

Adapting Land Taxation to Chinese Institutions

1. Background

China's current tax system was formed after the general tax reform in 1994, which established the Tax Sharing System between the central and provincial governments. There are 6 types of taxes directly about land and buildings, which are urban and township land use tax, farm land occupation tax, land appreciation tax, house property tax, deed tax and business tax in China. In order to promote the rational use of urban land and adjust the urban land income differential, Chinese government introduced urban and township land use tax, which levied on the town land use area in accordance with the fixed rate under specific circumstances. Those occupy farm land for building construction or for other non-farm purposes should pay farm land occupation tax, which is levied on land area in accordance with the fixed rate under specific circumstances. The land appreciation tax is based on the appreciation amount from the transfer of land use right and house property, which equals to the balance of proceeds received by the taxpayer on the transfer of land use right and house property after deducting the sum of deductible items as prescribed. The Chinese public land leasing system is designed to facilitate two kinds of transaction involving land use rights: one is from the state to individuals or firms, which is non-taxed; and another is between land users, which are taxed. House property tax is just levied on house property in cities, county capitals, townships, and industrial and mining districts. The taxpayers of deed tax, which levied on the transactional price, are those who are the transferees of house property or land use right transferred. Taxpayers who transfer land use rights, sell buildings and other attachments shall pay business tax in China. The payable tax shall be computed according to the turnover and the prescribed tax rates (5%). In addition, stamp tax is an indirect tax on land and buildings which levied on land and buildings transfer contract.

These land and buildings taxes were classified as local taxes, which are collected and administered by local tax bureaus. Since 1994, land and buildings taxes should have been a significant part of local government revenue. However, the land and buildings taxes revenue has been little compared with other local revenue, and the proportion of land and buildings taxes in local tax revenue has been low. According to the statistical data of State Administration of Tax, we calculate the proportion of three important land and buildings taxes (urban and township land use tax, house property tax, and land appreciation tax) revenue together in the total local tax revenue, which are in 7.24% - 9.08% from 1994 to 2007. Due to the relatively smaller revenue of the land occupation tax, deed tax and business tax levied on land and buildings than above three taxes, we can not find complete statistical data about those taxes. Therefore, in practice the direct taxation of land and buildings is not the main revenue at the local fiscal. At the same time, potential fiscal insufficiency is a problem of China's current local government revenue system. Ding(2005) pointed out that more than one-third of county-level governments

have serious budget problems and over half of the local governments directly below the provincial level have budgets that merely cover the basic operations of public entities.

Several unique features make China's land and buildings tax system complicated and inefficient. First, due to typical urban-rural dual economic, using urban land and rural land need to pay taxes respectively in the form of urban and township land use tax and farm land occupation tax. The urban and township land use tax payable per unit is differentiated with different ranges for different regions, i.e., the annual amount of tax payable per square meter is: 0.5-10 yuan for large cities, 0.4-8 yuan for medium-size cities, 0.3-6 yuan for small cities, or 0.2-4 yuan for mining districts. Different ranges of the farm land occupation tax per unit are specified for different regions in consideration of the average size of farmland occupied per person and the local economic situation. The annual amount of tax payable per square meter is: taking county as the administrative region for calculation (hereinafter the same), 2-10 yuan for county with one mu or less of farmland per person; 1.6-8 Yuan for county with 1-2 mu farmland per person; 1.3-6.5 yuan for county with 2-3 mu farmland per person; and 1-5 yuan for county with more than 3 mu farmland per person.

Second, urban land in China is owned by the state and thus property owners only have the use right of land. Because of the separation of land ownership and property ownership, the property owner need to pay taxes respectively for both the property they own and the land they lease from the state. The house property tax is levied on property's acquisition value with a rate of 1.2 percent. The urban and township land use tax is a charge on using the land that belongs to the state, with the tax rate being determined by each provincial government and varying among cities.

Third, home buyers pay several taxes and fees during housing transactions but little during possession. As noted above, home buyers need to pay house property tax, deed tax, business tax when they buy the house, and pay urban and township land use tax when they hold the house. Therefore, home owners pay high transaction costs, but very low holding costs. At the same time, China's transferring land use rights system is complex. They encourage speculation in housing markets and lead to inefficient use of residential property. Therefore it causes a high housing vacancy rate. For instance, in Beijing 17 percent of residential house purchasing is aimed at investment, in which 48 percent is left vacant waiting for rising of house value, estimated by Chinese Ministry of Construction in 2005. Speculation not only causes a big waste of resources but also pushes up housing prices, which in turn harms ordinary urban residents and leads to serious imbalance of living conditions.

Fourth, land and improvement tax system actually, introduced in 1980's and 1990's, has not properly implemented due to various reasons. Because of the real estate market downturn in nineties of the last century, taxes that should have been levied have not been

collected to encourage the real estate market. At the same time, land appreciation tax, which tax burden is difficult to pass on to consumers, affects the interests of developer. Developer tried to influence the political policy decisions. Neither the tax bureau nor local governments turns a blind eye to unpaid tax balances. What's more, for a long time, land appreciation tax has been prepaid by taxpayer, which results in less revenue in the clearing process, received a large number of tax leakage.

These drawbacks and the need to finance large-scale provisions of urban infrastructure motivate land and buildings tax research further. In fact, either theoretical research or practical experience in many countries has been proved that the land taxation system is a very benign taxation system. In the section 2, we introduce the theory of land taxation. Section 3 is concerned with the land taxation experience of American and Hong Kong. Section 4 gives some land taxation policy recommendation to Chinese institution. Section 5 summarizes the conclusions.

2. Theory of land taxation

Economic theory shows that on the one hand, taxing land is benign in terms of economic efficiency, and on the other hand, it is ease of administration, revenue stability and adequacy from fiscal considerations.

Due to the excess burden of taxation, most taxes distort economic decisions. However, this does not apply to land taxation. Under the assumption of perfect markets, a tax on any good with perfectly inelastic supply and non-zero elasticity of demand will be born entirely by the supplier of the good; it cannot be shifted to its user because an increase in the price would lead to an excess supply of the good; in a competitive market the demand for units that are offered at a price above the market price will drop to zero. Given that the supply of land is fixed, the tax does not have any substitution effect and therefore no deadweight loss, which makes it an ideal tax from an efficiency point of view. The only direct effect of taxing land on prices is to lower the market price of land. On the contrary, taxing buildings is harmful. The main difference between land and buildings lies in the fact that the former is neither produced nor reproducible, while buildings can be (re)produced if the incentive to do so is strong enough. In addition, building will depreciate, and ultimately become obsolete. The supply of land is inelastic, while the supply of buildings is elastic. If buildings are taxed, people are dissuaded from constructive activities due to deadweight loss. Nobel Prize winner William Vickrey believed that "removing almost all business taxes, including property taxes on improvements, excepting only taxes reflecting the marginal social cost of public services rendered to specific activities, and replacing them with taxes on site values, would substantially improve the economic efficiency of the jurisdiction."

Even though a tax on land does not have any distorting substitution effects, it can nevertheless have interesting income effects in a general equilibrium setting. As the introduction of a tax on land will decrease the sale value of land, it will also decrease the total value of assets that are available for investment. Feldstein (1977) and Eckart (1983) show that this will lead to an increase in the demand for capital, and therefore to higher investment and lower interest rates. In addition, the tax decreases the sale value of the land without affecting its riskiness relative to the riskiness of capital.

While a tax on land is neutral when markets are perfect, it can help to overcome inefficiencies in imperfect markets by reducing adverse effects of land speculation. If a sufficient percentage of a parcel's economic rent must be paid annually to the community regardless of how or whether the land is being used, its owner will have a compelling incentive to put that land to its optimum use or to sell it to someone who will, instead of holding it for speculation or (as is common in some Latin American countries, for example) merely for reasons of prestige. By "squeezing the speculative water" out of land prices, the policy makes land more readily available to those who could not otherwise afford it, and the purchase price is less apt to absorb funds needed for development, or to weigh the buyer down with a ponderous load of debt. There would emerge a more compact and rational pattern of development, with a wholesome reduction in the number of vacant and underused lots in urban centers, and a countryside not eroded by suburban sprawl. This compact pattern of development would cut the cost of public services. Insofar as the public capture of economic rent permitted the abolition or reduction of taxes on the returns to labor and capital, that much income would be freed up to raise living standards and / or for productive capital investment. Brown (1927) pointed out that the participants in the market for land may have different beliefs about the future development of the value of land. Those who expect land to appreciate most in value have an incentive to bid the highest price for it, and to leave the land undeveloped, a tax on land will lead to a larger reduction in the return to land for those who want to leave the land undeveloped than for those who want to develop the land earlier, and therefore make more land available for development. This efficiency improvement can be understood as a reduction in the negative effects of the "winner's curse". Milgrom and Weber(1982)introduced this term to describe their observation that in a world with different beliefs, the highest bid for a good is usually offered by the person who made the biggest upward error in assessing the good, and who subsequently incurs a loss after acquiring it. As a tax on land disproportionately reduces the return for people who most over appraise land, it will tend to put more land into the hands of people who appraise the land more accurately.

Land taxation also has some attractions as a local revenue base since it is imposed on immobile assets and therefore is difficult to avoid. Efficient local public services (or efficiently subsidized private activities with distance-related benefits) raise surrounding

land rents. According the benefit principle, tax obligations should be based on benefits receivable from the enjoyment of local public services. When compared with the other revenue collected, the administration and compliance cost of a land taxation is low. Also, land taxation is an example of a stable tax source.

From Classical liberalist's point of view, all people have a right to themselves and to the proceeds of their labor, and they have equal claims to the value of natural opportunities. In a world where the supply of natural opportunities is limited, this assertion requires the public collection of the total rent that natural opportunities provide.

3. Practice and Experience of Land Taxation

Several countries, such as Australia, Canada, the United States of American and Singapore, have implemented some form of land taxation since the late nineteenth century. Also, in China, Hong Kong is an example of the successful implementation of a high land tax. We were unable to find many serious empirical study regarding the effects of the land taxation in any of these countries exception of U.S... More work has been done with respect to site value taxation in the United States. In U.S., currently only the idealistically inspired corporations of Fairhope, Alabama, and Arden, Delaware, levy a tax on land but no tax on structures (land only tax), while the state of Pennsylvania allows its cities to levy taxes at high rate on land and low rate on structures(two-rate taxes).A comparison of the economic development of Fairhope with the interspersed plots of flat-taxed property would be interesting, but we were unable to find any empirical study of the effects of the single tax in Arden and Fairhope.

However, several studies have been undertaken to determine the effects of the two-rate tax on the development of Pennsylvania's cities. In 1910, many of low-tax lots in Pennsylvania cities remained unimproved in the hands of land speculators. To reduce the incentive for land speculation, Pittsburgh started taxing land and structures at different rates in 1913.Florenz Plassmann and Nicolaus Tideman(2000) provided strong empirical evidence that shifting the property tax from buildings to land leads to increased construction activity. They looked at building permits in 15 Pennsylvania cities that had used two-rate taxes for more than one year, and at about 200 similar Pennsylvania municipalities that had maintained equal rates of taxation on land and buildings. They examined separately the number of permits and the value per permit for whole structures and for additions or alterations, for residential and for commercial or industrial structures.

They found that two-rate taxation made a difference in all categories except whole commercial or industrial structures. The way they explained the absence of an effect on whole commercial or industrial structures is that most cities, whether they have two-rate taxes or not, use the LERTA program to grant tax abatements to those who build whole commercial and industrial structures. Such tax abatements are economically equivalent to

two-rate taxation, except that they apply to only a fraction of the potential sources of development for a city.

When they combined the effects of two-rate taxes on all categories of property, they found that for each one-percentage point difference in the effective tax rates on land and buildings, construction each year was greater by an average of 15%. Their 90%-confidence interval on the estimate was 8% to 23%. This is the kind of impact that Philadelphia can expect if it shifts some of its property tax from improvements to land.

Hong Kong is perhaps the best modern example of the successful implementation of a high Land taxation. The majority of land in Hong Kong is publicly owned and distributed to developers via long-term leases. The Hong Kong government generates more than 35% of its revenue from land taxes. Because of this, they can keep their other taxes rates low or non-existent and still generate a budget surplus. The tax is charged on the owner of any land or buildings in Hong Kong at the standard rate(15%)on the net assessable value of such land or buildings. The assessment system is basically annual value system. Even though Hong Kong depart from the method of land value taxation that George advocated, it has accomplished to a significant degree the capture of land values for the public, along with the reduction of tax burdens upon industry – which together constitute George’s key policy proposal.

4. Policy Recommendation

China is processing a significant industrialization and urbanization. Chinese land values are rising. The society as a whole, as represented by the government, should be the beneficiary of such increases in land values. Meanwhile, local public revenue has been significantly deficient. Local governments need to increase their revenue for better provision of public service. According to theory analysis and other countries’ experience, China should increase tax on land and decrease tax on other commodities, such as buildings. It can “squeeze the speculative water” out of land rent and building price to let more people have room to live and improve the efficiency of land use, and does not impose the economic burden that would be generated by an alternate means of raising the same revenue by taxing other things. As well as it is ease of finance for local government. Therefore, we propose the following policy recommendations.

In the first place, abolish the deed tax and business tax levied on land use right and buildings transaction and streamline the existing land and buildings tax system. According to theory, the ideal taxation is taxing land only, and do not tax other commodities. In addition, as noted above, there is an obvious double taxation between the existing deed tax, house property tax, urban and township land use tax, land appreciation tax, business tax about land and buildings transaction, and stamp tax about land and buildings transaction contracts. For example, from the tax base, the transfer contracts of

land use right and house property right are levied on both deed tax and stamp tax, the transfer activity is levied on business tax; when owner gets the land use right and house property, the owner should pay urban and township land use tax and house property tax; at the same time, if the value of land and building appreciates, the owner should pay the land appreciation tax.

In the second place, appropriately adjust tax rates of urban and township land use tax and farm land occupation tax, and change tax on land area to land rental value, which can increase the holding cost and play the advantages of the land taxation. With local public service, the ability to benefit from public spending depends on being close to the place where the spending occurs. This increases demand for land in the vicinity of places where public services are provided, raising land rents. Private production activities with marginal costs less than average costs share with public services the quality of requiring a subsidy if the efficiency of pricing at marginal cost is to be achieved. If in addition, the activity is one that, because of transportation cost or some other consideration, yields a lower benefit to those who are more distant from it, then that activity will also raise rents in the vicinity of the place where it is conducted. Tideman(1994) pointed out “in recent years, economists have noted that for activities with distance-related benefits, there are interesting conditions under which the presence of an activity, whether it is a public service or a private production activity with marginal cost less than average cost, raises rent by enough to pay the difference between total cost and the sum of marginal costs at the efficient level of output.” According to China's current system of tax administration, the central government determines the scope of the tax rate; local governments freely choose the local tax rates depending on their total cost and the sum of marginal costs at the efficient level of output. Taxes on land according to area discourage the use of marginal land. Land can be taxed according to estimates of its sale value, as occurs under the property tax of the U.S. and other countries. It can be taxed according to estimates of its rental value, as occurs under the property tax of Hong Kong. Under current China's public land lease system, urban and township land use tax and farm land occupation tax can be taxed on the land rental value.

Thirdly, strengthen tax collection and administration, especially on the land appreciation tax and house property tax, to avoid previous tax evasion problems. As noted above, in 1994, China formed the relevant policies about taxing on land and buildings. In fact, the impact of implementation is far away the design purpose. State Administration of Taxation required local bureaus to clear the land appreciation tax which were unpaid. Now we have not seen significant results. We propose to build complete property and market data and strong legal support.

5. Conclusion

Taxes on the sale value or the rental value of land are efficient in a world of perfect information because the amount of the tax that is due for any site is independent of any action that the owner of the site might take. Chinese government preliminarily introduced some tax on land and building in last century. However, because of some unique characters, the land taxation in China almost did not play its own role. In conditions of imperfect information, these taxes can discourage land and building speculation by making land and building unattractive to persons with extreme beliefs about the future value of land and building. Thus, making land use is more efficient. At the same time, perfect land taxation is stable and adequate revenue for local government. The advantages of land taxation in theory have also been proven in different countries and regions. Therefore, Chinese institution should actively learn from the lessons which the current land and building taxation are invalid, study the successful experiences of other countries, by reducing the double taxation, improving the tax base and tax rates, well planning and carrying out the land taxation system to better promote economic development.

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Attached Table: 1994-2007 Tax Revenue Statistics

Year	Total tax Revenue (in billion yuan)	Central Government Tax Revenue (in billion yuan)	Local Government Tax Revenue (in billion yuan)	Urban and Township Land Use Tax Revenue	Land Appreciation Tax Revenue (in billion yuan)	House Property Tax Revenue (in billion yuan)	3 Taxes* Revenue in Proportion to Local Tax Revenue (%)
1994	507.08			3.25	.	6.03	
1995	597.37	437.69	159.68	3.36	.03	8.17	7.24
1996	705.06	495.66	209.40	3.94	.11	10.22	6.81
1997	822.56	562.82	259.73	4.40	.25	12.39	6.56
1998	909.30	614.22	295.08	5.42	.43	15.98	7.40
1999	1,031.50	700.29	331.21	5.91	.68	18.35	7.53
2000	1,266.58	893.21	373.37	6.49	.84	20.96	7.58
2001	1,516.55	1,019.43	471.63	6.62	1.03	22.86	6.47
2002	1,699.66	1,132.43	530.87	7.68	2.05	28.24	7.15
2003	2,046.61	1,368.82	630.36	9.16	3.73	32.39	7.18
2004	2,571.80	1,785.43	786.37	10.62	7.51	36.63	6.96
2005	3,086.58	2,133.45	953.13	13.73	14.00	43.60	7.48
2006	3,763.63	2,618.80	1,144.83	17.69	23.13	51.52	8.07
2007	4,944.93	3,442.26	1,502.67	38.55	40.31	57.51	9.08

Source: State Administration of Taxation (SAT) Statistics

*: Urban and Township Land Use Tax, Land Appreciation Tax, House Property Tax