity) was once composed of 13 separate jurisdictions, the Bangkok Metropolitan Administration was once separate cities (Bangkok and Nonthaburi) on either side of the Chao Praya river. But the trend is not always toward amalgamation, in Los Angeles, areas attempt (sometimes successfully) to secede to create small, but more homogenous socio-economic units, with significant intra-metropolitan fiscal implications. (Affluent communities do not want to share their largesse with the larger urban system, especially in terms of primary and secondary education.) Demographics of a metropolitan region is an important variable. Fast growing cities, such as Toronto and Phoenix and Shenzhen usually outpace the boundaries of metropolitan governance mechanisms., even . For example, what was formerly known as Metropolitan Toronto is completely built out, Chinese Counties are often upgraded to Urban Districts (and thereby more fully integrated into Municipal scale metropolitan planning and management) too late, long after they are dominantly urban in character.

1.2 The North American Experience

The common perception of United States metropolitan regions is that of weak metropolitan government. Metropolitan regions, such as Chicago, may have hundreds of local jurisdictions (385 in the case of Chicago), and, in some urban regions, such as Los Angeles, the number is actually increasing as existing jurisdictions split. Although this picture is not inaccurate, it hides learning of considerable relevance. This is because US metropolitan areas have had to learn how to function successfully as metropolitan entities, while local jurisdictions retained essentially full autonomy. The result of considerable adaptation is pragmatic systems that often work surprisingly well. What is most surprising is the wide variation in metropolitan governance systems in Canada and the United States – in response to differing local cultures, political realities, the age and socio-economic/demographic trajectory of the metropolitan region, etc.

An important lesson from the US metropolitan experience is the key role that civic organizations play. In Silicon Valley (a sub-metropolitan area – the world’s leading innovation area), New York, Chicago, Phoenix (four of the ten largest Standard Metropolitan Statistical Areas [SMSAs] in the US), civil society organizations literally drive metropolitan governance. This is not a new tradition, the Regional Planning Association (RPA), has been instrumental in shaping the tri-state New York-New Jersey – Connecticut region since 1922. In the United States, civic group metropolitan leadership is predominantly from the business community, as in Chicago or Phoenix (the Greater Phoenix Economic Council), or from the urban design / city building community, particularly

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6 The GPEC is complemented by the more interest group oriented Valley Citizens’ Forum which attempts to co-ordinate development in the eastern (more affluent) half of the Greater Phoenix region.
professional groups, as in New York. (See Box 2 for an assessment of the Chicago case, and Box 2 for an assessment of the New York case.) In the United States, groups associated with business and city building professions have enjoyed considerable credibility (often more than local politicians), enabling them to exert considerable influence.

**Box 1**

**New York Metropolitan Region: A Legitimized Civil Society Approach to Megapolitan Planning: The Pioneering Role of the Regional Planning Association**

The New York metropolitan region (NYMR) is the most populated urbanized area in the U.S. (2005 U.S. Census Bureau CSA pop. 21.9 million), and based on the UN urban agglomeration classification, the third largest in the world (after Tokyo and Mexico City). It covers 31 counties of the tri-state New York-New Jersey-Connecticut region encompassing 33,670 sq km. New York City, the core of the metropolitan region has a population of over 8.1 million with an area of 830 sq km, only 2.5% of the land area of the metropolis. A *global city*, New York is known for international finance, fashion, entertainment and culture. New York City itself has been a metropolitan municipality with a strong mayor-council government since its creation, the product of a consolidation of a number of autonomous local governments in 1898. The mayor is elected to a four-year term while 51 councilors are elected to two-year terms, strengthening the power of the mayor.

There is no “official” regional planning organization for the NYMR, but the Regional Plan Association (RPA), as an independent, not-for-profit regional planning organization is highly influential in planning both the region and its component jurisdictions. It is the de facto Regional Planning agency for the NYMR, having more power and a more impressive track record than virtually any metropolitan planning organization in the United States. This civil society based approach to planning in the NYMR is not regarded as a stepping stone to legal formalization, but a more advanced approach to regional planning based on collaborative planning, currently in vogue in both governmental and academic circles. Collaborative planning involves bringing representatives of key interests to the table, governments being only of the parties involved, although they are expected to legalize most outcomes of the process (some initiatives can be implemented purely through non-governmental means). The RPA’s de facto legitimacy and stellar reputation is the product of two factors, its long history, and the high quality of its work. It was established in 1922.

RPA has played a key role in shaping the Region’s transportation systems, protecting open spaces, and promoting high quality urban development. The First Regional Plan completed in 1929 set the form for the Region’s growth over the next several decades, correctly identifying transportation and open space networks as the key levers to shape the Region. The Second Regional Plan in 1968 successfully targeted: (i) restoration of the Region’s deteriorated mass transit system, and (ii) revitalization and strengthening of urban centers to make mass transportation more viable, preserve natural resources, and create areas of high urban intensity within the vast Region. The Third Plan, in 1996, *A Region at Risk*, addressed the Region’s extreme fiscal problems. In the post 9/11 period, RPA has been involved in the redevelopment of lower Manhattan, seriously damaged by the terrorist attacks, as well as strengthening disadvantaged communities such as East Harlem, through community based activities.

As well as being a world-class regional research and planning organization, RPA has considerable strengths as an advocacy organization, an educational and awareness agency (working with local governments, communities, and the public), the latter strengthened by partnerships such as with the Institute on Community Design at Princeton University. One of the greatest strengths of the RPA is its links with leading US professional groups such as the American Institute of Architects (AIA), the American Institute of Planners (AIP), and the American Society for Public Administration (ASPA). Strong professional connections enable the RPA to access some of the best talent in city building, at affordable rates, or even on a voluntary basis.

RPA always takes an interdisciplinary perspective that integrates economic development (competitiveness), human resources and the human condition, land use, transportation, and environmental and design expertise. To implement, RPA’s main strategy is to build an alliance of various stakeholders, including local governments, interest groups (e.g., environmental), professional groups, and the business.
Given the enormous power of the Port Authority of New York and New Jersey, RPA has long worked closely with them, using the Authority as a lever to shape the Region.

Key References:


Civic Alliance (2006), *About Civic Alliance*, Regional Planning Association, available online at www.civic-alliance.org

Regional Planning Association (2006), *About RPA*, available online at www.rpa.org

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**Box 2**

**Chicago: Institutionalization of a Civic Metropolitan Initiative**

Chicago grew from under 30,000 people in 1850 to 1.1 million in 1890. The world had never seen such fast urban growth. As such, the city is of considerable relevance to fast-growing Chinese metropolitan areas today.

The Chicago metropolitan area, with a population of 9.4 million covers 6 counties. These six counties, in turn, include 113 townships, 272 municipalities, 303 school districts, and 587 special purpose governments. The Metropolitan Mayors Caucus, formed in 1997, which includes the 272 mayors, all of equal standing, has difficulty resolving contentious issues. Yet Chicago works, and is able to undertake strategic initiatives, such as enlarging O’Hare airport, one of the most important in the world. How does it do this?

Chicago has always been governed by the business community. By the end of the nineteenth century, Chicago’s business leaders had made considerable money out of America’s western expansion, had seen new city planning ideas in Europe, e.g., the 1899 Paris World’s Fair, and wanted to make Chicago into the “Metropolis of the Middle West”. Accordingly, in 1909, the Commercial Club, a membership organization of leading metropolitan area business and civic leaders started in 1877, commissioned one of its members, Daniel Burnham, to draw up a plan for Chicago; he created a plan that drew much inspiration from Paris, and to this day, shapes Chicago’s metropolitan structure.

This same Commercial Club of Chicago marked Chicago’s millennium in 1996 by forming six committees to rethink the metropolitan region’s future. Based on their work, a new organization: “Chicago Metropolis 2020” was created in 2000 after the release of, *Chicago Metropolis 2020: Preparing Metropolitan Chicago for the 21st Century*. By 2006, the Metropolis Project’s efforts resulted in the establishment, by the Illinois State General Assembly, of the Regional Planning Board with broad, bipartisan support. This Board is now responsible for coordinating regional land use and transportation planning in northeastern Illinois. The Board will report back to the Governor and the Illinois General Assembly by September 2006 with specific legislation to accomplish the tasks outlined in its establishing legislation, motivated by the work of *Chicago Metropolis 2020*.

*Chicago Metropolis 2020* includes representatives of business, labor, civic and government organizations. The committees regularly consult with experts and meet with regional community, civic and government representatives. Issues of major concern to the committees include low-density sprawl, concentration of poor minorities, the spatial mismatch between jobs, affordable housing and transportation, and disparate degrees of access to quality education.

With an advocacy role and civic leadership, Chicago Metropolis 2020 has championed a number of regional initiatives and their implementation. For example, the Chicago region will benefit from integrated transportation planning as a result of an updating of the Chicago Regional Planning Act in August 2005. A Regional Learning program pioneers metropolitan education; it is an ongoing public outreach campaign focusing on issues that transcend local political boundaries. Its flagship output is the Metropolis Index, an
The assessment of key issues facing the Region including: housing, education, innovation and entrepreneurship, land use, safe neighborhoods, and economic competitiveness.

The Chicago Metropolis 2020 initiative is a prime example of a metropolitan wide civil society governance organization undertaking metropolitan governance. To a very significant extent, the State and local Governments accept and legalize the results of this strategically oriented metropolitan planning process. More than in the case of the New York Metropolitan Region, where civic-based metropolitan governance is based more on the professional community, in Chicago, always known as a business city, metropolitan governance is based on the initiatives of the business community, as has been the case for over 100 years. However, over the last several decades, other community stakeholders have been incorporated into the process, making it more representative. It is not surprising that Chicago advertises itself as “the city that works”.

Key References:

Chicago Metropolis 2020, About us, available online at www.chicagometropolis2020.org

Chicago Metropolis 2020, available online at www.cm2020.org


United States metropolitan management is well known for Special Districts (or Regional Districts). Special Districts are not local governments (although they may evolve into metropolitan governments). Rather, they are products of adaptation, set up to deliver a service, or services, best undertaken at a larger spatial scale than the typical local government. Essentially they are the product of an inability to amalgamate local government units in the US (i.e., move toward the unicity model),7 or create powerful metropolitan governments, as in Tokyo or London. Often, their first function is related to a basic need, e.g., sewerage (as in the case of the East Bay Municipal Utility District [EBMUD] in the San Francisco Region), then, other services are added. Special Districts generally have a positive track record in the US, significantly accounting for the satisfactory, or better, performance of many US metropolitan systems. Special Districts are the only type of governance unit in the US that has grown rapidly since 1977. There are now 35,356 Special Districts in the US. (2002 US Census of Government) compared with 15,174 in 1977.8 Most of these Special Districts are in metropolitan areas. Often associated with metropolitan regions characterized by widespread use of Special districts, although not always, are Federations of Local Governments (FLGs), sometimes termed Councils of Local Government (CLG). FLGs are voluntary organizations of local governments in metropolitan areas designed to encourage co-operation in co-ordination of metropolitan government. FLGs are not limited to the United States, they are found in many other jurisdictions, e.g., Australia. Because these bodies are voluntary, they do not require local governments to cede power, unacceptable to most local governments.

The Greater Vancouver Regional District (GVRD) in neighboring Canada is universally regarded as an example of one of the world’s best performing metropolitan governance systems. (See Box 3.) In the GVRD case, new functions and local governments have been added over the years, and innovative measures have been introduced, e.g., establishment of bi-lateral arrangements with adjacent, still primarily rural, peri-urban jurisdictions, and advancing thematic cross-functional agendas, such as the Livable Region Strategic Plan initiative, introduced in 1996.

7 For more detail, see: Phares, D., Metropolitan Governance Without Metropolitan Government, Hants: Ashgate, p 18

8 On the other hand, the number of Counties has stayed stable (3,034 in 2002 versus 3,042 in 1977), as has the number of Municipalities (19,431 in 2002 versus 18,862 in 1977) and Townships (16,506 in 2002 versus 16,822 in 1977), while the number of school districts has been cut substantially through consolidation (13,522 in 2002 versus 15,174 in 1977).
Box 3

Greater Vancouver Regional District: An Evolutionary Approach to Regional District Based Metropolitan Planning & Management

The Greater Vancouver Regional Districts (GVRD) was established in 1965; it now encompasses 21 municipalities that make up the metropolitan area of Greater Vancouver, an area that is home to 2.1 million people (2005), forecast to reach 2.7 million by 2021. The GVRD was originally constituted to deliver services most efficiently accomplished at a regional level, namely sewerage, drinking water, health/hospitals, and industrial development services. It has added functions over the years, including recycling, affordable housing, regional parks, air quality control, labor relations, and emergency communications (911). GVRD’s mandate is to cost-effectively deliver utilities services at the regional scale, to plan and manage regional growth and development, and to protect and enhance the quality of life in the Region. The GVRD’s Board of Directors is the primary decision-making body and collective voice in regard to regional development issues. The Board of Directors is comprised of mayors and councilors from the member municipalities. Board meetings are held once a month and are usually open to the public. The GVRD stresses the involvement and participation of interested members of the general public.

Under the umbrella of the GVRD, there are four separate legal entities: the GVRD/University of British Columbia (UBC) Joint Committee, the Greater Vancouver Water District (GVWD), the Greater Vancouver Sewerage and Drainage District (GVS&DD), and the Greater Vancouver Housing Corporation (GVHC). In addition, the Greater Vancouver Transportation Authority (Trans Link) was formed in 1998 as a body associated with the GVRD to coordinate and implement transportation plans and services for the movement of people and goods in the Region. Trans Link also operates the Air Care program, which aims to improve air quality by reducing harmful emissions from automobiles. From 1992 to 2002, the program is credited with reducing air emissions in the urban area by thirty-five percent.

Vancouver has received numerous international awards, and ranks amongst the most livable cities in the world, according to premier media, such as, *The Economist*. Maintaining this quality of life is a significant challenge particularly in the face of population pressures, changing demographics, and economic re-structuring, plus demands for housing and employment associated with rapid growth.

In 1990, the GVRD Board produced, *Creating our Future: Steps to a More Livable Region* to respond to challenges facing the Region. It engaged more than 4,000 residents in a public consultation process. The over 200 issues identified in the process resulted in agreement to take 54 actions, incorporated in the, *Livable Region Strategic Plan*, introduced in 1996. Importantly, like most metropolitan agencies worldwide, the Regional strategy advocates development of *Regional Towns* to minimize urban sprawl, commuting, and air pollution. Other agencies, the private sector, and residents use the plan to understand and contribute to Greater Vancouver’s vision for its future development. It helps all stakeholders “to face in the same direction”.

To improve metropolitan governance, the GVRD set up the Sustainable Region Initiative Forum. Regular discussion and meetings such as sustainability community breakfasts and regional dialogues are organized. In addition, the Greater Vancouver Economic Council (GVEC) has been established as the catalyst to deepen high promise industrial clusters and thereby enhance the regional economy. An important mandate of the GVEC is to take the lead in attracting investment to the Region through marketing and branding. GVEC’s mission is to support development, positioning the Region as the West’s Gateway to Asia and Canada’s “Creative City”.

Much can be learned from the GVRD case. Of note is its evolutionary character. Although originally created to deliver “routine” functions such as sewerage, it has steadily added functions over the years as confidence in its role has increased. It does this in two ways: (i) internally, e.g., through agencies such as the GVHC, which operates within the GVRD’s institutional framework, and (ii) by spinning off entities such as the GVEC. Although it increasingly appears to be a regional government, it denies this role, being careful to allow constituent municipalities to maintain their autonomy. Important in this regard is the fact that municipalities can choose to opt out of any function or service provided by the GVRD. Much of GVRD’s success can be explained by its ability to mediate tensions between the British Columbia
Other lessons can be learned from the North American experience. One is that making national funding to governments, agencies, and regional districts in metropolitan areas conditional on planning, air pollution reduction, etc., can carry weight. The best example is the Atlanta Metropolitan Region (which anchors the Piedmont Megapolitan Region), strung out along the I-94 expressway, the most sprawling metropolitan region in the world. The US federal government cut off transportation matching funding to the Atlanta metropolitan area until it developed a regional plan to better shape the region’s development – compliance resulted.

A noticeable trend in North America has been that new metropolitan areas have many fewer local jurisdictions than do older metropolitan regions (e.g., Chicago) or middle aged ones (e.g., Los Angeles). This enables more coherent governance of the metropolitan region. For example, Greater Phoenix, the seventh largest metropolitan region in the US (over 4 million population) has 13 local governments compared to 385 in Chicago and 200 in Minneapolis – St. Paul; the Las Vegas metropolitan region, the fastest growing in the US, with a current population over two million has only five. This trend parallels a similar dynamic in China, discussed in Chapter 2, where “newer” western metropolitan regions (Municipalities) exert much greater control over their metropolitan regions than do the coastal and eastern cities, e.g., Shanghai. We would like to think that this trajectory in the US is the result of a quest for better metropolitan governance based on applying past learning, but other factors are also at play. These include the very rapid growth of the “New West” metropolitan regions (e.g., Las Vegas, Phoenix, Tucson, Salt Lake City, Calgary, Edmonton) meaning that there was less time for community-based small jurisdictions to form, and, arguably, there is greater spatial socio-economic heterogeneity in the new west metropolitan regions.

In sum, in the United States, as noted by Phares, a relatively successful model has evolved, one that does not require local governments to amalgamate or cede large amounts of power, but benefits from economies of scale and network rationalization through use of Special Districts, and from the tendency of metropolitan areas to undertake strategic planning, and marketing / promotion at a metropolitan level, often led by strong civic organizations.

Phares refers to a third wave in the development of US metropolitan governance. This third wave, really a refinement of the foregoing, is epitomized by: (i) Direct involvement of civil society in metropolitan governance. (ii) More emphasis on partnerships, both public-private, and among jurisdictions within a metropolitan area. (iii) Increased use of collaborative planning, i.e., real bargaining among representatives of interest groups to develop Visions, Strategies, etc., in which local governments are just one of the parties at the table, but who ultimately legalize outcomes from such collaborative processes.

Much has been written about Toronto’s metropolitan governance, of late, some negative. (Box 4 describes the main characteristics of the Toronto’s case.) As noted in the Box, local jurisdictions in what used to be called Metropolitan Toronto have been amalgamated into the new City of Toronto, with a population of about 2.3 million. However, this “reform” has failed to keep pace with the accelerating physical spread of Toronto, and the transformation of its physical structure toward a multi-nodal model (based on the rapid development of significant exurban centers such as

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9 Phares, p 24
Mississauga), and away from the monocentric structure for which Toronto was well known in the past.10 Local governments in The Greater Toronto Area (GTA), with a population of 5.6 million people (most residents of the GTA live outside the City of Toronto) operate virtually autonomously from the City of Toronto. Although the Ontario Provincial Government, through its Ministry of Municipal Affairs and Housing undertakes statistical and economic analysis for the GTA, and the Greater Toronto Marketing Alliance, a civic group, driven by business, is becoming more effective in marketing the Region, there is no formal metropolitan government that encompasses the extended urban region as a whole, nor no civic organization with deep legitimacy and high profile. On the other hand, critics taking a bottom up perspective point out that the City of Toronto is too large to effectively interact with neighborhoods and citizen’s groups, especially given the fact that Toronto is well known for its distinctive neighborhoods, as touted by Jane Jacobs, the prominent urban commentator, who lived much of her life in Bangkok.

Box 4

City of Toronto / Greater Toronto Area: Struggling to Keep up with Spatial Expansion

The Greater Toronto Area (GTA) is the largest metropolitan area in Canada with a population of 5.6 million (2005), 15.9% of Canada’s population. The GTA’s total area is over 7,000 sq km. and covers the City of Toronto, and the 4 regional municipalities of York, Halton, Peel and Durham (which, in turn, contain 25 municipalities). The GTA is one of the North America’s fastest growing economic regions, a leading destination for international migrants. It is known for a positive business climate, the product of advanced transportation and communication systems, skilled human resources, and relatively low costs of doing business and living. The term of GTA came into usage in the mid-1990s after it was used in a widely discussed report on municipal governance restructuring in the region, prepared by the Ontario Provincial Government. However, to date, no one institution, official or a civil society group, with legitimacy, such as the Regional Planning Association in the case of the New York Metropolitan Region, is responsible for strategic planning in the GTA.

The Provincial Ministry of Municipal Affairs and Housing does undertake analysis on a regional basis, and is encouraging more formalization of the GTA concept. By putting forward the concept of a Greater Toronto Region, the Government of Ontario has stimulated civil society to take action on a truly metropolitan scale. Important initiatives include formation of: (i) The Greater Toronto Marketing Alliance (GTMA), a partnership of GTA local governments, the governments of Ontario and Canada, and private firms, serves as a key point of contact for businesses exploring investment opportunities in the GTA. (ii) The Toronto Research Alliance (TRRA), a non-profit organization of the Region’s businesses, research institutions, and government partners oriented to moving the GTA’s economy up the value chain, especially through development of biotech/life sciences, information and communication technology, and advanced manufacturing and materials science. (iii) The Toronto City Summit Alliance (TCSA), established in 2002, is a coalition of civic leaders from the private, labor, voluntary and public sectors in the Toronto region, as well as a network of hundreds of volunteer. The TCSA is oriented to social issues in the GTA, such as poor economic integration of immigrants and affordable housing, although it also addresses other issues such as expanding knowledge-based industry and decaying infrastructure.

In 1953, the Municipality of Metropolitan Toronto was created to administer common services for the City of the Toronto, the townships of East York, Etobicoke, North York, Scarborough and York as well as seven villages and towns. At that time it encompassed virtually the whole built up metropolitan area. In January 1998, the metropolitan government was abolished and constituent units were amalgamated to form the new City of Toronto. It reduced the former two-tier system to a single tier, a seemingly positive development. However, by that time, the area covered by the new unicity encompassed only 40% of the population of the GTA. Although the amalgamation of the municipalities to form the City of Toronto has resulted in saving of $150 million (Cdn.), it is not popular with residents, who voted down the proposal in a referendum, but had the structure imposed on them by the Provincial Government anyway. Opponents

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10 In the 1960s, Toronto’s CBD dominated in terms of employment creation, with over 60% of commuters to the CBD using public transit, mainly the subway (TTC). Now, the CBD no longer dominates the Greater Toronto employment system, and less than 30% of commuters to the downtown use public transit.
argue that the new city, with a population of approximately 2.3 million, is too large to be close to the people.

Within the GTA, the economic and social disparity among municipalities is a challenge. The City of Toronto argues that the surrounding municipalities, known as the “905” belt, based on the telephone code serving the area, have “stolen” investment, but have few cultural institutions, and are bedroom communities disproportionately dependent on the City for jobs.

In sum, the Greater Toronto Region is an example of a failure to develop effective metropolitan wide governance. Residents of the City of Toronto, the core, complain of inaccessibility to government, while the dynamic outer region, which contains most of the Region’s population is not benefiting from being part of a cohesive extended urban region; its Municipalities and Regions continue to act in isolation from the core city. The growth of civil society organizations at the Greater Toronto Area scale is positive, but it is unclear whether they can coalesce into an effective region-wide organization, with the legitimacy and effectiveness of the New York Metropolitan Region’s Regional Plan Association.

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1.3 The European Experience

Given that cities in Europe are often located close together, along corridors, frequently trans-border systems, it is not surprising that urban region governance in Europe is often expressed at the megapolitan scale, and that national governments, and sometimes the supra-national European Union (EU) are involved in shaping these systems.

In continental Europe, metropolitan and megapolitan governance structures are often focused on physical issues, in particular creating razor sharp edges to urban build up, and protecting scarce green space. The Randstad, a horseshoe shaped urban belt with a green heart is an excellent example of European priorities, and accomplishments, in terms of megapolitan governance. (Box 5 provides details regarding the Randstad case.) The Netherland’s national government has taken the lead in shaping the Randstad, through its Ministry of Spatial Planning and Environment. This Ministry has zoned the heart of the Randstad green as well as conserving green space between urban nodes along the Randstad urban belt (Utrecht, Amsterdam, den Hague, Rotterdam), and in sensitive areas, e.g., coastal beaches and wetlands. Realistic levers have been deployed to make the plan a reality, e.g., compensating land owners, primarily farmers, (through local government) in the green heart, to keep their land non-urbanized, and supporting development of strong urban cores, especially around railroad stations in the major nodes.
The Netherland’s urban system is not dominated by one city, but rather is a horseshoe shaped chain of cities and transportation facilities (Amsterdam, den Haag, Rotterdam, Utrecht, Schiphol airport, and Rotterdam seaport [the world’s largest]), each playing specialized roles. The Randstad urban system is home to 7.2 million people (2005) or 46% of the Dutch population.

In 1990, the Netherlands Scientific Council for Government Policy recommended that the national Government establish a regional public organization, the Regio Randstad Bureau (RRB), composed of the provinces\(^\text{11}\) and the lead cities that constitute the Randstad to improve the quality of life and environment in the Region, as well as enhancing its competitiveness. The Region is located in a very geo-strategic location, it is where Northwest Europe meets the world’s seas. Accordingly, the Region’s cosmopolitan cities have played a major role in global trade and affairs over the centuries. However, none of the cities is large enough, acting alone, to effectively compete in Europe or on the global stage, hence the need to develop a more integrated, efficient urban system that benefits from the functional specialization of each of the Region’s nodes.

The national government, through its Ministry of Spatial Planning and the Environment (MSPE), took the lead in establishing the RRB. In addition to important sub-national government involvement (described above), other national Ministries are involved as well, such as the Ministries of Public Housing, Economic Affairs, and Transport and Water. The Regio Randstad Bureau, the secretariat, reports to a Board and Executive Committee (appointed by the Board). The Board is responsible for defining strategic thrusts and associated policies. Each of the public authorities is represented in working parties or advisory bodies. The Executive Committee assures cohesion of effort, and represents the Randstad in consultations with the national government.

The objectives for Randstad development can be grouped into two clusters: (i) improving the quality of physical development and environmental quality in the Region, and (ii) positioning the Randstad to be the key logistics Center of Europe, competing successfully against other European urban systems. In regard to the latter objective, the RRB works closely with the European Regions Research and Innovation Network (ERRIN) and The Network of European Regions and Areas (METREX). Of late, there has been an increasingly outward looking emphasis in RRB’s work, i.e., linking the Region closer to Europe, enhancing the Region’s dominance as the logistics center of Europe, and marketing the Region. For example, the RRB has an active office in Brussels, the seat of the EU. This shift in orientation is both a product of European integration and globalization (driven significantly by containerization, for which Rotterdam is the global hub), but also reflects the success that has been achieved to date in implementing the domestic agenda for the Randstad.

The Randstad is known world wide for its compact cities, largely within bicycle or tram distance of rail stations, the integration of rail systems and urban development, and its unique shape, particularly its green heart which enables residents of all its major cities to be in close contact with green space and water (all but Utrecht are coastal cities). Like most metropolitan authorities in middle-income and developed countries, the RRB is strengthening its major nodes, in this case the leading cities, through a city center (Randstad Centers) enhancement program. Approximately 440,000 housing units will be built within existing urban areas in the Randstad between 2010 and 2030, the RRB continues to promote compact growth, made attractive through high quality design. To this end, the national government plays a strong role in designating land for the construction of new communities, working in conjunction with the RRB. Given that the Randstad is a delta environment, much of the Region is land reclaimed from the sea, water resources planning is a priority, the RRB is implementing green and blue corridors throughout the Region to enable residents and visitors to navigate this multi-nodal city of over 7 million people as if they lived in a rural landscape.

\(^{11}\) The Randstad extends over the following Provinces: North Holland, South Holland, Utrecht and Flevoland.
European integration is of direct benefit to the Randstad. Its two main ports, Amsterdam Schiphol Airport, and the Port of Rotterdam, are increasingly linked, by rail, expressway, and water corridors, to urban centers in the Netherlands and Europe as a whole. Therefore, new space for the growth of these two ports is crucial, but a major issue. What will be the environmental impacts (noise, wetlands) of extending Schiphol into the sea? The RRB will need to listen to, and respond to diverse opinions on how the Region should be developed, in one of the most densely populated countries in the world.

The tools used by agencies in implementing the policies of the RRB are diverse, e.g., (i) financing of key facilities and city center regeneration, (ii) compensation to land owners for maintaining land in green or environmental service uses (through local authorities), (iii) building and land use controls, (iv) agricultural extension, e.g., regarding soil conservation, and (v) lobbying and promotion in regard to the Region’s economic function in the EU.

Although the RRB is centralized in orientation, the national government is attempting to decentralize responsibilities to other tiers of governments, changing its role to one of providing strategic guidance on spatial development, and establishing and enforcing minimum development standards. Regional and provincial government agencies, municipalities, civil society organizations, and interested citizens are encouraged to be involved in the development of RRB policies and initiatives.

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Related to the emphasis on land use and physical form has been the focus on deploying advanced transportation systems in metropolitan areas (and between them) in Europe to shape the morphology of European urban systems, thereby making them more livable and energy efficient.

Another distinctive features of the European case is the involvement of the supra-national European Union (EU) in support metropolitan governance. This is particularly true in economically depressed metropolitan areas such as Glasgow, which is enjoying a significant revival, but also involves support to the establishment of European wide organizations of Regional Cities (see Box 5).

Much European metropolitan and megapolitan planning is concerned with regenerating areas undergoing severe economic stress, e.g., the Ruhr region in Germany, as well as Glasgow. Economic development is increasingly near, or at the top, of the metropolitan governance agenda of transitional urban economies in Eastern Europe, e.g., Prague.

Overall, the European model is one that stresses the role of national governments, national agencies (such as railroads), and strong planning levers. Civil society organizations often tend to be organized around the interests of disadvantaged groups in metropolitan areas, rather than being driven by business or city building / management professional groups as in the United States.

To a significant extent London represents a deviation from the foregoing continental European model. Although the London Civic Forum (LCF) is focused on disadvantaged groups (similar to Toronto), the London Development Agency (LDA), to a significant degree, epitomizes the economic development orientation of the powerful, formal umbrella agency, the Greater London Authority (GLA). In this sense it is closer to the developmental orientation of metropolitan governance in the United States, but in the London case, government itself takes the lead in assessing and promoting the region’s economic development, rather than civil society groups. As indicated by Box 6, London is quite successful in promoting itself as the financial hub of the world (along with New York), and as a contender for the role of global business hub.

**Box 6**


London is the Europe’s top business location, competing with New York to be the world’s leading financial center. It attracts more international investment (FDI) than any other European urban region and generates gross value added of over 160 billion pounds a year. The Greater London Authority (GLA), a metropolitan authority, plays a significant role in the metropolitan region’s development. GLA was established in 1999 to be a strategic metropolitan-wide government for London and its 14 boroughs. GLA is made up of a directly elected Mayor and 25 assembly members. GLA’s main responsibilities include transport (Transport for London), policing (Metropolitan Police), fire and emergency planning (London Fire Services), and economic development through the London Development Agency (LDA); as well as planning, culture, environment, and health. In 2002/2003, the GLA controlled about 49.9 million pounds in expenditure. The London Civic Forum (LCF), a civil society organization, advises the assembly of GLA and other pan-London organizations, build partnerships among different institutions representing London’s diverse communities.

The London Development Agency, the high profile economic development arm of the GLA is recognized as a high performance agency, both in the United Kingdom, and in Europe as a whole. Its success in positioning London as a premier global location for high-end services, particularly financial, is well known. Its current goal is to make London the World’s financial hub, and maintain its status as one of the World’s greatest cities. With an annual budget of 300 million pounds, the LDA promotes business, by working in close partnership with industry, the public, and voluntary organizations and local governments (the boroughs) to support and promote economic development and regeneration of troubled industrial districts in Greater London. The LDA’s Board is appointed by the Mayor. It is responsible for preparing the region’s economic development strategies such as the current one on “Sustaining Success”, released in January 2005. Strategic documents are distributed extensively through partners’ networks, including the London Civic and the Black Londoners Forums. To have a multi-cultural and multi-national impact, summaries of documents are translated into a variety of languages such as Turkish, Chinese, Urdu and Arabic.

The LDC also manages a variety of national government funds for local regeneration, skills development, inward investment, and regional innovation. The LDA carried out regeneration projects, and owns land and property, in areas such as the Royal Docks, one of Europe’s largest regeneration sites, and at Woolwich Arsenal. Regeneration projects at Silvertown Docks and Wembley are noted for successful partnerships with private sector investors and meaningful consultation with local people. Recently, the LDA has played an integral role in planning to maximize economic benefits from the Olympic Games for London. Especially important in LDA planning is using the Olympic Games as a mechanism to enhance London’s profile, and performance as a global business center in the post 2012 period. The LDA faces considerable challenges. Sustaining productivity growth will be difficult, and barriers to employment by disadvantaged groups need to be reduced. Therefore, the LDA is increasingly focusing on a range of human-centered innovative projects through training, small business support, and town center regeneration, including the Jumpstart program, designed to help Black and minority ethnic businesses.
1.4 The East Asian Experience

It is logical to assume that East Asian metropolitan governance models would be of considerable value to China. This is true in some areas, e.g., fiscal planning; but not in all. For example, Chinese leaders have expressed interest in civil society based metropolitan governance organizations, rare in East Asia.

Tokyo is of considerable interest because it is the largest metropolitan region in the world (by population), and because it is planned and managed based on a *unicity* model, with the Tokyo Metropolitan Government’s area covering the vast majority of Tokyo’s built up area. However, some of the issues that Tokyo is facing, in particular demographic decrease and aging, which will translate into stagnant fiscal revenues, will not impact China until the second half of the 21st century, i.e., about 50 years later than in Japan. As noted in Box 7, Tokyo will experience significant fiscal stresses over the next three decades. China should take note of this situation, and countermeasures being taken, because China’s metropolitan urban fiscal systems are essentially non-sustainable as currently structured (see Chapter 2). Although the Tokyo Metropolitan Government (TMG) faces significant challenges over the next decades, many of them exacerbated by the failure to exercise adequate foresight in terms of threats, it has a solid record in terms of effectively shaping urban form (aligning mass rail systems and urban land use), reduction of air pollution, etc. Reforms underway include moving social services closer to the people through decentralization, and more disciplined budgeting processes that will enable resources to be shifted to emerging priorities such as social services required by an aging population.

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**Box 7**

**Tokyo Metropolitan Government: Reform Under Demographic Stagnation and Fiscal Burdens in a Unicity**

The Tokyo Metropolitan Government (TMG) manages the Tokyo Metropolitan region, capital of the world’s second-largest national economy, and the world’s largest contiguous urban agglomeration, with a population (2005) in excess of 35 million people. The TMG was established in 1991 as a prefecture level public entity encompassing 23 special wards that constitute central Tokyo, 26 cities (*shi*), with populations in excess of 300,000, and 13 smaller entities, towns (*cho*) and villages (*son*).

The TMG is led by a directly elected governor responsible to the legislative body, the Tokyo Metropolitan Assembly (127 members). Reporting to the Governor’s office are 17 Bureaus and Offices responsible for line functions, e.g., city planning and finance, as well as six Executive Commissions that essentially act as watchdog or mediating agencies, e.g., the Public Safety Commission, and Expropriation Commission.

The TMG’s main responsibilities include service provision such as water supply, sewerage, fire fighting, plus collection of taxes and levies. To reduce spatial disparities in financial resources, the TMG allocates national shared taxes among the wards to ensure that they are all able to deliver core services at a uniform level.

TMG’s main challenge is a growing financial deficit that will be worsened by Japan’s declining population. Japan, according to conservative UN populations, will lose 8 million people between 2005 and
2030. Population will stagnate in Tokyo over the next decades, as acknowledged by the TMG. Aging, creating higher demographic dependence (a smaller labor force), will compound the economic, and especially fiscal (lower tax revenues, higher social expenditure), implications of demographic stagnation. By the end of fiscal 2002, TMG had seven trillion yen in outstanding metropolitan bonds and had run a deficit for five consecutive years. Since the TMG raises about 66% of the total metropolitan revenue (national treasury disbursements account for only 7.9%), and the national economy will be impacted even more severely by demographic decline, it is largely the TMG itself that must address this pending fiscal crisis.

A recent study by the TMG Bureau of Finance, released in 2005, clearly outlines the dramatic implications of a status quo metropolitan finance simulation. Assuming, optimistically, no population growth, it is estimated that revenues will only grow by 0.2 trillion yen, necessitating a 0.7 trillion reduction in expenditures over the status quo expenditure forecast. Since population growth in the TMG is unlikely, significant changes in the mix and extent of expenditures will need to occur, especially given the need to address problems of an aging population, outlined in the TMG’s, *Tokyo Vision for a Health and Welfare City*. The Bureau of Finance is acting, establishing indicators to encourage fiscal discipline, and initiating budgeting processes that focus on drastically changing medium and long-term perspectives to provide context to annual budgeting processes.

Other key components of fiscal reform are to: (i) address the three critical areas of transparency, reliability and efficiency, and (ii) decentralize functions, especially those that touch closely on people’s live, to the special wards, e.g., jurisdiction over waste management. It is expected that decentralization will lead to more disciplined and targeted expenditure.

The Tokyo Metropolitan Region is governed by the largest metropolitan government in the world, unique in that it is encompasses most of the built-up area, i.e., it is a unicity. It has performed well in many areas including city planning, environmental enhancement, and disaster planning (for earthquakes). On the other hand, the TMR is a perfect example of how apparently successful routine metropolitan planning can be totally disrupted by strong external drivers, in this case a dramatic decline in fertility, combined with national policies that restrain immigration. The case of the TMR indicates that metropolitan governance must always be alert to the big picture, and rapid changes in context.

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As indicated by Box 8, Seoul’s metropolitan governance system is structured considerably differently from Tokyo’s. Firstly, the Seoul Metropolitan Government (SMG) governs less than half the population of the extended urban region, known as the Seoul Metropolitan Region (SMR). The national government, through the Prime Minister’s office, takes the lead in co-ordination of planning and service delivery that involves cooperation between the SMG and the surrounding local governments that constitute the SMR. Nevertheless, the system works well. In the SMG, a shift toward qualitatively oriented growth management benefits from pro-active public corporations. Similarly, cooperation between the SMG and the SMR benefits from establishment of Committees and Associations, often catalyzed by the national government.
Box 8

Seoul Metropolitan Government: Leadership from the Metropolitan Core

The Seoul Metropolitan Area (SMA) constitutes the core of the Seoul Metropolitan Region (SMR), the latter a megapolitan area containing 48% of South Korea’s population (23 million). The SMR typifies extended urban regions in East Asia, it is nineteen times as large in area as the SMA, with an area of 11,773 square kilometers. Over time, an increasing proportion of the SMR’s population lives outside the SMA; in part because SMA’s area has been extended only slightly between 1963 and 2004 (from 595 to 605 sq. kms.), combined with the fact that the population of the SMA peaked in 1992 at 11 million, declining to 10.3 million by 2004 through suburbanization and peri-urbanization processes.

Within the SMA, the city’s efficiency has been increased substantially through the establishment of public corporations, e.g., the Seoul Metro Corporation and the Seoul Metropolitan Rapid Transit Corporation, which are responsible for 9 subway lines, the Seoul Housing Corporation responsible for own income housing, and the Seoul Metropolitan Facilities Management Corporation, responsible for car-only roads and parking facilities. The SMG is now focused on quality of life, given that efficiency objectives have largely been achieved. This shift is described as a shift from a growth oriented (quantitative) model to a growth management (quality) model. The latter includes restoration of historic, cultural, and natural environments. Related to the latter, Seoul has attracted global attention by restoring Cheonggyechon Stream which runs through the heart of the city. This has involved removal of an expressway (that covered it) – a cost deemed worth it, given the shifting values of SMA residents as they grow richer.

Megapolitan governance is based on three tiers: the SMR, SMG and the Districts. Typical of extended urban regions such as Bangkok and Toronto, the SMR has limited powers, especially in terms of service delivery. The national government takes the lead in economic, demographic, and spatial planning for the SMR, through the Capital Region Management Committee, chaired by the Prime Minister. At present, the second Capital Region Management Plan 1997-2011, based on the Capital Region Management Act of 1982, establishes basic parameters for the region, e.g., land use and urban form (promoting a multi-nuclei structure), industrial distribution, and national government capital investments. The twenty-five Autonomous Districts undertake their own locally derived projects under a certain scale (e.g., roads less than 20 meters wide, sewage pipes under 900 mm), plus those commissioned by the SMG. The mayor of each District is also elected.

Cooperation between the SMG and surrounding jurisdictions has resulted in positive outcomes, e.g., the establishment of the Capital Region Transport Association, which co-ordinates 397 bus routes carrying 8.8 million riders daily in Seoul, Gyonggi and Inchon. Of particular note is the initiative to improve water quality in the Han River, which flows through Seoul. The Committee for the Management of the Han River Water Quality allocates zero costs to the two furthest upstream jurisdictions (Gangwon, Chungchung), whereas downstream communities share the vast majority of costs, aided by a matching grant from the Korea Water Resources Corporation. In effect, the downstream communities provide upstream jurisdictions with a subsidy for performing environmental services.

From 1998 to 2001, SMG implemented a series of reforms such as the citizen evaluation system, on-line procedures to handle civil service applications (the open system), and performance based budgeting. The reforms were implemented immediately after the East Asian financial crisis of 1997, when people were receptive to change. The citizen evaluation system (requiring quick internet response from the responsible official) and anti-corruption index were recognized as “the most valuable reform” by the Presidential Commission on Governmental Innovation in Korea.

Metropolitan Seoul indicates that even when the metropolitan area cannot be expanded to keep up with peripheral population expansion and movement of population to suburban and peri-urban areas, coordination of development can be successful. In the Seoul case this coordination is catalyzed by the national government.
1.5 Overall Learning: Relevance to China

What key lessons can China derive from the international experience to improve the effectiveness of its metropolitan and megapolitan governance systems?

(i) In terms of metropolitan governance structures, it is important to stay ahead of expansion of the built up area. For example, Toronto, Seoul, and Bangkok, all have strong and relatively effective metropolitan governments, but in every case at least 45% of the extended urban population live outside the boundaries of the metropolitan government. Expanding metropolitan areas is not easy. Vested interests in jurisdictions that will be amalgamated, or have changed roles within a larger institutional construct, are likely to oppose change, but it is necessary because the majority of physical and demographic growth occurs on the periphery of metropolitan areas, often outside the purview of existing metropolitan governments. In China, the implication is slightly different. Since Municipalities generally over bound metropolitan areas, the issue is one of integrating existing jurisdictions into the Municipal Governance system earlier rather than later. This means that Counties should be upgraded to Urban Districts, which are more directly integrated into the Municipal Government system, ahead of their large-scale urbanization.

(ii) Metropolitan systems are not only large in scale, but are usually much more linked to the outside world than smaller cities. This is a net plus, but also makes them more vulnerable to changes in global economic systems. Equally important, big swings in domestic drivers are writ large in metropolitan areas, as the case of Tokyo illustrates. Thus good metropolitan governance cannot consist solely of routine administration of internal urban systems, e.g., providing sewerage. Rather, metropolitan governance systems have an obligation to constantly monitor and anticipate the larger context in which they operate, identifying and responding to major shifts in global and national economic, socio-demographic, technology, and political drivers. If not, there is a high probability that the city will be blind-sided by an event or driver that could have been anticipated, but was not. Recent cases of metropolitan areas being blind-sided include New Orleans (flooding), Sao Paulo (gang led civil unrest), Tokyo (demographic decline and aging), Jakarta (terrorism), French urban areas (ethnic conflict based civil unrest), etc.

Experience also indicates that development of civil society in metropolitan regions, although it takes time to build, improves resilience. For example, Bangkok coped relatively well after the 1997 East Asian financial crisis because of micro adaptation throughout the system, built on a strong civil society.13

(iii) It is important that metropolitan governance systems allocate functional mandates effectively. Based on the international experiences presented, this generally means decentralizing functions that are best delivered close to the people, e.g., social support, basic education and training, and primary health care; while delivering strategic planning, regional-scale trunk infrastructure, economic development planning, and marketing at the metropolitan scale. Changes in the vertical allocation of mandates require reform of fiscal structures, either through intra-metropolitan (or national) transfers,

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and/or through re-allocation of revenue generation powers. For example, many social services are labor intensive and expensive, meaning decentralization of such services within metropolitan regions places an increased fiscal burden on Districts, or equivalent lower level jurisdictions.

(iv) Metropolitan governance faces a dilemma. Large scale finance is needed for development of infrastructure systems ahead of settlement, to structure urban systems through use of infrastructure. Infrastructure led development is especially important on the periphery, to avoid the high costs of retro-fitting the urban fabric. Large scale infrastructure investment should not be overlooked in built-up areas, e.g., heavy rail systems can literally restructure existing cities, generating high density nodes, etc. Yet, at the same time, large-scale borrowing, or de facto off-budget financing through issuance of concessions, involvement in joint ventures, etc., can create problems, e.g., in Osaka. Good practice, well-documented by the World Bank and others, needs to be adopted, e.g., assuring future revenue streams meet finance costs, borrowing in the same currency as the revenue stream, assuring adequate future demand for the facility in question, etc.

(v) International experience indicates that very substantial intra-metropolitan fiscal disparities can develop. This is because different areas of a metropolitan area have widely varying economic bases, and secondly, residential populations tend to be clustered by socio-economic class. The problem is exacerbated if richer communities split off to protect their tax bases, as in Los Angeles, with particularly negative implications in terms of education. Another cause of fiscal disparities is that some jurisdictions provide environmental or recreational services, land uses that often generate low fiscal yields. Even in Minneapolis – St. Paul, a metropolis with a progressive fiscal transfer system, substantial fiscal disparities exist.

Given the need for economic specialization within metropolitan areas, and the fact that the whole metropolis benefits from high quality local services, e.g., education, and region-serving environmental and recreational services, horizontal fiscal transfers within metropolitan areas often make sense. The need for transfers may also be generated by the need for vertical re-distribution of fiscal resources if mandates are changed, as noted above (iii).

The danger is that fiscal transfers have the potential to reduce local fiscal and service delivery performance if incentives to generate local revenues are reduced too much, as is sometimes the case, e.g., Manila and Jakarta. Or, often in tandem, poorly designed fiscal transfers may reduce the incentive to spend prudently.

In sum, international experience indicates that intra-metropolitan fiscal transfers can be useful, but need to be designed carefully to minimize creation of disincentives and environments that generate moral hazard.

(vi) International experience indicates clearly that one size does not fit all. Even within nation states, e.g., Canada or the United States, there is wide variance in the structure and processes of metropolitan governance. This is positive and has relevance for China. For example, in West China, a more top-down integrated metropolitan development model may be more feasible than in coastal areas where other mechanisms may be more effective, e.g., a federation of local governments approach, supported by matching grants to create incentives for co-operation among horizontal units.

Often metropolitan governance systems are a reflection of national or regional culture. For example, in Canada there is an emphasis in metropolitan governance in delivery of social services and meeting the needs of the large numbers of migrants, who gravitate to metropolitan areas. In the Netherlands, the emphasis is on managing the densely populated environment; in Chicago and London, aspiring world cities, considerable weight is place on economic performance.

(vii) A major lesson from international experience, particularly from the United States, is that civil society can play a very important role in metropolitan governance. As indicated, metropolitan
strategies, promotion, and urban redevelopment, is driven by civil society organizations in major metropolises such as New York and Chicago. The fact that these successful metropolitan organizations are led by business or professional groups (e.g. architects, city planners) has implications for China. Approaches such as those pioneered in New York and Chicago could provide important clues in implementing first stage civil society involvement in metropolitan governance in China.

In metropolitan areas such as London, Toronto, and Chicago, prime destinations for international migrants, metropolitan-wide civil society groups play an import role in metropolitan governance by representing disadvantaged groups, e.g., migrants, disadvantaged ethnic groups, the less skilled. Because such groups often have limited voice in traditional representational democracy, by involving them in civic organizations at the metropolitan scale, the overall efficiency of the metropolitan system can be improved, e.g., through a more skilled labor force, lower crime rates, less social conflict, etc. Over time, China may want to consider incorporating such civil society mechanisms into the metropolitan governance system.

(viii) An important lesson from international experience is that periods of crisis often provide opportunity to reform or restructure metropolitan governance. Timing is very important in changing metropolitan governance systems. The case of Seoul indicates this principle clearly. Similarly, New York, facilitated by the RPA, has followed up on crises, e.g., the 9/11 terrorist attack, and before that New York’s bankruptcy, to undertake large-scale initiatives. Metropolitan governments often perform better under stress, e.g., Toronto during the SARS crisis, the Bangkok Metropolitan Administration that trained over 100,000 people, planted over 300,000 trees, and rehabilitated hundreds of schools in the post 1997 financial crisis period.14

(ix) Virtually all metropolitan governance systems are concerned with spatial structure, which can only be shaped effectively at the metropolitan scale. In every case studied, strategies exist to create several strong urban centers (to complement the Central Business Districts) within the metropolitan fabric. As petroleum becomes more expensive, and there is more concern over long commutes (to reduce air pollution and human time costs), this issue area will become even more important in metropolitan governance.

14 Webster (2005)
Chapter 2 Governing China’s Metropolitan Regions: Status, Issues, and Policy Implications

2.1 Introduction

This Chapter addresses impediments to more effective metropolitan and megapolitan governance in China, and suggests potentially feasible initiatives for change. Suggested initiatives require further assessment. The initiatives proposed are those that would likely yield the highest benefits in terms of improved metropolitan performance (economic output, environmental status, energy efficiency, household well-being and quality of life).

Improved metropolitan governance in China would yield significant economic, environmental and social outcomes for two reasons: (i) there is considerable potential for obvious quick gains, e.g., more rational routing of network infrastructure such as roads and sewer lines within metropolitan regions, and (ii) Metropolitan regions account for an increasing percentage of China’s economic output, population, and land area, thereby multiplying benefits from more effective governance.

Extended Urbanization: Metropolitan and Megapolitan Regions

In this Chapter, the emphasis is on Metropolitan Regions, which in China generally are located within one Municipality, i.e., the built up metropolitan area is almost always smaller in size than the Municipality. Such metropolitan systems are composed of Urban Districts (which constitute the City Proper), County Level Cities, and parts of Rural Counties. We define metropolitan regions as Municipalities containing relatively contiguous urban populations in excess of 1.5 million people.

However, it is recognized that a larger scale of extended urban regions is emerging in China. These urban systems contain more than one metropolitan Region. Leading examples include the Pearl River Delta (PRD), the Lower Yangtze Delta (LYD), which is 100,000 square kilometers in area, and includes parts of Jiangsu (to Nanjing) and Zhejiang (to Ningbo) Provinces; and the Beijing-Tianjing Region (BTR)16, which is 30,000 square kilometers in area, and covers parts of three Provinces (including parts of Hebei Province). (See Map 1.) We term these regions, Megapolitan. In addition, nine other megapolitan regions exist, or are rapidly emerging in China, see Map 2.

We define Megapolitan Regions as extended urban systems that contain more than one metropolitan Region that are linked economically, i.e., in terms of flows of people, inter-industry linkages, recreational patterns, etc. Although Chinese authorities have not yet officially put forward criteria defining megapolitan Regions, their existence is de facto recognized, e.g., in the analysis of extended urban systems in the Eleventh National Development Plan. As a starting point, we use criteria being developed in the United States to define Chinese megapolitan Regions, namely a population larger than 10 million people, and the existence of at least two metropolitan Regions, linked through significant economic or physical flows. (Robert Lang outlines detailed criteria in the case of the United States.) Map 2 was constructed using these criteria. Invariably, in China, these megapolitan Regions encompass more than one Municipality, Province and/or Special Administrative Region (SAR), the latter in the case of the Pearl River Delta.

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15 This situation is typical of transitional economies in Communist states, e.g., Vietnam.
16 Not to be confused with the Bohai Bay region, which is much larger, incorporating the Beijing – Tianjin Megapolitan Region as a relatively small percentage of its total area.
Map 1: Conceptual Plan: Beijing – Tianjin – Binhai New Area

Map 2: Existing and Emerging Megapolitan Regions in China
The average Municipality in China is large, about 10,000 square kilometers, or about four times as large as the average metropolitan municipality worldwide. Thus, as noted, over bounding of urban systems is the rule. For example, metropolitan Guangzhou, with a population of 13.2 million (2000), had a built up area of only 979 square kilometers and a total urban area (defined by drawing a perimeter around the outer edges of contiguous development plus urbanized/linked patches) of about 2,500 square kilometers. (See Map 3.) Although a significant net benefit, because it makes coordinated planning and delivery of services to the whole built up metropolitan area feasible, over bounding does have negative impacts. Over bounding results in the Municipal Government (and its constituent jurisdictions) having fiscal responsibility for rural and emerging peri-urban areas, that are expensive to service, especially if rural residents demand equivalent to urban levels of service. However, a countervailing benefit is there are fewer “not in my backyard” (NIMBY) disputes within Chinese Municipalities, e.g., siting of landfills, which can be virtually impossible in under-bounded systems, such as Bangkok or Manila, where nearby jurisdictions do not want to take on “nuisance” land uses generated by jurisdictions within the official metropolitan area. The relative lack of NIMBY disputes in China also reflects state ownership of land, and relatively weak civil society, discussed above. With the development of civil society, NIMBY type disputes may increase.

Map 3: Guangzhou Metropolitan Area


The Economic and Demographic Significance of Metropolitanization

The current and future importance of metropolitan and megapolitan regions in China is indisputable. In particular, the share of national economic output accounted for by megapolitan Regions is forecast to grow rapidly. For example, by 2020, the PRD, LYD, and BTR megapolitan Regions will account for 65% of Chinese economic output. Although the population share of these megapolitan Regions is,
and will be, smaller than their share of economic output, they will still account for 18% of China’s population. In 2020, the population of these three megapolitan regions will be BTR 85 million, YRD 100 million, and PRD 80 million.\textsuperscript{18}

China in 2004 contained 283 Prefecture (Municipal) cities, the vast majority of which contained over one million people in their extended urban regions, i.e., they are current or emerging metropolitan systems. As indicated by Table 1, these 283 Municipalities covered 49% of China’s land area but contained 91% of the population. Urban Districts in these 283 Municipalities contained 6.1% of China’s land area, 27% of the population, and accounted for 67% of the GDP. Map 4 describes the spatial cover of these Urban Municipalities – essentially eastern China is urbanized, while the West is not, an expected outcome given the overall geographic distribution of the Chinese population. Rapid population growth in most metropolitan Regions, and all megapolitan Regions, will continue to be driven by net in-migration plus envelopment of surrounding rural and town settlements by outward spread of these urban systems. Net urban in-migration is highly concentrated in larger urban systems.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|}
\hline
Category & Percent of total population & Percent of total Land Area & Percent of Total GDP \\
\hline
Prefecture Level Cities & 90.6 & 48.9 & \\
Urban Districts & 27.0 & 6.1 & 67.0 \\
\hline
\end{tabular}
\caption{The Spatial Distribution of Prefecture Level Cities (283) in China in 2004}
\end{table}

Note: The above table was prepared from two data sets that are not aligned: China’s Statistical Yearbook 2005, and China’s Urban Statistical Yearbook 2005.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{map4}
\caption{Spatial Cover of Prefecture-level Cities (283) in China in 2004}
\end{figure}

\textsuperscript{18} Population forecasts are from the National Construction Commission; economic forecasts are from the China City Development Report (2002-2003).
The increased economic and strategic importance of metropolitan regions in China is being driven by accelerated integration of the national economy, e.g., emergence of nation-serving corporations such as Haier (consumer appliances) and Youngor (retail clothing), national financial systems; dynamics which have been significantly facilitated by dramatic improvements in the national expressway system (see Map 5), and communications and aviation systems. High Speed Rail (HSR) networks, soon to be developed between major megapolitan Regions, e.g., Shanghai – Beijing and Shanghai – Hangzhou, will reinforce integration of the national economy, favoring the largest urban systems in China.

Map 5: Expressway Network in China: 2020

Spatial Implications of Metropolitanization

This rapid increase in the importance of metropolitan and megapolitan Regions will obviously translate into (i) increases in built up area, and (ii) extension of the perimeters of urbanized areas. The latter is more difficult to forecast than built up area per se, given that urban systems expand in a patchwork way, providing opportunity for later in-filling that in the case of large metropolitan areas can literally absorb millions of people. For example, Chengdu has experienced considerable infilling, limiting expansion of its perimeter over the last decade, as has Los Angeles in the United States, which is densifying at a rapid rate (it is physically bounded by mountains and the Pacific Ocean). Guangzhou, China, a metropolitan region within the PRD Megapolitan region, illustrates these dynamics, based on recent analysis by Angel, et al.19 The built up area of the Guangzhou metropolitan system more than doubled between 1990 and 2000 (from 452 square kilometers to 979 square kilometers, 8.1% per year, faster than the population growth rate of 5.5%) yet the outer perimeter of the system changed little, resulting in an increase in the Contiguity Index (from 0.34 to 0.45) and a reduction in the Buildable Perimeter Indicator (from 0.87 to 0.86). At any rate, there will be expansion in the physical size of metropolitan Regions in China, albeit with considerable variance across urban systems, which will increase the number of local administrative jurisdictions that are

part of metropolitan and megapolitan regions, further complicating metropolitan governance, but at the same time, increasing pressure for improved metropolitan governance.

The Challenge

Given the dynamism and increased importance of Chinese metropolitanization, creative thinking is needed to identify new governance measures to address stresses and opportunities associated with rapid growth. Our analysis indicates that the overall institutional and spatial structure of metropolitan government in China requires little change. For example, as noted above, Municipalities tend to be of appropriate geographic size. However, what is needed is a reconsideration of powers assigned to different levels of urban government (Municipality, Urban Districts, Counties, Townships, Provinces, etc.), and even more important, a reexamination of incentive structures facing major public actors operating at a metropolitan scale. For example, local jurisdictions need incentives to ensure that road and waste water systems are rational to serve the metropolitan region, and their own jurisdiction, at lowest cost.

At the megapolitan scale, a different set of challenges exists. Megapolitan regions are recognized by national planners, e.g., the National Development Reform Commission (NDRC), and in the Eleventh National Development Plan, but do not officially exist, despite the fact that Municipalities and Provinces are now co-operating in producing Megapolitan Region Plans, e.g., the BTR plan, and holding regular coordination meetings, e.g., in the LYD. The challenge is to define and implement an appropriate level of formal and informal institutional organization and processes to guide development of China’s megapolitan Regions.

2.2 Key Issues Assessment

2.2.1 One Stakeholder Model of Metropolitan Governance

There is limited involvement of civil society in metropolitan governance in China. Currently, governance is essentially based on a one stakeholder model, that is the vertical, and largely hierarchical, structure of local government, described above, determines public sector resource allocation and initiatives. However, in the more economically developed regions of China, the private sector, through local branches of trade and industry organizations is becoming more involved in metropolitan governance, especially on issues of high concern to these stakeholders, e.g., metropolitan transportation systems and facilities (such as ports). In some cases, multi-national corporations, usually based in Economic and Technological Development Zones (ETDZs) and High Technology and Science Zones, and/or large domestic corporations (such as in Qingdao) play an increasing role.

Given the Chinese situation, and global experience, it appears that business or urban development professionals led civil society groups would initially have the greatest credibility and value in terms moving toward a multiple stakeholder model of metropolitan governance in China.

2.2.2 Vertical Realignment of Local Government Powers

The powers of local governments in China (Municipalities, Urban Districts, Counties, Townships, etc.) are based on the Chinese Constitution. However, local functional mandates are not defined in the Constitution, functional mandates are ambiguous, accordingly the same function is often undertaken by more than one level of government. Furthermore, the actual functions of different levels of local government among metropolitan areas vary widely. This is attributable to wide differences in political networks, charisma / guanxi of local officials, and differences in fiscal resources (discussed above) among local governments.

In general, Municipalities in the Interior, and especially in the West, exercise more power relative to Counties, Urban Districts, etc., making metropolitan-wide planning and management more feasible.
away from the coast. This is largely the result of the private sector, and urban economic development as a whole, taking off at a later date in the West, enabling Municipal Governments to play a stronger role. On the other hand, especially in the coastal metropolitan areas, and to a lesser extent, Beijing Municipality, rapid County (and even Township) based private sector led economic development (including FDI driven development) gave lower level urban governments more fiscal power, putting less onus on Municipal Governments to deliver metropolitan wide services. This occurs despite the fact that plans (economic, physical) need to be approved by the People’s Congress of the jurisdiction in which they are to be enacted, plus the next level up, e.g., an Urban District’s plans need to be approved by the Municipality. (Final approval, by the national State Council [a quasi legal body] is usually a rubber stamp procedure.)

Our assessment is that Municipalities need more power relative to Counties and Urban Districts over: (i) overall strategic direction (SWOT Analysis, Vision formulation and, Strategic Planning), (ii) economic development planning, (iii) structural physical planning (e.g., functions of CBDs and suburban Centers, major green spaces, major corridors), (iv) routing/location of key facilities and trunk infrastructure (such as expressways and arterial road systems, rapid transit systems, trunk water supply and sewerage lines), and (v) promotion and marketing. All of these functions, as well documented in the urban planning / management literature, benefit from a combination of: (i) economies of scale and agglomeration, (ii) rational network design, and (iii) positive synergies, e.g., between economic development and infrastructure investment and between land use and transportation systems; implying planning and often, implementation, should occur at the metropolitan scale. Analysis of Chinese metropolitan systems reveals considerable inefficiency resulting from too little Municipal authority in the foregoing areas. For example, in Xiamen Municipality, suburban centers (County Level Cities) on the mainland duplicate functions among themselves, undermining metropolitan economic efficiency by creating over capacity in functions such as industrial zones, extremely expensive infrastructure. Harbin, on the north side of the river, appears to be investing in excessive urban infrastructure, given relatively slow demographic growth in the metropolitan Region. Wastewater trunk lines, as in Shanghai, may take circuitous routes, avoiding the nearest suitable location to treat or discharge treated waste water, to avoid crossing boundaries of (rival) Districts.

On the other hand, a strong case can be made that Urban Districts and Counties should be given more powers to deliver social services that operate best when in close contact with users, e.g., basic education, local policing. (Municipal, Provincial, and National level [as appropriate] agencies would need to ensure that these services are being delivered to standard by lower level urban governments, through monitoring and enforcement of standards.) Social services noted do not benefit from economies of scale (beyond fairly low thresholds) and are not based on hard (physical) networks. Because social service delivery requires substantial fiscal resources, given the labor intensiveness of these services, strengthening of the social delivery function at the local level would require appropriate increases in fiscal resources, at the County and Urban District scales, either through increased transfers or enhanced revenue generation powers.

At present, allocation of functions is often sub-optimal, e.g., low level governments such as Townships build industrial parks for economic clusters that may have metropolitan wide implications, e.g., in terms of efficiency of traffic flows and labor markets, while Municipal Governments deliver social services that could be delivered on a more locally customized basis by lower level governments that are closer to the people. Such a shift in functions would not necessarily mean that any level of Government gains considerable influence. Although Urban Districts and Counties might gain fiscal power, the Municipality would gain strategic influence, increased powers to enforce standards, etc.

It is our assessment that the Township and Urban Block levels of governance should be weaker at the metropolitan level (i.e., in terms of investment, planning), except in one regard – as a mechanism and conduit for citizen input. Townships, Counties, and Urban Districts, are closer to the people than are Municipal Governments, which serve very large areas, and millions of citizens. Citizen and civil
society input from the lowest levels of metropolitan jurisdictions, e.g., concerns about specific local issues such as siting of firms and environmental facilities, neighborhood transportation flows, would come from individuals plus local groups such as schools, interest groups (environment, women, labor), universities, private enterprises and enterprise associations, etc. This input could be digested by the existence of metropolitan wide civil groups (such as the RPA in the United States), plus the Municipal Government itself.

A problem in the current system is that when Counties become Urban Districts they generally lose fiscal power – Counties are more autonomous within Municipalities than Urban Districts, especially in budgetary and fiscal matters. Thus there is a built in incentive for Counties (usually County Level Cities), even when enveloped by metropolitan expansion, to resist amalgamation. For example, this was the case in the ultimately successful amalgamation that occurred in Hangzhou Municipality (although concessions were made in terms of the fiscal autonomy of amalgamated Counties in the Hangzhou case). However, in a minority of cases, Counties may desire to become an Urban District, as has been the case in the upgrading of some Counties in Beijing and Shanghai, because of more direct access to the revenue stream of rich Municipalities, despite losing considerable autonomy.

2.2.3 Fiscal System Complexity

Official fiscal systems / budgets often represent half or less of public funds being processed by Municipal and County Governments. Although official budgets are often quite transparent, many urban jurisdictions publish them in the local newspaper; off-budget activity is usually obscure. This situation, two fiscal systems, and lack of transparency in off-budget activities, makes rational programming-budgeting, including capital budgeting, more difficult at the metropolitan scale. For example, large numbers of concession-type agreements, e.g., toll roads, are awarded on an ill-advised ad hoc basis, making regional travel expensive, and inefficient, due to incrementally designed networks. As has been well documented, off-budget activity is fueled significantly by revenue from land lease sales, concessions, etc. Reforming Municipal scale fiscals systems would be a major task. However, the existence of accurate information regarding the fiscal status of metropolitan Regions would make metropolitan governance more effective. For example, accurate information is needed to effectively realign functions among levels of local government.

Notwithstanding the above, it is clear that current fiscal incentives distort metropolitan performance, particularly in terms of the intra-metropolitan spatial economy. Sub-Municipal units chase manufacturing because this is the route to maximizing local revenue from shared taxes (a nationally administered system). Because property taxes do not exist, and local governments receive a very small share of personal income taxes, revenue from corporate taxation and taxes on differing types of manufacturing output (excise taxes) become proportionately very important. The importance of these shared revenue streams from manufacturing is illustrated by the willingness to lease land at very low rates to manufacturing firms to generate ongoing revenue. The result is that manufacturing is scattered among a large number of ETDZs, High Tech Zones, County and Township industrial parks, etc. Accordingly, in a typical metropolitan Region, more land is allocated to manufacturing than is justifiable. This can have costs, e.g.: (i) Negative externalities on surrounding neighborhoods if the activity is not clean, (ii) Higher costs of wastewater treatment from scattered manufacturing facilities, (iii) Loss of innovation and learning resulting from the geographic separation of firms in the same economic cluster (as is the case of the aviation cluster in Chengdu and the pharmaceutical cluster in Harbin), and (iv) higher time costs as commuters move through ill-located manufacturing complexes when commuting. (v) Another negative impact is that local government jurisdictions that fail to attract manufacturing often do not have sufficient fiscal resources to implement otherwise desirable programming.

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This distortion also operates at the megapolitan scale, an issue that has raised considerable attention in the Chinese press of late, in the case of the LYD. There, Shanghai’s outlying Urban Districts do not want to give up their manufacturing bases for the fiscal reasons described above, whereas second-tier cities in the Megapolitan Region, e.g., Ningbo or Suzhou, would be more appropriate locations for manufacturing in terms of national competitiveness (given lower costs, less congestion), spatially spreading employment (and hence migrant inflows), etc.

In general, there is a strong bias toward property development, especially by Municipalities, because of the land leasing revenue that results, albeit a one-off effect (once land is sold, it enters the secondary market). This bias results in lower densities and more spread piecemeal development in metropolitan regions than would otherwise be the case, raising costs for transportation, civil, and environmental infrastructure, increasing energy demand, and imposing human time costs, e.g., long commutes. Because land lease revenues to local governments are one-off, within the next few decades most Municipalities will need to implement alternative local revenue generation systems, a property tax would be most efficient. However, it will be difficult for any one Municipality to take initial action in this regard because of competitiveness concerns. The national government will need to take the lead, mandating urban property taxes nationwide.

Fiscal inequities among local government units are cumulative over time, affecting not only physical development, but the ability of local governments to pay pensions, deliver social services, invest in catalytic infrastructure and facilities, which reinforces the differential attractiveness of sub-Municipal jurisdictions for investment, setting off a vicious circle of increased spatial inequity within the metropolitan region. A downward spiral can result, in which poorer local jurisdictions become even less attractive to investors, talent, etc., attracting even less investment.

2.2.4 Physical Planning

Physical planning at the metropolitan scale in China, although improving, would benefit from major reform. The underlying problems are: (i) Chinese metropolitan regions are changing too rapidly to be meaningfully guided by static master plans, which proscribe desired future physical outcomes, using traditional (often out-dated) techniques such as zoning. Approaches that combine strategic / structural planning with large site scale performance based planning, are more appropriate to the Chinese

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21 All but one of the former Counties in Shanghai have been converted to Urban Districts.
22 Performance based planning is based on the assumption that master planning is obsolete in today’s fast-changing, increasingly market driven world. Furthermore, in some cultures such as East Asia where mixed use on a given site is the norm, and desirable, zoning / master planning type approaches to urban planning, which are two dimensional and generally single function in orientation are of local value. In large, dense cities, such as those in East Asia, which are as much vertical as horizontal, two-dimensional (horizontal) zoning / master planning makes little sense. Lastly, conventional master planning is poorly suited to redevelopment of built-up urban areas where new development is combined with upgrading of existing resources, including heritage resources.

Performance based planning does not negate the need for overall strategic and structural frameworks which guide urban form / function for districts. However, it recognizes that proposals for development or redevelopment of areas of cities can not be predicted as they come from a myriad of private sector and highly pluralistic public sector institutional environments.

Generally, performance based planning is undertaken on a super-block or smaller scale. Performance based planning focuses on what counts, that is, the effect of a new development on the well-being of people, the environment, the performance of the urban economy (including employment) and urban accessibility (transportation) performance. As such, performance based planning assesses a proposed development’s major impacts (defined in a focused manner) against a notion of carrying capacity. Performance planning makes a decision on a project (including recommended modifications) based on assessment of environmental emissions (air, water, noise), traffic generated (focusing on peak hours), employment created (type, likely residence location of employees), social service impacts (e.g., required classrooms), etc.
metropolitan context. (ii) Physical plan preparation is by Bureaus of Planning (part of the Ministry of Construction hierarchy), who usually contract the work to Urban Design Institutes. The plans that the latter prepare generally reflect inadequate understanding of, and attention to, demographic and market forces, and limited understanding of local conditions (endowments) and preferences of the local population. Furthermore, the physical plans often do not reflect the largely predictable spatial impacts of major public investments by other public agencies. The planning process of the Municipality of Chengdu, during the 8-10th plan periods, reflects these shortcomings. Chengdu’s Municipal Plan called for growth to the east of the city (which was rational from a planner’s perspective – lower quality agricultural land, fewer archeological assets, more reliable water supplies, etc.), when in fact most growth occurred to the west, because of major public investments in the new Suangliu international airport (to the southwest), the high tech park (to the northwest in Pixin), and tourism links to the northwest (Dujiangyang).23 The result was that metropolitan/physical development occurred in virtually the opposite direction from that advocated in the physical plan. (In the case of Chengdu this problem is now being corrected through market forces [high priced land to the west], and significant public investment to the east.)

Physical plans often do not reflect local citizen preferences, cultural and historical uniqueness, etc. As civil society develops more voice in urban planning processes in China, change is likely, possibly based on metropolitan wide civic groups, as has been the case in North America and the United Kingdom. As described in Chapter 1, such groups have played a very influential role in Chicago (dominated by business interests), New York (dominated by urban design and management professionals), Toronto (driven by the need to absorb immigrants productively, deliver affordable housing, and attract investment), and London (all of the foregoing). Equally important would be development of quality private sector urban planning firms in leading Chinese Municipalities to compete with the Urban Design Institutes and inject more innovative thinking into metropolitan planning in China. This would represent a logical progression based on previous reforms, in particular the fact that local design institutes lost direct state funding in 1983, leading to greater differentiation in product and quality.24

Shortcomings in metropolitan scale physical planning processes are exacerbated by the increasing lack of effectiveness (impact) of the hierarchical land quota system in shaping metropolitan regions. Through use of loopholes, e.g., “deurbanizing” less desirable land (often marginal, e.g., difficult terrain or remote) within a Municipality in exchange for prime urban land, net land quotas are effectively increased. Accordingly, land quotas are increasingly losing their leverage in influencing the rate and extent of physical build-up among local jurisdictions within metropolitan areas. The demise of effectiveness of land quotas is not necessarily a negative, provided land markets are working (i.e., primary markets are not under pricing land), and physical planning systems are improved, for example, to encourage high density metropolitan nodes and discourage spread of the built up city onto fertile lands.

Because metropolitan plans are often unrealistic, and outcomes on the ground diverge widely from what is proposed, the plans lose credibility, importantly, in the eyes of other government agencies (that make significant investment decisions), and private developers. More realistic plans would have

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24 For example, the China Architecture and Research Group (CAG) has evolved into an innovative architectural group, from its routes as a state-funded design institute. The same trend is not yet evident in terms of city planning despite the fact that it is now legal for private urban planning firms (national and international) to operate in China; but there is a lack of such firms, and local governments tend to keep using traditional urban design institutes, regardless of the quality of their work.

much greater influence in shaping metropolitan regions, as both public agencies and private developers stand to benefit from more foreseeable future urban spatial development patterns.

Distortions in metropolitan spatial structure, especially in peri-urban areas and satellite towns are often locally justified by Ministry of Construction standards. Local officials use these standards to rationalize overly wide roads, expansive public squares, etc. The standards are often excessive for suburban and peri-urban development in metropolitan areas. When combined with unduly low land prices in many of these peripheral areas, the result is unnecessarily low densities, and communities that lack a human scale. A further problem is that County level planning is often poorly coordinated with neighboring jurisdictions, e.g., roads, water and waste water lines, that are not properly linked (in terms of network routing, capacity, etc.) at County boundaries.

Many Municipal physical plans lack a strategic sense, reflecting existing patterns of land use rather than bold new thinking. (There are notable exceptions, especially Shanghai, which is dramatically reshaping the city through key initiatives, e.g., development of Pudong, and preservation of the historic Bund, the Expo 2010 river front site.) Other metropolitan scale (Municipal) plans are bold, e.g., Kunming (the plan proposes a regional city consisting of several new cities around Lake Dianchi), but are based on idealized design concepts rather than being driven by economic (see next paragraph) and environmental realities.

Metropolitan physical plans in China should be based on a thorough understanding of the likely future economic role of the city. This requires an understanding of contemporary drivers, e.g., rise of knowledge industries, Just-In-Time manufacturing, fast-rising energy costs, the importance of face-to-face interaction in urban innovation, etc. In other words, form should follow function, not vice versa. Given current conditions, metropolitan plans need to identify urban centers (CBDs, suburban centers, peri-urban centers) that are clearly specialized in terms of function, as is the current practice in virtually all developed country metropolitan planning systems. These centers, in turn, need to be networked, e.g., by Light Rail Transit (LRT) or heavy rail links, plus super-arterial roads or expressways, joining urban centers, key infrastructure (airports, seaports), etc. Within each specialized node, high density development (but not congestion), and specialized economic clusters should be encouraged. Evidence from East Asia indicates that strong CBDs and a limited number of suburban centers should be encouraged in China, given the increased importance of face-to-face contact, enjoyment derived from high density 24/7 environments, etc. However, care should be taken not to create too many urban centers, which will dilute activity too much and cause disinvestment in other areas, as has occurred in Qingdao, and internationally in metropolitan areas such as Manila.

At the megapolitan level, the prime issue, in terms of physical planning, is primarily a lack of legal constructs (including administrative guidelines) to give megapolitan plans legitimacy, and hence more influence. Chinese Municipalities, Provinces, and professional planners are developing approaches to megapolitan scale planning, the BTR plan being the best example to date.

Given the difficulties of coordinating extended urbanization across Municipal, Provincial, and in the case of the PRD, Special Administrative Region (SAR) boundaries, megapolitan coordination is only likely to work if it is focused on region-shaping strategic issues, e.g., regional scale infrastructure, settlement roles, and economic development. In sum, it should be strategic in nature, focus on functional / economic roles of urban centers, the routing of inter-urban corridors (served by expressways, HSR, etc.), designation of green corridors and wedges, and the location of major facilities such as airports and seaports.

2.2.5 Environmental Sustainability

Environmental sustainability is a major metropolitan issue. Environmental quality varies widely across metropolitan areas because of variance in land use, bio-physical conditions, traffic flows, etc.; but more importantly from a governance perspective, from differential investment and enforcement,
because of major differences in the intensity of efforts (particularly enforcement) and spending to reduce pollution by local jurisdictions within metropolitan regions.

Counties, in particular, because of their greater autonomy within metropolitan systems, their concern with short-term economic growth (an important criterion by which local officials are judged), and the chasing of manufacturing for fiscal reasons, are often major sources of water and air pollution. The fact that Counties are responsible for provision of environmental infrastructure within their boundaries, but are often reluctant to spend substantially on environmental infrastructure, compounds the impact of the above factors. The problem may be exacerbated by the fact that high-level corporations (international and national), with more capital and knowledge to reduce emissions locate in high-level (often national level) ETDZs and High Technology and Science Parks, leaving County and Township level industrial zones to accommodate more marginal firms. This dynamic is clearly seen in Harbin. Given the lack of Edge Cities in China (with the partial exception of Beijing) with high levels of high end service activity (as in the United States), Counties and other jurisdictions on the edge of metropolitan areas often have little choice but to pursue manufacturing to develop an employment/economic base, to some extent, looking the other way in terms of pollution implications, especially when the highest quality firms have already been lured into national level ETDZs, etc. A double effect is present, (i) manufacturing, which has more environmental impact than service activities almost invariably locates on the edge of metropolitan areas (where it should be), and (ii) the most polluting firms often locate in the economically and institutionally weakest Counties.

The culture of governance at the County level often does not place a high value on environmental quality, being dominated by “growth at all costs” thinking. Given air and water flows in metropolitan areas (and beyond), County sourced pollution often affects environmental quality in City Propers (Urban Districts), or in communities downstream or downwind. The fact that Environmental Protection Bureaus (EPBs) operate locally, although potentially a positive factor in that they are closer to the people, is often in reality negative, in that County level EPBs are subject to pressures from other local Bureaus and officials who, as noted, often value economic growth over environmental quality.

On the other hand, the movement of manufacturing from core cities to peri-urban areas has been a positive policy, successfully undertaken in most metropolitan areas in China. (In fact, China is regarded as a leader among countries in this regard.) Many firms have used land cost differential windfalls generated by the move to peri-urban areas to improve the environmental (and technical and financial) efficiency of production processes. However, this may be a one-off effect if County governments do not keep the pressure on for continued improvement in environment performance by manufacturing firms now that the relocation of manufacturing to peri-urban areas in metropolitan areas is substantially (perhaps 80%) complete.

Improving environmental quality in metropolitan areas, and particularly in Counties, will require squeezing local governments from both the bottom (civil society) and the top (environmentally progressive Municipalities). Unlike, Counties, many Municipalities in China have progressive track records in improving the quality of the environment, particularly Shanghai (where more than 3% of the Municipality’s Gross Product is being spent on environmental improvement) and Chengdu where rivers have been cleaned up (2.7 Billion RMB have been invested in cleaning up the Fu and Nan Rivers, winning Chengdu a UNESCO award), 100% of taxis operate on Compressed Natural Gas (CNG), etc. Beijing and Chongqing, starting from extremely serious base line conditions, have made considerable progress in reducing air pollution. Because Municipalities are more concerned with the overall competitiveness of metropolitan areas, encompass land areas large enough to be subject to negative externalities from high pollution Counties within their boundaries, and are involved in strategic planning for the whole metropolitan area, they tend to invest a much higher percentage of their budgets in environmental improvement, and more seriously enforce environmental regulations. Another important factor differentiating Municipalities from Counties is that Municipalities monitor the environment closely, e.g., monitoring air pollution on a daily basis, and by preparing annual environmental status reports, whereas Counties do not (although they are required to do so). Last, but
not least, Municipalities are associated with the national and international images (good or bad) of Chinese cities. Thus there is considerable incentive for officials to improve environmental quality, especially for key events such as the Olympics in Beijing and Qingdao (2008) and the World Expo in Shanghai (2010). Improvements in these metropolitan areas may (hopefully) set off amenity competition among Municipalities in China, especially as Chinese metropolitan areas increasingly recognize that amenity is one of the prime drivers of economic development, being pivotal in location decisions of leading corporations, as has been the case in North America for at least three decades.

Another issue affecting environmental quality is that Counties that deliver recreational and environmental services to the metropolitan area as a whole are not rewarded fiscally for delivering these functions. This is a particularly important issue, because given China’s current level of economic development, and cultural factors, weekend and day tourism on the edge of the metropolitan area is an important function and land use in peri-urban areas. As indicated in Chapter 1, there are global examples of fiscal transfers among jurisdictions within metropolitan regions to create or maintain green space for recreational and environmental uses. The Randstad Region is of particular interest in terms of support to environmental and recreational land use service functions, in that local land owners and local authorities are compensated through for keeping designated land in green uses. As noted, the case of the Han River in the Seoul extended urban region is another best practice, whereby upstream jurisdiction are subsidized to maintain clean water flows through the metropolitan area.

2.2.6 Economic Development

As has been argued, fiscal incentives, and past development thinking/policies that favored heavy industry, often resulted in local governments favoring manufacturing. Service activities, particularly amenity activities (tourism, MICE, retirees, amenity migrants), are often not valued highly enough by local governments, and thus are less likely to be subsidized through low land costs, etc. This situation is especially serious when pro-manufacturing policies are pursued in metropolitan regions such as Kunming that do not possess comparative advantage in manufacturing, but do for amenity. The bias toward manufacturing is seen in local government staffing. Bureaus associated with manufacturing have higher status, more and higher level personnel, etc., than those associated with activities such as tourism or business and professional services, even though the latter activities may contribute more to the local economy, and/or have more local developmental potential.

Many metropolitan areas mix incompatible land uses within short distances of each other, e.g., Dujiangyan in the Chengdu metropolitan area, Haikou in Hainan, Kunming. Not playing to comparative advantage is a problem at the metropolitan wide level, but is often magnified at the County or Urban District level. For example, a Municipality may have a policy to attract high end professional and business services (such as Chengdu) or tourists (such as Kunming or Xiamen), but areas where tourists visit (often Counties) may be polluted or visually degraded (e.g., sight lines from Xiamen’s beaches) by incompatible activities.

There is a need to undertake more sophisticated strategic assessment and planning at the metropolitan (Municipal) scale. Progress is being made on this front, facilitated by initiatives such as the Cities Alliance City Development Strategies program in China.

Once strategies have been formulated for the metropolitan area, based on a limited number of strategic thrusts, sub-Municipal governments need to cooperate. As noted, this is often easier in the West than in coastal areas, but administratively, Municipalities do have the power to guide lower level jurisdictions in terms of economic development priorities. Again, the legitimacy of metropolitan economic development strategies, that is, the ability to obtain cooperation from sub-Municipal jurisdictions, will largely depend on the quality, vision, and realism, of economic development

25 Meetings, Incentive Travel, Conventions, Exhibitions
strategies developed by Municipalities. New approaches to economic development planning are needed in Chinese metropolitan regions, e.g., economic assessment based on cluster analysis, not on sectors. Economic development planning is often poorly done, based on symbols, e.g., “3 pillars, 2 corridors, 4 belts”, than deep analysis; and frequently indicates a “cookie cutter” approach mimicking strategies elsewhere in the country that may not be appropriate to the metropolitan system in question.

Of concern is the spatial distribution of economic activities in many metropolitan areas. Even Townships and Villages build industrial development zones, offering inexpensive land to attract firms. Such activity may result in higher transport costs, higher consumption of energy, nuisance and pollution effects on those living nearby, and less efficient labor markets. From a metropolitan (and national) economic perspective, subsidizing low-end manufacturing locally may discourage movement of the metropolitan economy up the value chain.

2.2.7 Urban Expansion

The farmland reserve system in China works reasonably well, discouraging expansion onto Class 1 agricultural land. However, there are numerous cases of County officials failing to enforce the policy, allowing “farmers’ villas”, etc., to be built on Class 1 agricultural land, effectively urbanizing high fertility agricultural land. (Given that only 7% of China’s land is arable, this is a serious issue.) To a considerable degree, the problem can be addressed by enforcing existing laws and regulations. At a more sophisticated level, approaches such as land readjustment in peri-urban areas would enable farmers to own villas while minimizing loss of high fertility agricultural land, by clustering such development at medium densities, preferably on lower fertility land.

A major concern in terms of the physical expansion of metropolitan areas is that key arterial and feeder infrastructure often follows, rather than leading, physical development on the periphery. (The exception is expressway infrastructure, often part of inter-urban systems, which is frequently in place, driving development, even if piecemeal, in certain directions.) This condition, combined with small plot development, often results in particularly low quality development on the edge of metropolitan areas, areas that soon become incorporated into the metropolitan fabric, and will be difficult to redevelop (retrofit), including densification, at a later date. A further problem is that some Counties may build good local infrastructure away from edge of the built up area, encouraging leap-frogging of physical development past less proactive jurisdictions. Where possible, development should occur sequentially outwards from a significant suburban or peri-urban center, or from the edge of the built up area, along corridors, nucleated around nodes with direct access to rail and expressway systems.

Metropolitan physical expansion needs to be structured. As noted above, the dominant principle should be to create nodes (urban centers) along corridors (termed “necklace” development) to enable energy efficient and human time saving corridors to be viable.

Release of land at very low cost, especially for manufacturing, by local governments, distorts market forces that would encourage higher densities of sites on the edge of metropolitan areas through higher land prices – a desirable phenomenon that is being seen in many global metropolitan areas, e.g., Bangkok, Los Angeles, Phoenix. In these cities, developments on the edge are often of higher density than those in inner suburban locations, driven by efficient land markets.

Given that metropolitan peripheries have been driven out so far by leap-frogging development in China (especially between 1990 and 2000), there is significant potential for in-filling within current metropolitan perimeters, as is clearly indicated by remote sensed analysis. Increased infilling in Chinese metropolitan areas would save valuable farmland and land for recreational and

environmental uses on the edge of urban systems, would improve the efficiency of labor markets and economic clusters, and would reduce growth in energy consumption associated with metropolitan development. For example, much of the physical growth in Guangzhou over the last decade has occurred through in-filling (as discussed above), and time series spatial imagery indicates considerable infilling over the last decade in the case of Chengdu. Property taxes would encourage in-filling, as would increased enforcement of the build within two years after a land sale national requirement. The latter regulation is starting to being enforced in some jurisdictions, perhaps accounting for the increased in-filling seen in some Chinese metropolitan areas over the last few years.

Urban redevelopment of core areas in Chinese cities is becoming increasingly difficult as local (neighborhood) groups become more organized and demand higher compensation for land/buildings. In fact, in many cities such as Xi’an, large-scale urban redevelopment by the private sector is no longer financially viable. Given this situation, infilling back from over extended metropolitan perimeters offers an easier route to create interesting neighborhoods, innovative districts, etc., although large scale urban redevelopment will still be needed in specific cases, e.g., redevelopment and historical restoration of the area within Xi’an’s historical wall.

2.3 Policy Implications

The policy implications of the foregoing assessment of key issue areas are summarized below:

2.3.1 Metropolitan Governance Structure

In general, the structure of metropolitan Government in China is suitable for effective metropolitan governance. With a few exceptions, such as Shenzhen Municipality (which is only 2000 square kilometers in size), Municipalities in China are more than large enough to physically accommodate all forecast physical and demographic growth until 2050, after which Chinese urbanization will slow dramatically. The existing array of Bureaus (horizontal structure) and local jurisdictions (Urban Districts, Counties, etc.) is not overly fragmented by international standards. The key issue is how to make the existing structure work more effectively by changing the incentive system facing key stakeholders, public and private, as they build communities, create jobs, invest in infrastructure, etc.

In a few cases, Municipal boundaries could be beneficially enlarged (which may be politically difficult) to include key source areas of resources serving the metropolitan region, e.g. water supplies, or to respond to a vector of urban development that has progressed beyond the boundaries of the Municipality, e.g., along a major inter-urban corridor, e.g., Guangzhou.

In almost all cases, as metropolitan expansion occurs, more rapid conversion of Counties into Urban Districts would be beneficial, enabling better coordination of metropolitan development by Municipal governments. Ideally, this upgrading of status should occur before widespread urbanization occurs within the County in question, enabling infrastructure led development.

2.3.2 Re-allocation of Functions & Horizontal Coordination

A key to improved metropolitan governance is vertical re-allocation of functions. As argued above, Urban Districts and Counties should be given more responsibility for delivery of social services while Municipalities should be more involved in strategic planning, metropolitan-scale network infrastructure planning and delivery, etc.

Re-allocation of functions would result in economies of scale and improved metropolitan functioning, by delivering services at the most effective geographic scale. Removing all overlap in mandated functions is not always the best policy (it reduces inter-jurisdictional competition), but as a

27 As Beijing Municipality did in 1958, currently 16,800 square kilometers in size.
general rule, specific functions should be mandated to specific vertical levels, with minimal overlap and confusion, a situation that does not yet exist in Chinese metropolitan regions. There is a need for the national government to take the lead in this regard.

Equally important is improved horizontal co-ordination among local governments within Municipalities. There are several means to do this if strong Municipal Government led metropolitan co-ordination is not possible, e.g., (i) Councils of Local Government (CLG), (ii) Regional Districts – which can gradually add functions over time, such as the Greater Vancouver Regional District, (iii) bilateral and multilateral contracting among local governments, possibly encouraged through matching grants from Municipalities or more senior governments, and (iv) Public – Private metropolitan scale organizations such as the Greater Phoenix Economic Development Council (GPEC), the Greater Toronto Marketing Alliance (GTMA), or the Chicago Metropolis 2020 (all discussed in Chapter 1).

Within local jurisdictions, there is need for much better cross-agency cooperation e.g., in installing or maintaining infrastructure along (under) corridors. In Chinese urban areas, roads are constantly dug up to install new infrastructure, with virtually no cooperation among bureaus and agencies; improved coordination would reduce costs, construction induced delays and impacts, etc.

### 2.3.3 Metropolitan Taxation & Fiscal Reform

Fiscal systems in metropolitan areas will need to change dramatically over the next decade. In some cases this will be inevitable, e.g., resulting from declines in land lease revenues as less land becomes available to local governments to lease. Fiscal systems should be more neutral in terms of types of economic activity, not biasing local jurisdictions toward chasing particular types of economic activity and land use, such as manufacturing, for revenue reasons.

Major reform is needed to eliminate “off budget” transactions, thereby making overall local government budgets transparent, which will enable much more rational allocation of public resources within metropolitan areas. There are initial moves in this direction in that many Municipalities, e.g., Xi’an, now immediately post all primary market land transactions (sales by Government) on the internet, significantly improving the transparency and efficiency of metropolitan land markets. Such transparency could be extended to all fiscal information, in regard to both revenues and expenditures.

As argued, introduction of a property tax in China’s metropolitan areas would address many of the fiscal issues discussed, e.g., sustainable revenue generation, elimination of off-budget transactions, and neutral economic activity incentives.

Given the importance of in-filling, and denser development on the edge of built up areas, the build within two years (after land lease sales by government) requirement should be enforced.

Tax sharing between Municipal and sub-Municipal governments should be assessed in each Municipality (facilitated by development of new national guidelines), then structures and processes need to be put in place to expedite such transfers within Municipalities. As indicated in Chapter 1, there is precedent for such transfers in metropolitan areas such as Minneapolis – St Paul (US) and the Tokyo Metropolitan Government. For example, as has been argued, local jurisdictions, particularly Counties, offering significant environmental and recreational services should be compensated through fiscal transfers, from the Municipal Government, that generates revenues from richer jurisdictions. Otherwise, a perverse incentive exists to not offer land uses that are needed for the public good in metropolitan areas, but do not generate substantial fiscal revenue. The ultimate outcome, if transfers are not instituted, is that the metropolis will not offer enough spatial specialization; functions will be overly duplicated among local jurisdictions, an undesirable outcome in economic, environmental, and quality of life terms.
If social service delivery is to be decentralized within metropolitan areas, a policy currently being pursued by the Tokyo Metropolitan Government (see Chapter 1), significant transfers from Municipal Governments (and possibly other senior governments) will be needed.

We have argued for infrastructure led development, to more effectively shape metropolitan regions in China. This will require large-scale lumpy investment, but investment that will yield returns for a century or more in many cases, e.g., sewer systems, rapid transit, expressways. New forms of innovative finance are needed, particularly issuance of Municipal bonds, as in the United States, either directly by Municipalities (by the most established jurisdictions such as Shanghai) or through on lending by the national government (to smaller and lower profile Municipalities). Consideration could be given to personal (or corporate) income tax deductions to purchasers of bonds destined for local government use, as in the United States.

In the past, Municipalities (and other levels of government, e.g., Provinces, Counties) have relied too much on often ill-considered granting of concessions. The result often hinders efficiency of metropolitan systems. For example, in many metropolitan and megapolitan regions in China, tolls along certain routes (involving several concessions) are too expensive; expressway and road networks are often distorted in terms of route alignments by incremental granting of concessions.28

As a general principle, Municipalities need full knowledge of budgets of lower level governments, otherwise allocation of public resources, including transfers, will be sub-optimal. This will require large scale improvement in financial information systems, and transparency.

2.3.4 Establishment of Multi-Stakeholder Metropolitan Governance

As has been argued, the prime difference in metropolitan governance between China and developed countries is in the area of civil society and multi-stakeholder involvement in governance. Although civil society involvement in metropolitan governance has generated negative outcomes in some cases, e.g., NIMBY effects in Manila in siting of landfills, etc., increased civil society involvement in metropolitan governance typically results in better outcomes, as indicated by the experience of developed countries.

As described in Chapter 1, many metropolitan areas in developed countries have well established public-private bodies that play a key role, sometimes a dominant one, in metropolitan governance. For example, in Chicago, the Chicago Metropolis 2020 civic society group, led by well respected local business men has been highly influential in Chicago’s recent economic, demographic, and physical turnaround (the Chicago metropolitan area recently reversed its demographic decline).

In other metropolitan contexts, metropolitan wide civil society bodies take the lead in coordinating social functions and engaging specialized civil society groups in the life of the metropolis. An excellent example in this regard is the London Civic Forum (LCF). (See Chapter 1 for more details.)

In our opinion, in the case of China, private-public metropolitan-wide advisory bodies should be established driven by local industry associations, universities, and professional city builders (planners, architects, designers, etc.) Over time, more socially oriented interest group metropolitan wide bodies could be incorporated into metropolitan governance, e.g., labor, environment, over time. Accordingly, we view the Chicago and New York models as particularly relevant in terms of improving Chinese metropolitan governance in the short run.

2.3.5 China currently has four Provincial Level Municipalities: Beijing, Shanghai, Tianjin, and Chongqing. Given the increased importance of metropolitan regions, we suggest that many additional metropolitan areas be accorded this status over time. Provincial level status cuts out a layer of the

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28 Creating a situation whereby it is almost invariably less expensive to fly between Chinese metropoli, than drive.
bureaucracy, enabling Municipalities to access national knowledge and fiscal resources more readily, and obtain faster decision making from the national government. Metropolitan areas that should, in the near future, be considered for provincial level status would include: Qingdao, Dalian, Ningbo, and Xiamen.

2.3.6 Megapolitan Scale Co-ordination

China has three well-established Megapolitan Regions (PRD, LYD, Beijing – Tianjin – Binhai New Area; and at least nine new or emerging ones. Because all Chinese megapolitan systems extend beyond one Municipality’s boundaries, and often the Municipalities containing metropolitan systems within the megapolitan Region are not contiguous, co-ordination needs to involve Provincial Governments plus the metropolitan Municipalities. It is suggested that Megapolitan Committees be formed to discuss, and agree on, infrastructure and economic development roles (for Municipal / Prefecture jurisdictions within the megapolitan System) that lead to best megapolitan performance. The Megapolitan Committees would develop strategic / structural / settlement system plans for the Megapolitan Region in question, which would be approved by the Provinces (or national government) in question. Actual implementation would be the responsibility of the Municipal or Provincial governments involved, based on normal defined functional mandates. Frequently, this will involve development of Corridor infrastructure connecting nodes, agreement on economic roles of Municipalities within the system - playing to their comparative and competitive advantages within the megapolitan region, siting of strategic region-shaping facilities, etc.

As noted, to a significant extent, the above systems only require formalization, through national level administrative guidelines, and Provincials implementation.

The sixteen Municipalities in the Lower Yangtze Delta Region already meet once or twice per year to coordinate development. This includes regular meetings of the 16 mayors and regular meetings on economic cooperation organized by the policy advisory bodies of each Municipality. In addition, there are similar regular meetings involving functional issues, e.g. involving Agriculture Banks, Women’s Federations, and Transportation Agencies. The LYDR council of government has had mixed success to date. On the negative side, Shanghai continues to hold onto manufacturing that might be better located in smaller centers of the LYRD. On the other hand, progress is being made in terms of eliminating hukou (local registration) barriers to living/working within the Region, and rationalization of telephone tariffs in the Region that could reduce tolls between nearby places.

As noted, the Beijing – Tianjing – Binhai New Area, plus part of Hebei Province, has developed a structural plan for development of that Megapolitan Region. Mechanisms need to be put in place to give legitimacy to such plans, and establish levers to enable implementation of key strategies, best implemented or co-ordinated at the megapolitan scale. In this regard, the Randstad model may have considerable relevance.

2.3.7 County Level Environmental Improvement

As noted, Counties generally have particularly poor environmental records within metropolitan areas, resulting in the lowering of environmental quality within metropolitan areas as a whole. The best way to address the problem is to: (i) make environmental monitoring a requirement at the County level, (ii) enforce environmental laws and standards, based on monitoring; a measure that will require local Environmental Bureaus to be at “arms length” from other Bureaus of the local Government (or have the enforcement done at the Municipal Level), (iii) provide Counties that wish to improve

29 Shanghai; 8 from Jiangsu Province: Nanjing, Suzhou, Yangzhou, Zhenjiang, Taizhou, Wuxi, Changzhou, Nantong; 7 from Zhejiang Province: Hangzhou, Ningbo, Shaoxing, Huzhou, Jiaxing, Zhouzhan, Taizhou.
30 Economic Daily, June 27, 2005
31 “China’s Next Building Site, Building the Nation; Planning a Rival for Shenzhen and Shanghai”, The Economist, June 24 2006
environmental conditions with fiscal transfers, matching grants, etc., (from senior governments), based on actual performance. Chongming Island in Shanghai Municipality is an example of successful use of such practice. The Municipality effectively compensates Chongming County to play an ecological function, maintaining a small population, acting as the lungs and recreational field for the highly urbanized Shanghai Municipality, and now, acting as the site of China’s first model sustainable city. In Chongming, the Shanghai Government has begun construction of an “eco-city” named Dongtan, designed to be a showpiece sustainable city of 20,000 residents by the time of the 2010 Shanghai Expo.32

2.3.8 Infrastructure Led Metropolitan Development

Regardless of the extent to which physical planning, land quotas, etc., are utilized, infrastructure remains, and will remain, the main shaper of metropolitan form in China, as in most of the world. Thus to the extent that infrastructure can be put in place before large-scale development occur in peri-urban areas, metropolitan systems can be more effectively shaped. This requires both structure planning at the metropolitan, and megapolitan (where relevant) scales; and financial instruments to enable large scale infrastructure development, ahead of demand. There are many examples, globally, of best practice in this area, including by the World Bank. As noted, the largest metropolitan regions could issue bonds directly, while smaller systems should be served by on-lending. Currently the China Development Bank is playing a major role in lending to support infrastructure development in Chinese metropolitan regions, accordingly, it is well-placed to take a lead in the development of more sophisticated instruments to support Municipal development in China, including bond issuance, development of Municipal credit rating systems, etc.33

2.3.9 Peri-Urban Development

If metropolitan development in China is to be energy efficient, sustainable, and conducive to economic cluster development and innovation, peri-urban development needs to be relatively dense, and concentrated in nodes (urban sub-centers). Unfortunately, urban planning standards in China (by the Ministry of Construction) often work against such outcomes. Standards are used (sometimes as an excuse) by local governments, particularly Counties, County Level Cities, etc., to build infrastructure, roads, etc., that are beyond needed capacity, encouraging spread development. China should review these national standards; and more importantly, decentralize setting of many of these standards to the Municipal scale. The overall density guideline of the Ministry of Construction (each square kilometer of urban land should accommodate 10,000 persons – a standard that enables each household to have at least 100 square meters of space under normal Floor Area Ratios) is reasonable, but is often not achieved.

A major problem, typified by metropolitan development in Zengzhou Municipality, is that land is sold too inexpensively, particularly industrial land (which is often not subject to open bidding), in an overly aggressive attempt to induce manufacturing to locate. Under these conditions, it is not surprising that County Level Cities and other County settlements sprawl and are inefficient. Private enterprises almost invariably lease more land than they need, given that it is under priced. The solution is simple; follow the Hong Kong model of limiting the supply of new land on the primary market, resulting in higher prices. Additionally, the two years to build regulation should be enforced. A further measure would be to more strictly caveat the land use / development that can legally be undertaken on newly leased land, as in Hong Kong.

Metropolitan areas in China should consider implementing physical growth boundaries that would limit urbanization to areas within urban zones. New feeder infrastructure would not be built outside the growth boundaries. Such boundaries could surround patches as well as the core built up area, expanding in directions that would result in increased contiguity of urban form, i.e., encouraging in-

32 Dyer, G., “China to Pioneer First Sustainable City”, The Economist, September 15, 2006, pg 2
33 Yuan, Chen, Development Financing in China, Urban Land, October 2005, pp 32-36
filling back toward the built up area. The growth boundaries could be adjusted when needed (every five years) so as not to overly constrain land supply, which can lead to higher priced housing, etc. Such an approach has been successfully employed in many metropolitan jurisdictions in the United States (Portland), Germany, Vancouver, etc.

Urban redevelopment is becoming increasingly difficult in China because land acquisition by local governments and private developers in built-up areas is becoming more difficult. In general, this is a reflection of a positive trend, namely growth of civil society in existing neighborhoods. However, for the public good, urban redevelopment is urgently needed in some run-down urban cores, Xi’an, within the walled city, is a good example. Related, land acquisition needs to occur to densify built-up areas within metropolitan areas, including provision of density-supporting infrastructure, such as rail transit lines. Since private developers cannot make a profit undertaking redevelopment in many built up urban areas, given the cost of buying property and resettling residents, new win-win approaches need to be introduced. In particular land readjustment approaches whereby existing residents share in the financial benefits of redevelopment (as well as having the option of obtaining a housing unit in the redeveloped area as part of their return) should be tried. Land readjustment was very successfully employed in Japan in the post World War II period, leading to very successful implementation of a rail station based metropolitan structure, particularly in the Tokyo Metropolitan region.34

Key locational magnets such as schools (particularly high quality middle schools), hospitals, and neighborhood parks, can be used to shape metropolitan form, effectively leveraging land and housing market forces.

Land readjustment also has considerable potential to shape urban form on the built up periphery in metropolitan areas. One of the key problems of peripheral development in China is that it is patchy, based on relatively small site development. Land readjustment on the periphery allows land to be pooled, enabling high quality peripheral development that can be more readily absorbed into the metropolitan structure on a sustainable basis. Good practice in this regard is occurring outside Beijing, particularly to the north. In the Beijing case, it is usually the Township or village level of government that takes the lead in instigating such processes, which County level governments encourage, and approve when such initiatives are deemed beneficial.

2.4 Conclusions

Metropolitan systems pack a punch far beyond their demographic weight in China, and will become increasing important in this Century. China is well placed to improve metropolitan governance, given the existence of powerful Municipalities, at least in legal and administrative terms. Municipalities should increasingly use these powers to act as true metropolitan co-ordination agencies. However, allocation of functions and incentive structures, related to fiscal systems, physical planning, environmental improvement, social service delivery, and economic development, to agencies operating within these Municipalities are far from ideal, requiring reform. International experience provides a wealth of knowledge on metropolitan governance practices that have worked elsewhere, although ultimately China will have to develop its own model, or more likely customized models relevant to different regions of the country. At the megapolitan scale, action needs to be taken to legalize promising early efforts which would enable strategic co-operation among Provinces and Municipalities to co-ordinate strategic level infrastructure, and economic and settlement system roles.

34 For an overview of land readjustment approaches, see: Sorensen, Andre, Land Readjustment and Metropolitan Growth: An Examination of Suburban Land Development and Urban Sprawl in the Tokyo Metropolitan Area, Elsevier Science, Progress in Planning 53, 2000