

ON EVOLUTION OF LAND POLICY AND INDUSTRIAL LAND USE IN CHINA

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ABSTRACT

Industrial land, acting as the basic production element, plays a crucial role in the industrialization process. Whereas, as agricultural, residential and commercial land management becomes much emphasized, less attention is paid to industrial land. Based on literature review and data mining, the paper briefly analyzes the evolution of land policy in China and presents a description of industrial land use during the process, dividing the whole period into four stages. In each stage, there are some specific conditions of industrial land use, as the industrial land allocation changed from freely administrative allocation to the bid invitation, auction and listing with reserve price in policy. The features of large area, low intensity and free/low price of industrial land have remained through all those years, waiting to be further addressed. Country-wide data and practices show that several problems stays around the country. In a context that allocations of industrial land are mainly driven by policy, the regulatory function of market mechanism is quite limited. A few suggestions are proposed to improve the situation at the end of this paper.

KEYWORDS

land policy, industrial land, potential subsidies, inefficient use.

INTRODUCTION

In the late 1950s, the output from industry reached 70% of the total industrial and agricultural output (Wang, 2003). Since 1978, the industry sector has been contributed more than 35% of the GDP every year, while in 2009, 39.7% of the GDP came from industrial part¹. Urban area expanded fast in the last three decades, whereas the percentage of industrial land in the total urban land kept above 20%. As industrialization remains as one of the top priorities, industrial land has also played a very important role in land allocation in China.

Land policy of the country has gone through dramatic changes since 1949 thus industrial land use demonstrated different features in corresponding periods. Many studies have reviewed the reform of urban land policy in China (Liu & Yang, 1990; Qu et al., 1995; Zhang, 1997; Ding, 2003; Tian & Ma, 2009; Xu et al., 2009), while some explored the special condition or role of industrial land use during the reform process. Ding (2003) found that in the early days industrial land was one of the most dominant land use patterns in urban area not only in amount but also in location, due to the industrial policy aiming to realize industrialization. At the same time, some industrial projects took more areas of industrial land than the demand, resulting in inefficiency of land use. Wang & Cui (2003) compared the scale and intensity condition of urban development zone from different countries, implying that industrial land in China was of lower efficiency in early 2000s due to inadequate use. Xu et al. (2009) illustrated the negotiation form of industrial land during certain period when other commercial land can only be transacted in the form of tender or auction, and this led to illegal industrial land occupation. Hong & Zhang (2009) analyze the dual-track land allocation system in the land reform process which resulted in fever of urban land development, and 'enclosure movement' of development zone in many cities largely influenced the current expansion of the cities.

However, few studies have explicitly presented the impact of land policy evolution on industrial land use. This leads to unclear understanding also insight of the current situation of industrial land use and the new development trend. Therefore, this study aims to investigate the reform of industrial land policy and the

¹ China statistical yearbook 2010

corresponding performance of industrial land in the each stage. Based on the history, an in-depth discussion is conducted on the problems of current means of allocating industrial land, and potential measures are put forward for reference.

METHODOLOGY AND DATA

This study briefly reviews the evolution of land policy as well as industrial history in modern China, presenting a systematic track of general features of industrial land use in different time periods. There are several dramatic changes in land ownership and tenure system, which bring about different landscapes in allocation and use of industrial land. This study captures these turning points which mark the beginning of a new stage to divide the whole period, from the foundation of the country in 1949 until now, into four stages.

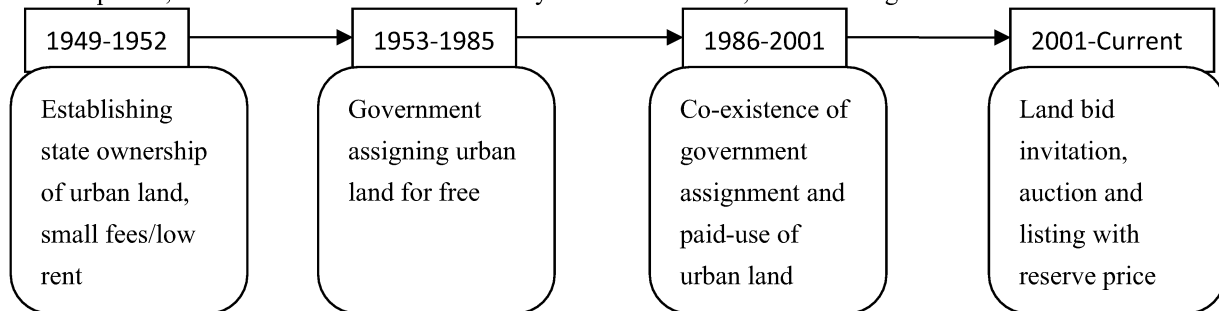


Figure 1 The different four stages of land use

Data such industrial land area, GDP, price used in this paper collected from different sources of authority, including year book, literatures and government platform.

REFORM OF POLICY AND INDUSTRIAL LAND USE

Since 1949, several big reforms have been made in land tenure system and land allocation, while industrialization has been one of the unchanged development priorities in China. The reform had significant impact on allocation and use of industrial land, leading to different performance of industrial land in practice. According to the changes in policy on land allocation, the paper divides the whole period into four stages.

1949-1952: establishing state ownership of urban land, small fees/low rent.

Before PRC was founded in 1949, the state-owned and private land coexisted while the latter could be traded, rent and so on. After that, the government changed most of urban land to stated-owned land through administrative take-over, confiscation, redemption, and legal announcement, etc, and gradually established the state ownership of land in China. By 1953, virtually no land was privately owned any more. Individuals and institutions have to pay rent or some fees to use the land, which are determined by the government. But land was not acknowledged as a commodity and there was no formal market of land trading then. Therefore the rent and fees determined by the government could not reflect the true value of land. Administrative power is the main tool of allocating land (Zhang, 1997).

During this period, the economic development was put as the highest priority. The country directly participated in industrial projects, and lots of land for industrial utility was allocated for free. The gross industrial output increased from 14 billion RMB in 1949 to 34.9 billion RMB in 1952, with the industrialization rate rising from 12.57% to 19.52% (Kuznets,S., 1985). Due to the fact that the output was the major concern, few attention was paid to amount of land used. Moreover, as the emphasis was put on heavy industry, the ignored intensity tended to be very low.

1953-1985: government assigning urban land for free

This period saw the rise and frustration of industrial development in China. The first five-year plan (1953-1957) set the mission of building 694 industrial projects designed with the help of Soviet Union. This resulted in improvement of industrial and agricultural output, with industrial output increasing from 45 billion in 1953 to 70.4 billion in 1957, counting 70% of the total industrial and agricultural output (Wang, 2003). The big success of the first five-year plan triggered a big country-wide rush of industrial construction in the second five-year plan. Thousands and hundreds of factories were built; the goals of industrial output skyrocketed, leading to severe problems undermining the internal structure. To improve the condition, several measures were taken by the central government to adjust the development, including reducing the amount of factories. Until 1962, 31.6% of

the factories were closed (Zhu, 1989). By 1965, more factories were shut down, and large amount of industrial land became deserted (Jin, 2009). The late 1960s and 1970s witnessed another cycle of rushing goals and decreasing output, with disorder in different industrial sectors. From 1978 to 1980, large number of projects under construction was cancelled or delayed. The sixth five-year plan (1980-1985) with reasonable steps and policies brought the general track back to light; both number and efficiency of the projects exhibited a prominent improvement.

Files issued by Financial Secretary and Department of Interior in 1954 cancelled the rent and fees set for land-using (Lei, 2005). All lands for construction were determined by the land resource plans. Urban land was characterized by free supply through 'user application and government administrative issuing' (Qu et al., 1995). Each of the five-year plans between 1953 and 1985 emphasized the economic growth through industrial expansion, while industrial projects exploration was taken as the most direct way to achieve those objects. Every plan proposed much large investment in building of factories, despite many former factories became deserted. Therefore the total scale of industrial land expanded with a quite impressive speed. The twice major depression followed aggressive construction caused a great waste of industrial land. At the same time, the system of free allocation of land stimulated state-owned enterprises and institutes to claim much more land than they truly needed, leaving vast land deserted throughout the country (Qu et al., 1995; Li & Ma, 2009).

Around the spring of 1979, there was a land tenure reform going on in rural land, but no revolution occurred to urban land. As in the former period, the output was the main concern, land was still undervalued. There was little sense of land intensity, no specific standards or criteria were made to measure the amount of land area that a certain project demands. All these contributed to a country-wide waste in industrial land.

1986-2001: co-existence of government assignment and paid-use of urban land.

Significant progress was brought to agricultural development after the reform of ownership, allocation and management of agricultural land, while urban land experienced no fundamental revolution. Contradiction among different land policies resulted in a temporary messy condition in urban land management, and the demand of more systematic urban land administration became unprecedentedly intense. In 1986, the Land Administrative Bureau, which was responsible for land management, was founded at various government levels. Meanwhile, the first land law, the Land Administrative Law (LAL), was launched (Qu et al., 1995). Following the reforming and opening-up policy, Shenzhen Special Economic Zone in 1987 transferred land through grant by negotiation and auction for the first time. In 1988, Fuzhou, Haikou, Guangzhou, Xiamen, Shanghai, Tianjin and other coastal cities also conducted a pilot. In the same year, the State Council published 'Regulations on land use tax collection in cities and towns', which required land use tax to be collected in all cities and townships at different rates throughout the country (Liu & Yang, 1990). The following regulations (eg, Provisional regulations on the granting and transferring of the land use right over the state-owned land in cities and towns, 1990) and amends to the law (eg, the land management law was amended in 1988, 1998 and 2004) further strengthen the whole system.

In the period, the paid use of urban land became more popular, but some specific land use was still allocated free to the users. The industrial land area achieved a steady rise (Figure 2), from 2.70 million ha in 1986 to 3.59 million ha in 2001, with the industrial GDP dramatically rose from 396.70 billion RMB to 4237.46 billion RMB (Lin & Liu, 2008).

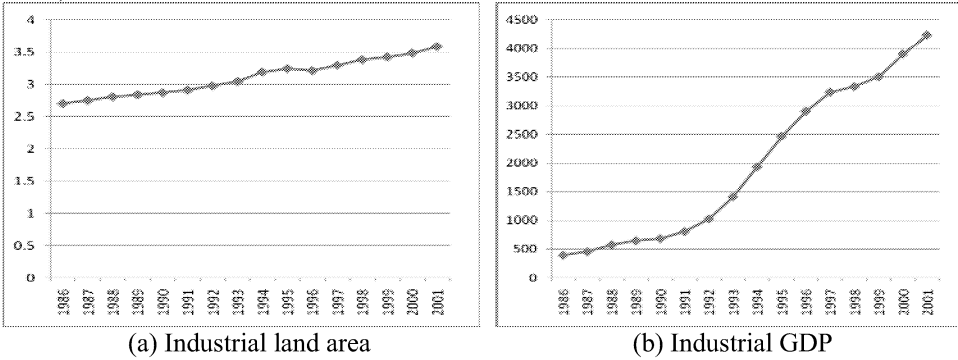


Figure 2 Industrial land area and industrial GDP in China during 1986-2001(unit: billion hectares, billion RMB)

Notes: Industrial land area uses the vertical axis in (a), Industrial GDP uses the vertical axis in (b)
 Data sources: Lin,R.M. and Liu,X.M.(2008).

The dual-track of market and administrative allocation coexisted. This situation brought about the ‘enclosure movement’. Enclosure movement was the prevailing phenomenon that institutions including government agencies that might get free land applied for larger areas of land than they truly needed. One of the most dominant types was development zone, in which the land was mainly planned as industrial land. By 2001, the average planned area of development zones above the province level was 17.25 k m², with only 1.86 k m² built (Wang & Cui, 2003).

2001- current: land bid invitation, auction and listing with reserve price

The first decades of 21 century witnessed a fast urbanisation of China, as the urbanisation rate reached 33.28% in 2009, and total urban built-up area was more than 30 billion m², with 20.53% of that was industrial land. When the ‘enclosure movement’ went on and became fiercer in 2003, the issue that vast waste and inefficient use of industrial lands happened in development zone in lots of cities was brought to the spotlight. According to the survey result from the LAB, the planning area of development zones in 24 provinces and cities had surpassed the total urban built-up area of the country; however, only 57% of the land in approved development zones had been in fully developed (Cai et al., 2011). On the other hand, since the industrial land was much cheaper than residential land, a phenomenon of building commercial houses in the cheap industrial land prevailed. To control those illegal land use, many informs (such as the urgent inform About Pausing Approval of Kinds of Exploitation Districts and the inform About the Liquidation and Neatening of Kinds of Exploitation Districts and Strengthen the Management of the Constructing Land) were issued by the State Council to further regulate the land market and land use in the following years.

In 2001 the State Council on the strengthening of state-owned land asset management proposed to greatly promote land-use rights bidding and auction. According to the regulation, after the announcement of land supply for commercial real estate development and other use, if there are more than one intentional land users of the plot, the land must be approved by public tender or auction, which changed the means of using land from administrative allocation to market allocation. Transfer modes of industrial land varied from "creating conditions for gradually execute" (2004)² to “must adopt”(2006)³ bid invitation, auction and listing, the configurationally role of the market have continued to be promoted and strengthened. Also, a reserve price is demanded to be set and published as a criteria to the transactional price.

The policy of bid invitation, auction and listing with reserve price was into full execution in 2007, and the annual growth rate of industrial land price was the highest over all types of land, with nearly 16% in 2007. However, compared to the price of other land categories such as commercial and residential land, the price of industrial land is obviously very low. The land prices of the main cities in China during 2001-2009(Figure 3) show the huge difference in four kinds of lands. In 2001, the price of industrial land is only 461yuan/sq, when integrated land and residential land are 1028yuan/sq and 961yuan/sq respectively, both twice higher than that of industrial land. Still the price for commercial land reached 1650yuan/sq. In the following years, the differences became widen. When it was come to 2009, the price of integrated, residential and commercial land were all more than tripled that of industrial land, that of commercial land almost reached 8 times. During 2005 to 2009, the real estate industry boomed in China, the price of land skyrocketed, became one of the backbones of the fiscal revenue. However, the price of industrial land increased only 127yuan/sq in this period. here are still several problems in the implementation process, which blocks further improvement of industrial land performance.

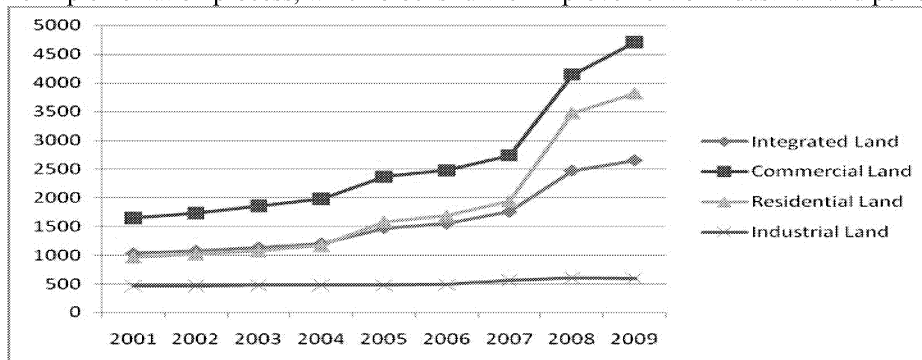


Figure 3 Land prices of main cities in China during 2005-2009

Data sources: China land price information dynamic publishing platform

² Notice on Strengthening Reform to Strict Land Management by State Council in 2004

³ Circular of the State Council on Intensifying the Land Control in 2006

PROBLEMS OF CURRENT CONFIGURATION IN INDUSTRIAL LAND

Selection among the three transferring modes

The process of competition varies among the three allocation methods, so do the system performance. In bid invitation, the transaction costs is higher, more than 2 participants are needed, with more complicated evaluation criteria, which is conducive for the government to realize guidance of industrialization and consideration of environmental factors, but the economic benefits maybe not so sound. Large number of participants in the auction, the implementation of the open bidding on the spot, can lead to higher revenue for the government, but also may lead to excessive competition ended with inflated prices. Since Listing doesn't set a limited number of participants, there is maybe an "election business" orientation, so the system performance is low. However there is no certain standard on the choice of the three modes. Listing, with a process of easy to achieve target-orientation, has become a major land transfer mode in many areas. From the national point of view (Table 1), 154553 plots of land, 324751.54 sq in total are transferred during 2004-2007, among which 95.45% of the plots and 95.86% of the area are transferred through grant by negotiation. In 2007, 135628.56 sq of industrial land are transferred, grant by negotiation declines to 73.98%, listing rises to 24.72%, those two add together to more than 98%. When it came to 2008, the area of industrial land transferred through grant by negotiation further declined to 17.31%, at the same time those of listing skyrocketed to 79.31%, whereas those of bid invitation and auction were only 1.24% and 2.14% respectively. Obviously, listing takes superior advantage over other modes.

Table 1 Areas of industrial lands transferred in different modes during 2004-2008

Year	2004		2005		2006		2007		2008	
	Area (sq)	percentage (%)	Area (sq)	percentage (%)	Area (sq)	percentage (%)	Area (sq)	percentage (%)	Area (sq)	percentage (%)
Grant by Negotiation	85347.91	95.05	86202.54	95.24	139763.23	96.75	100337.00	73.98	14959.96	17.31
Bid Invitation	121.99	0.14	180.10	0.20	118.95	0.08	441.49	0.33	1068.91	1.24
Auction	913.07	1.02	1073.91	1.19	895.72	0.62	1329.06	0.98	1851.24	2.14
Listing	3405.15	3.79	3055.26	3.38	3673.72	2.54	33521.00	24.72	68533.79	79.31
In Total	89788.11	100.00	90511.81	100.00	144451.62	100.00	135628.56	100.00	86413.90	100.00

Data sources: China land and resources statistical year book (2005-2009).

The big changes in the amount of plots transferred through each mode, also lead to a diversification in the sell-income. Before the policy of bid invitation, auction and listing with reserve price came into full realization, the income of plots transferred through grant by negotiation was the major part. The turnover from grant by negotiation took more than 85% of the total amount, and the ratio rose to near 95% in 2006. From 2007 on, rapid growth occurs to the revenue from listing when that of grant by negotiation saw a dramatic falls. The total income from transferring industrial plots reached 17.42 billion, listing taken 83.06% compared to the 13.31% of grant by negotiation. The percentage of auction with bid invitation never reached 5% in these years, the highest was 3.63% in 2008 (Figure 4).

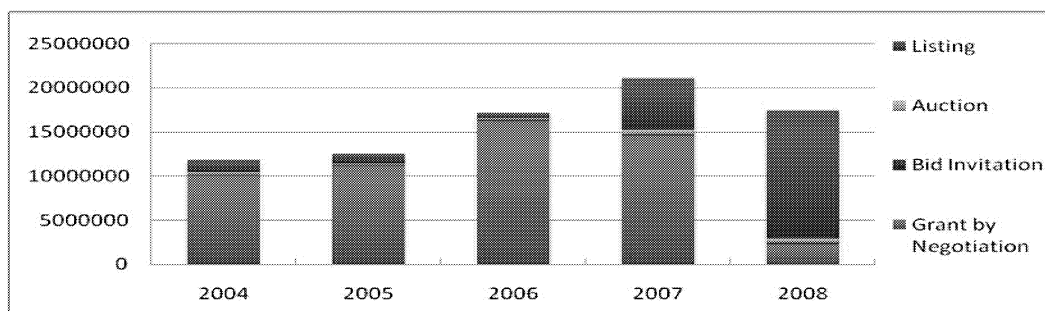


Figure 4 Income of industrial lands transferred in different modes during 2004-2008

Data sources: China land and resources statistical year book (2005-2009).

The dominant position of listing is exhibited absolutely more obvious in south-eastern coastal cities such as Ningbo. Taking Zhenhai district in Ningbo as an example, 15 plots of industrial land was transferred in 2010, all of which were in listing. Auction is the most effective mode of exerting market function, bid invitation set a higher criterion for land using. Whereas the low price in listing limits the political performance, offset the political effect, and hinder the market mechanism on allocation of industrial land.

Potential subsidies / transfer less than the reserve price

State Council on strictly enforcing land administration clearly states, the lowest standard of industrial land shall not be less than the cost of land acquisition, land development costs and the required pre-charge and related expenses, and requires the establishment of a unified public system of reserve price. The reserve price sets the threshold for local governments and the documents clearly prohibit the secret subsidies to industrial land. However, the implementation of bid invitation, auction and listing can not end the excessive competition among local governments, resulting in low transferring price which goes against the original goal of the policies. Some cities transferred lands with a price lower than the reserve price or even "zero", to appeal to potential investment.

In 2010, Kunming, Yunnan province was distributed with a quota of introducing 15 state-owned enterprises. The government officials in charge stated that the value-added tax actually paid can be fully returned in 3 years and half returned in the following 4 years through corresponding financial reward, which implied that the state-owned enterprises can get the land with a price equal to the developing costs or even "zero"(Lan, 2010). Some cities also offset the reserve price through giving back the taxes, the consequences is an astonishing low price to acquire industrial lands.

Inefficiency of industrial land

Promoting the land use intensity is definitely one of the goals of land policies. But statistics show that the intensity is not apparently improved after the policy of bid invitation, auction and listing with reserve price, despite of the indexes set for industrial project construction to further improved the measurement of investment intensity, FAR and included other indexes such as index-green coverage rate. However due to the lack of real control in the follow-up mechanisms for monitoring and maintenance, the effect of promoting intensive use of industrial land is not significant. Chongqing once demanded that in the industrial parks of the its 9 main districts, the investment intensity mustn't lower than 5 billion/sq, the output must not be less than 10 billion. The result of evaluation on land intensive utilization from the ministry of land and resources show that the factual input is less than half of the standard. The same situation also happened to other cities such as Haian, Jiangsu Province.

The most inefficient use is reflected by industrial land vacancy. Nanchang County, Jiangxi Province in 2010 started a big clean-up campaign, 483 ha were found vacant. A 59.3 h industrial plot in Luoyuan, Fujian Province was transferred in 2004, but no sign of construction could be seen till 2010.

Ministry of Land and Resources and Ministry of Housing and Urban-rural Development on further strengthen regulation of real estate construction and management of land in 2010 clearly states that land developers who laid lands idle duo to business reasons can not participate in acquiring plots. But this new policy is widely considered in lack of effectiveness, inefficient use of land and land-vacant problem remains to be further addressed. We will discuss some potential and feasible measures in the following part.

CONCLUSION AND PROSPECTS

The last half century witnesses the significant industrialization process in China, while land policy has been through obvious evolution to cater to the development strategy. During all those years, industrial land plays a crucial role in boosting the fast economic growth. In the early years, large areas of industrial land were provided free to build factories, though many of them later became deserted. Since late 1980s, the importance of industrial land and its value have been more and more recognized. The central government tries to realize the value of industrial land through policy control, but local governments treat cheap industrial land as advantage in competing for investment. Now the market of industrial land is still underdeveloped and shows the features of buyer's market, so several measures are proposed to improve the situation.

Government can cooperate with industrial real estate companies, not in exchange of cheap land, but through potential economic benefit. Industrial real estate companies, as an independent party, can rely on its brand of

service, design and other elements to collaborate with the government to attract businesses to enter, forming an active regional industrial atmosphere while realizing urban industrial structure adjustment and intense land use. Guiyang Lanwa Technology Industry Base in Guizhou Province is a good example of the cooperation between government and developer. The base built in 2006, the total land area is 11.32k m², total floor area is 15 k m² with overall investment of 160 million RMB. Now it has successfully attracted 12 international brands to enter including Sumsung and Nokia, largely contributing to the regional development. Also the average floor area ratio of 1.33 improves land intensity.

In addition, official platinum can be founded to organize the general investment attraction and coordinate the competition between different development zones. There are already some websites set mainly concentrate on investment attraction for industrial land (such www.qalex.com and www.industrycome.com). But they are diversified and hard to regulate. So, authorized platinum can be set to regulate the storage and transition, also as basis of supervising industrial land use and balancing regional industry development.

What's more, strict regulation and clean-up campaign must be further executed. In 2007 and 2008, big clean-up activities organized to clear illegal land enhanced the local government's conception of legal land use, but still illegal lands remain in many provinces. So such action can be taken to strengthen the effect, and further consolidate the concept.

Policies for industrial land allocation should not simply concentrate on change of transferring modes, but should more concerned about local governments' consideration of industrial "premium effect", performance evaluation and other factors. Based on a comprehensive understanding of the country's industrial land transfer and utilization condition, we can change the passive compliance to positive implementation, in order to gradually overcome the embarrassing state of "policies above, measures to counter below", truly realizing intensive and efficient use of industrial land.

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