

# PATTERNS AND PROSPECTS IN CHINA'S URBANISATION STRATEGY<sup>1</sup>

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## I - Introduction

For many years, urbanization has been discouraged in china. A major reason for this attitude was the fear of food shortages: there was a widespread belief that allocating land and labor to non-agricultural uses could jeopardize agricultural production and create food scarcity. This view is no longer held, and the government of China has decided to make "urbanization" a key dimension of the coming 10<sup>th</sup> Plan.

This paper is an attempt to discuss some of the meanings and implications of this "urbanization" strategy. Before doing so, however, it might be useful to note a basic ambiguity attached to the notion of urbanization. In English (but also in French or in Spanish, and, I am being told, in Chinese), the word is used to describe two very different realities. "Urbanization" can designate the *level* of urbanization, the share of total population living in cities. It can also designate the *process* of urbanization, the speed and manner at which cities grow. The two meanings are completely different. A low rate of urbanization (level) can be accompanied by a high rate of urbanization (process), and vice versa. Indeed, it is generally the case: the more *urbanized* a country is, the

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smaller the speed at which it is *urbanizing*. Because both dimensions of urbanization are important, this paper will deal with both, at the risk of ambiguity; but because the process of urbanization is probably even more important than the level of urbanization, the focus of the paper will be on urbanization as a process.

The paper is organized in three parts. The next section (section II) deals with the reasons for which urbanization, as a level and as a process, is desirable in China, or to put it otherwise, the benefits that can be expected from larger cities as well as from the growth of cities. The following section (section III) suggests that the benefits of larger cities and of more rapid urban growth are not automatic, but that they are a function of urban management or governance; what counts is not so much the "how much" of urbanization, but the "how". Another section (section IV) briefly discusses a key dimension of the process of urbanization: financing. A final section (section V) concludes.

## I - Urbanization should be welcomed

A frequent argument for increased urbanization levels and for speeding up urbanization processes is that China's urbanization level (ratio of urban to total population) is low by international standards. It is said to be about 30% as opposed to about 40% in countries with the present Chinese level of GDP per capita. This argument is not convincing, for several reasons.

First, there are no strong reasons to believe that the present levels of urbanization achieved by many countries, for instance in Africa, are optimal, and that they constitute a guide for China.

Then, and more importantly, "urban population" is an administrative concept in China, whereas "urban population" it is a socio-economic concept elsewhere. The three million people of the Shanghai so called "floating population" are not counted as "urban" in Chinese statistics; they would be counted as such in other countries. A more meaningful comparison should consider the socio-economic population of China and relate it to the total population. This ratio seems to be around 38%, quite close to the international ratios.

This does not mean that China is not underurbanized by international standards. The ideal level of

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urbanization, if there is such a thing, is not only a function of GDP per capita; it is also a function of other factors such as the agricultural land to population ratio. All other things equal, one would expect the desirable level of urbanization to be higher in China<sup>1</sup>, where this ratio is particularly low, than in Brazil or Thailand, where it is particularly high.

A more serious reason to suspect that China is underurbanized is that urbanization has been artificially restricted by the urban residence permit system, the hukou system. This system might very well have been socially and politically justified in China. In economic terms, however, it can be analyzed as a tax on immigration in cities. Non-hukou holders are no longer prevented from immigrating in cities, but they are barred (in some cities, at least) from certain jobs, and they do not have access to all the benefits enjoyed by hukou holders. It is as if their real wages were reduced. This does not stop immigration, but it certainly reduces it, relative to what it would be in the absence of these barriers to entry, which are uncommon in other countries.

The case for increased urbanization in China can be based on two observations. The first is that everywhere it has been shown that urbanization (as a level) is associated with productivity. The second is that urbanization (as a process) is associated with mobility. Because China needs to increase productivity, and perhaps even more mobility, it stands to benefit from urbanization.

## Urbanization and Productivity

It has been observed everywhere that per capita income is higher in cities than in rural areas, and higher in large cities than in smaller cities. Available data for China show that this is also true of China. Why is it so? Some people have argued that it was so because cities "exploit" rural areas. This might have been true in former times, when output was largely agricultural output, and when land rents accrued to city based landlords. This is no longer the case. Neither Hong-Kong nor Singapore, these city-states, owe their remarkable economic performances to the exploitation of a non-existing "rest of the country."

The reason why incomes are higher in cities, particularly in large cities, is simply that productivity

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<sup>1</sup> As in Japan or Korea.

is higher in cities, particularly in large cities. This is true not only of labor productivity, but also of capital productivity, and even of infrastructure productivity. This point has been very well documented on the case of France (Rousseau 1998), as illustrated in the following Table 1. Paris, in this Table refers to the 11 million large Paris socio-economic agglomeration.

**Table 1 - Productivity of Paris and the Rest of France, 1989**

	Paris	Rest of France	Difference
Labor productivity (1000F/worker)	346	259	+34%
Capital productivity (Output/capital)	0.93	0.73	+27%
Productivity of infrastructure (Output/infra)	4.49	2.45	+83%

*Source:* Rousseau 1998 p. 64

*Note:* Output and workers refer only to non agricultural output and workers

Thus, urbanization as a process creates economic growth. My moving labor and capital from lower to higher productivity areas, it automatically increases average productivity. Urbanization is driven by a push factor as well as by a pull factor. Because productivity –and incomes– are low in rural areas, farmers want to leave rural areas: this is the push factor. Because productivity is higher in urban areas, urban enterprises want to attract workers: this is the pull factor.

## Urbanization and Mobility

More important perhaps is the relationship between urbanization as a process and mobility. A key characteristic of China is not so much a lower than average level of urbanization, but a lower than average level of mobility. In spite of recent progress, products mobility, labor mobility and capital mobility remain restricted, and therefore lower than desirable, in China.

Restricted products mobility - At the provincial level, some rampant protectionism can still be found. It usually takes the form of non-trade barriers, such as products specifications, or differential registration fees (as in the case of automobiles). This is reflected in the apparent low level of specialization of cities. Each city tends to produce a little of everything. Just as there are benefits of international trade, there are benefits of internal trade. China stands to gain from joining the WTO. It would also benefit from a CTO (China Trade Organization) that would do for internal trade what WTO is expected to do for international trade.

Restricted labor mobility - A number of mechanisms presently restrict labor mobility in Chinese cities. The hukou system is the most obvious one. It limits quantitatively and qualitatively in-migration in cities and also inter-city migration. So do enterprise provided housing and retirement schemes. Some cities are officially ready to lift the hukou system for the highly qualified workers they need.

Restricted capital mobility - Less visible, but perhaps more important, are obstacles to capital mobility. Chinese enterprises are usually attached to one city only; few have branches in other parts of the country, even when they are successful. Most investments are financed either at the enterprise level out of retained profits, or at the city level, out of the pool of city enterprises profits, or by a city-controlled bank. There are few mechanisms to ensure that scarce capital is invested in the most profitable sectors and locations. Foreign enterprises in China are in a much better position here, because they can and do choose their lines of products as well as their locations, and this goes a long way to explain why they are often more profitable.

Restricted wage structure flexibility - Wage differentials are small in China. This means that the productivity of labor for high skilled workers is probably much higher than their wages, whereas the opposite is true for low-skilled workers. Enterprises have not much interest to hire low-skilled workers and probably tend to replace them by capital. This results in reduced employment, overuse of scarce capital, and higher production costs, relative to what would be desirable.

The process of urbanization can greatly contribute to increase these four forms of mobility, and hence to increase productivity and growth. Reciprocally, improving factors and product mobility will favor urbanization. City immigrants are, nearly by definition, extremely mobile. They are ready to go to the sectors and the locations (both interurban and intraurban) where market signals indicate that they are most needed and therefore most productive. This in turn facilitates capital mobility because investors will, in their preferred location, find the required labor force. Immigrants, who are generally low skilled are ready to accept low wages -because these wages will be much higher than the alternative rural income or wages- in line with their low marginal productivity. This will induce enterprises to offer the corresponding jobs, thus increasing employment and saving scarce capital resources.

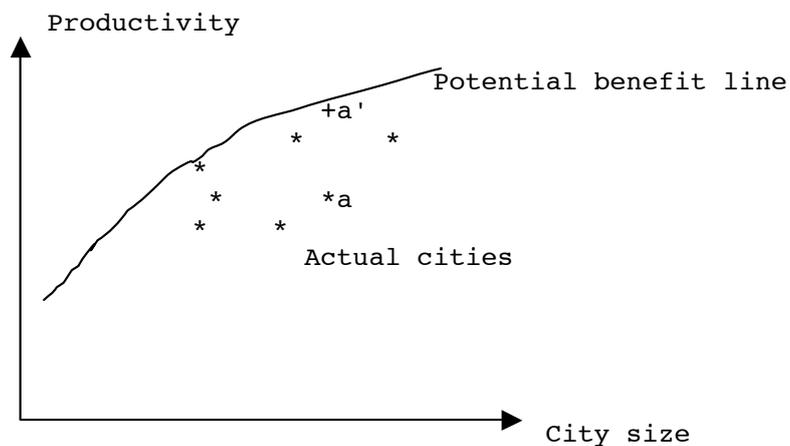
### III – Urbanization should be managed

#### Importance of urban management

The benefits of urbanization and of urban size described above are only potential. They are contingent upon good urban management. This can be illustrated by the following Figure 1. On this Figure, the line that increases as city size increases is a maximal or potential benefit line. It indicates the per capita or per worker output (productivity) that *can* be achieved as a function of city size. All cities are located on or below this line. In reality, many cities are located below. They do not all achieve their full productivity potential, because not all cities are well managed. The difference between the effective productivity of city of a certain size and the productivity potential associated with this size –the line aa' on Figure 1– could be called the management gap.

**Figure 1 - Potential and Effective Benefits of Urbanization**

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This puts the issue of the desirable or optimal city size in a proper perspective. The widespread fear that big cities are too big is not founded. There are in the world very large megacities which are not too large relative to their managerial capabilities. Tokyo agglomeration, with more than 30 million people, is the largest world agglomeration. But it is not "too large". Because it is rather well managed, it is also one of the most productive and efficient city in the world, with one of the highest GDP per capita or per worker to be found in the world –and a total output which is not much lower than that of China as a whole. By contrast, one can find in certain parts of

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the world relatively small cities of 200,000 or 300,000 people which are much too large for their limited managerial capabilities. The managerial gaps of Figure 1 are *not* a function of city size. Large cities are indeed more difficult and more costly to manage. But they also have more human and financial resources to do it.

It is important to note that good urban management is not a product of the market. It is a matter of institutions, of regulations, of taxation, of subsidies, of public intervention and accountability. There are many useful things that market forces can bring about. Good governance is not one of them. All economists agree on that. The market is a wonderful allocation mechanism *when it works*. But there are fairly well identified cases, known as "market failures", when the market does not work properly. The three main types of market failures are the existence of pure public goods, the existence of externalities, and the existence of declining returns to scale leading to natural monopolies. In the presence of such market failures, some public action or intervention is justified. The key point here is that market failures abound in cities. Externalities, in particular, are numerous in cities. Indeed, positive externalities or agglomeration economies are the *raison d'être* of cities. Negative externalities, such as pollution or congestion, are also very present in cities. Urban market failures are the justification of urban interventions or policies or management. It is not by accident that the words "policy" and "politics" come from the Greek word "polis" that means "city". Indeed, urban management could be defined as public actions aiming at magnifying positive externalities and limiting negative externalities.

## Objectives of Urban Management

Can we give a more concrete meaning to the notion of urban management? Good urban management or governance has many dimensions. Facilitating factors and products mobility and therefore permanent adjustment and increased productivity is one of them, as discussed above. Preventing and easing social tensions in urban areas is another one. A study conducted on a sample of 25 French cities (Prud'homme and Lee 1999) on the mechanisms of urban productivity points out to two key management dimensions: transport policy and land use policy.

The study hypothesize that urban productivity ( $Y$ ), i.e. output per worker (adjusted for differences in

industry mix) is a function of the effective size of the labor market (L):

$$Y = f(L).$$

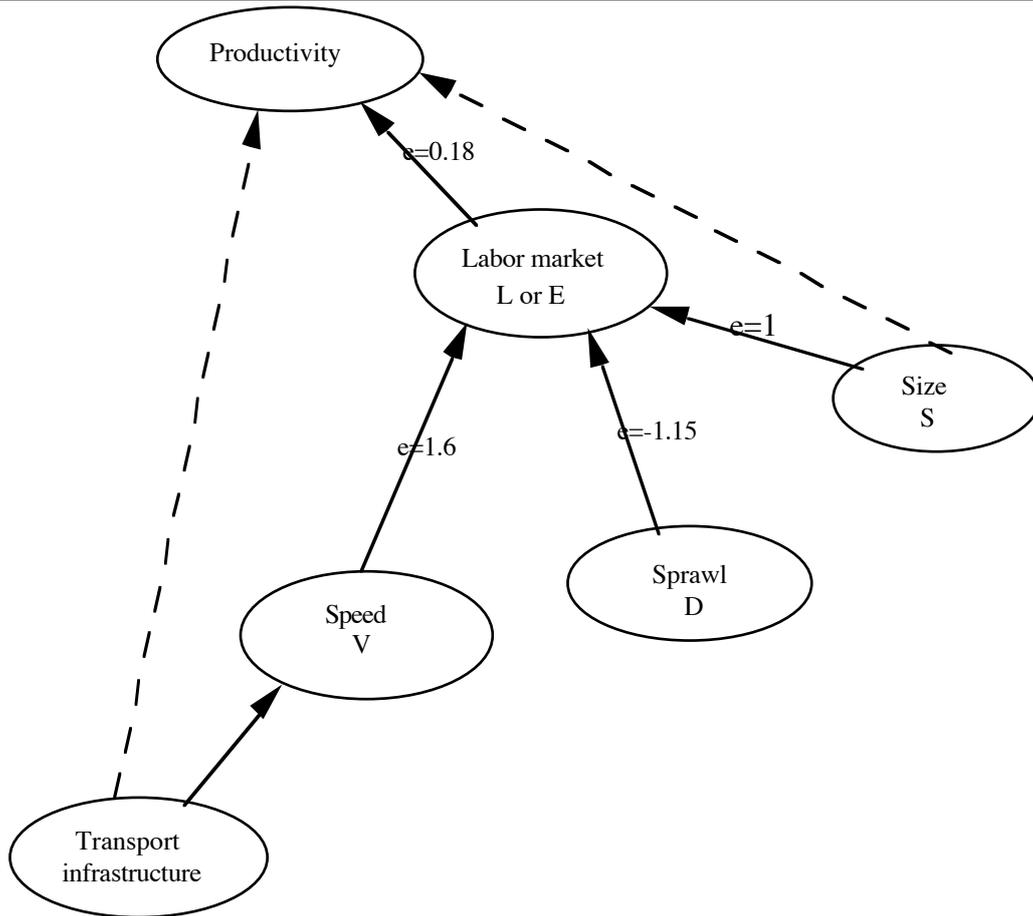
This effective size is defined as the average number of workers that can access an enterprise in less than  $t$  minutes, with  $t=30$  for instance. It can also be defined from the viewpoint of enterprises, as the average number of workers who can come to work in less than  $t$  minutes. The theory behind this hypothesis is that the larger the effective size of the labor market, the greater the choice of both enterprises and workers, the greater the likelihood that they will find the type of work or workers that suits them best, and the greater the resulting productivity. This hypothesis is supported by a simple econometric analysis that shows a good correlation between the two variables, and an elasticity of productivity to effective labor market size of about 0.2. In other words, when the effective size of the labor market increases by 10%, average output per worker increases by about 2%.

What then determines the effective size of the labor market? Three factors, the three "S": the size of the city (S), the speed at which workers travel to work in the city (V), and the sprawl that characterizes the city (D):

$$L = f(S, V, D)$$

This rather self-explanatory hypothesis is supported again by a simple econometric analysis. The elasticity of labor market size to speed is about 1.6 (when speed increases by 10%, the effective labor market increases by 16%, all other things constant); the elasticity to sprawl is -1.15 (when sprawl, defined as the average distance of all jobs to all home, increases by 10%, the effective labor market diminishes by 11.5%, all other things constant); and the elasticity of labor market size to city size is about 1 (when the city size increases by 10%, the labor market also increases by 10%, all other things constant). The two relationships can be combined. When speed increases by 10%, then productivity or output per worker –and therefore the output of the city– increases by slightly less than 3%. Transport speeds are, in turn, increased by transport infrastructures: one recognizes the familiar relationship between transport infrastructure and productivity. These findings are represented in Figure 2 below.

Figure 2 – Efficiency of Cities



The elasticities, estimated on a sample of French cities, should not imprudently be extrapolated to the rest of the world. More similar quantitative studies would be necessary to that effect. But the basic finding is probably fairly robust: *an efficient city is a compact city where transportation is fast*. This designates transport policies and land use policies as two key variables in urban policies. Urban management should aim at facilitating urban transport speeds, and at limiting urban sprawl.

As a matter of fact, this seems to be largely understood in China, at least as far as the first policy objective is concerned. Massive urban highway networks of ring roads are being built in many Chinese cities, that should contribute to increase travel speeds, and will be a key asset of Chinese cities in the next future. It is not sure that the second objective of keeping cities compact as much as possible is equally diligently pursued in all Chinese cities.

## Institutions of Urban Management

Urban management is conducted by urban managers (mayors and their staff) in the framework of urban institutions. There is no preferred model of urban institutions or governance. As a matter of fact, most countries are not fully satisfied with their existing governance systems, and are constantly reforming them (or talking about doing it). It is for each country to find its own set of institutions, taking into account its history, its geography, its economy, its culture. It is important to realize that no system will be perfect, and that no system will last forever. Nevertheless, some ideas can be derived from international experience in this area.

*Status of cities* - In certain countries, and certainly in China, the status of cities varies. Some have more powers than others. The taxes and fees paid by enterprises and individuals differ as a function of the city status. This must be seriously reconsidered. While it is true that uniformity in responsibilities and resources need not always be the rule, and that experiments are often useful, it must be recognized that diversity of treatment can lead to resource misallocation. Investment and workers will be induced to go to certain cities rather than to others, not to where they would naturally find it most efficient to go. Competition between cities will be distorted. Tax collection efficiency will vary according to city status. Policy by exception is rarely efficient. It is based (in the best of cases) on the hypothesis that "planners know better"; this hypothesis is generally mistaken.

*Delimitation of cities* - City borders are defined administratively, and in many cases follow ancient patterns. These administrative boundaries do not always coincide with socio-economic realities. The labor market basin, or the water basin, for instance may be larger than the city borders. This obviously creates a problem for urban management. The temptation is to look for an optimal delimitation. There is no such thing. The area that would be optimal for water management will not be optimal for air pollution control, or for urban transportation. Cities that are too small would like to be integrated into a larger, metropolitan government area; but cities that are too large find it necessary to create sub-metropolitan entities that are closer to people's needs. This is an area where the "better" can be an enemy of the "good". One must accept the fact that no administrative border pattern is perfect, that compromises must be struck, that

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cooperation (both horizontal, between adjacent institutions of the same level, and vertical, between institutions of different levels) must be developed.

*Staffing and training* – Managing a city is a complex task that requires specialized expertise, and should attract competent people. A basic distinction can be made between the leaders and their staff. The leaders, that is the mayors, must be politicians, whether elected or appointed, and they must be selected on the basis of their political skills, that is their ability at feeling people's wishes and enterprise's needs, their capacity at preventing or solving conflicts, their negotiating capabilities, their vision, their common sense. The more knowledgeable they are, the better, of course, but they need not be specialists in urban management. They cannot really be trained, except for brief seminars. Their staff, on the other hand, can and should be professionals, selected on the basis of their urban management or technical competence, more than their political skills. They can and should be trained.

*Allocation of responsibilities and resources* – Decentralization, that is the allocation of responsibilities and resources, particularly tax resources, within the various levels of governments (Central, provincial and local governments) is everywhere a major unsettled and ongoing issue. China is no exception (Bahl 1998,1999). In China, things are more complicated than in many other countries because, until recently, and even now to a certain extent, the distinction between central government taxes and subnational government taxes was not very clear. Similarly, there was no distinction between a central government tax administration and a local government tax administration. To a large extent, in spite of the substantial autonomy enjoyed by subnational governments, true city government has yet to be invented in China. Defining clear and efficient rules of the game in this complex and delicate area is a prerequisite to good urban management in China, and a massive task.

## Managing the Social Dimension of Urbanization

Urban growth is economically desirable, but can be socially disruptive. Like all changes, it usually involves winners and losers. Even if what is gained by the winners is much larger than what is lost by the losers, and is therefore beneficial for society at large, the losers will not stand still and will try to oppose change. Successful

change, therefore, implies a serious consideration of potential losses, and attempts at compensating or limiting such losses. This issue is particularly obvious and important in the case of the relaxation of the urban residence permits. A political economy analysis of this relaxation would consider and try to measure five different impacts.

A first impact is an increase in the average productivity of cities. This economic impact is very desirable, and will potentially improve the income and welfare of all urban residents.

A second impact is a large increase in the welfare of the present "floating population", the non urban permits holders who are already working in cities, and who represent some 10 to 30% of the total present population of urban areas. They will have access to all the services and jobs presently available to urban permit holders only. They would of course strongly support the measure.

A third impact is an increase in the number of newcomers to the cities. These immigrants would also greatly improve their lot, even if they obtain only low wages, because they have presently a very low income in rural areas.

A fourth impact is a relatively small increase in the income of people who will remain in rural areas. Agricultural output will not decline much as a result of increased outmigration, but will be shared by a smaller number of rural workers. In addition, rural income will also increase thanks to the money sent back home by the newcomers to the cities.

The fifth impact (and the only negative one) is that existing urbanites stand to lose something because they will have to share their present benefits with the non-permit holders already living in cities, and because the wages attached to unskilled work might go down because of the increase in the supply of unskilled work.

Present urban resident permit holders, however, need not be losers, at least not all of them. On the one hand, they will be hurt (this is the fifth impact). But on the other hand, they will gain (this is the first impact). In addition, the resulting per capita income in rural areas will create a demand for their output, and additional sources of gains and activities. Which of these impacts will be greatest, and what will the net impact be? If the increased population size and mobility leads to an

increased output and income, as can be expected, most will be net gainers. They may not realize it presently, because they see more easily the loss (the need to share with others) than the gain (the potential increase in productivity). They must be educated to that effect. In addition, for the few that might be net losers, some social safety net should be put in place. In all cases, the transition should not take place overnight, and it need not take place everywhere at the same time.

## IV -Urbanization Should Be Financed

The process of urbanization requires investments, and these urban investments have to be financed. Estimating the amounts that are required, and finding out they can be paid and financed (the two concepts are related, but different) is indeed a real challenge.

### Types of Urban Investments

It might be useful to distinguish three types of urban investments that are equally necessary for a city to grow, but that are different in terms of financing mechanisms: housing, productive investments, and infrastructure. When a city grows, the stock of housing must be increased to house more people, the stock of productive capital must be increased because output is to grow, and the stock of infrastructure must also be increased because more people and enterprises must be serviced. It would be interesting to know the relative importance of these three types of urban investments in China. Note that the relative importance in terms of stocks is not the same as the relative importance in terms of investments, because the lives of these types of investments are not similar. Houses are built for many years. So are most infrastructure. But productive investments often have a short duration of life and get amortized much faster. Studies undertaken on the case of France suggested that in term of stocks, housing was much more important than productive capital, which was more important than infrastructure. In terms of investments, however, productive investment was more important than infrastructure, which was more important than housing.

For infrastructure, another distinction is important and useful from the viewpoint of financing. For certain types of infrastructure, it is technically possible to

charge a fee, and to make users pay. This is the case for water, for power, for highways, for instance. For other types of infrastructure, such as streets or schools, this is not possible, and the bill must eventually be paid by taxpayers.

In China, the same actor, namely the city administration, is presently responsible for these three types of investments. It need not be so. In most countries, housing is the business of developers, who can do it as well and probably better than enterprises or local governments. Productive investments are undertaken by enterprises, be they public or private, not by governments. Fee producing infrastructure investments are normally undertaken by local governments, or by independent but controlled specialized utilities. Non fee producing infrastructure investment must be undertaken by governments, central or more generally subnational governments.

**Table 2 – Financing Mechanisms for Various Types of Urban Investments**

	Housing investments	Productive Infrastructure investments		
		investments	Fee-producing	Non fee producing
<b>Duration (years)</b>	100	5-20	70	70
<b>Investor</b>	Developer	Enterprises	Controlled utilities, Government	Government
<b>Financing</b>	Households savings Borrowing	Retained earnings Borrowing Bonds Equity	Retained earnings Borrowing Bonds Equity Taxes	Taxes Borrowing Bonds
<b>Final payer</b>	User	Consumer	User	Taxpayer

As shown in Table 2, that summarizes this discussion, housing investments can be financed by households savings, and by long term loans from the banking sector, rather than by taxes. Productive investments are financed either by retained earnings, by bank loans, by bond issues, or by equity. It is not desirable that they be financed by taxes. Fee-producing infrastructure investments can be financed by taxes or just as productive investments when they are undertaken by a private utility. Non fee producing investments can be financed by taxes (or subsidies) and by bank loans or bond issues.

The distinction between fee and non fee financing urban infrastructure investments is well understood in China, unlike what is found in many developing countries, where resistance to making users pay for the services they

get, in the case of water for instance, is often very strong. So much the better. As a general rule, it is certainly desirable to make people pay for what can be paid, and to use scarce tax money for other purposes. This rule, however, should not be carried out too far. If it were, only infrastructure projects with a sufficiently high rate of *financial* return would be undertaken. Yet, there may exist infrastructure projects that have a high rate of *economic* return and a low financial rate of return, in the area of transportation for instance. Such projects are nevertheless worthy and deserve to be undertaken. They might require a subsidy, financed out of taxes, to become financially attractive.

### Prospects and Dangers of Financing by Borrowing

As can be seen from Table 2, borrowing is a financial option for all types of urban investments. Borrowing from the banking sector, or bond financing on financial markets, is justified to finance urban investments because most of them have a very long life. But borrowing is not always an easy solution, and must be undertaken with care. It calls for several comments.

One is that borrowing for urban investments must be transparent and open. One must know who is borrowing, for what, for how much, for how long, and at what rate. It is not sure that these conditions are always met in Chinese cities. It seems that a number of infrastructure investments are undertaken by city controlled enterprises that borrow on the market or from banks for the municipality, in exchange for some sort of privileges or monopolies. Such schemes, which are not very transparent, are not necessarily efficient.

Then, subnational governments borrowing must be controlled by the central government. The Ministry of Finance and the Central Bank have the difficult task of macro-economic management, which involves controlling total indebtedness. In addition, there might be a moral hazard problem. Local governments cannot easily default, and the central government is often asked to guarantee, explicitly or implicitly, their loans, which encourages them to unsafe borrowing. Countries like Brazil and Argentina have much suffered from excessive uncontrolled subnational borrowing, and China must avoid their mistakes.

Third, projects, particularly infrastructure projects, must be submitted to cost benefit analysis. This

is more or less done automatically when the borrower is a private entity borrowing from a private bank. It must be done systematically in the case of infrastructure projects. There is nothing wrong in borrowing, as long as the money borrowed is invested in projects with a sufficiently high rate of return: they will produce the income needed to pay interest and principal. Difficulties begin when the money borrowed is invested in projects with a rate of return lower than the interest on borrowed money.

The distinction of fee financing and non-fee financing infrastructure projects is important when it comes to subnational governments borrowing. Borrowing for a fee financing project is completely different from borrowing for a non-fee financing project. In the first case, a financial rate of return analysis will tell if and how the project will generate the income needed to pay interest and principal. Not so in the second case, for non-fee producing projects. In that case, borrowing can only be justified by the rate of growth of activities and taxes, irrespective of the economic rate of return of the project. In statements of government indebtedness, the two types of debt should not be lumped together, but should rather be clearly distinguished.

## V - Conclusion

Resource allocation is the key to economic development. Resources have to be allocated efficiently between factors of production (labor and capital), between sectors and enterprises (to the most efficient ones), between consumption and investment, and also between places. This is what urbanization is about. It can and should improve the allocation of resources between locations, and in so doing contribute to improve it amongst all other uses.

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