

Intergovernmental fiscal relations: a case for division of tax power

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In handling the fiscal relations between the central and local governments, especially in relation to taxation, the method of revenue-sharing has been widely adopted. Findings of this study show that when the intergovernmental division of administrative authority and spending responsibility is relatively stable, tax-sharing is superior to revenue-sharing, and that tax-sharing should take precedent over revenue-sharing in future tax and fiscal reforms. Reform initiatives should include measures to significantly reduce value-added tax (VAT) rates and classify it as central tax, to collect retail sales tax in commodity consumption as a local tax and to cancel the business tax. Under this system, the main types of taxes levied by the central government include VAT, corporate income tax and consumption tax, personal income tax is imposed by provincial governments, retail sales tax by county governments.

Keywords: tax reform, tax-sharing system, retail sales tax

1. The theoretical basis and principles for tax-sharing

There are generally three types of fiscal relations between the central and local governments: tax-sharing, revenue-sharing and transfer payment. So, which model is the best? To answer this question, we need to examine related theories and relevant facts.

1.1. Trade-offs between tax-sharing and revenue-sharing: an contractarian analysis

There are four kinds of contracts for the market economy from the perspective of contract economics: wage contract, fixed price contract, revenue-sharing contract and power-sharing contract. Correspondingly, there are also four types of contracts for intergovernmental tax power division: collection service contract, fixed contract, revenue-sharing contract, and tax-sharing contract. We also understand from past research that for managing intergovernmental fiscal relations collection service contract and fixed contract are inefficient given the characteristics of taxes and their function as an incentive. Between the two remaining options—tax-sharing and revenue-sharing—which one is better?

The merit of tax-sharing is it allows for clear boundary demarcation among different levels of government in terms of power, which conforms to the economics principle that marginal effort in tax collection should equal its marginal benefit. Tax collection efforts here include not only those

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made by tax administration, but also those by the government in maintaining market operation, promoting economic development and providing good public services. Rational tax-sharing, for instance, levying VAT and corporate income tax at the central level and property tax at the local level, can help the central government maintain a unified market and regulate macro-economic operation and local government provide public services. This constitutes an incentive for the central government and local governments to perform their proper function.

In contract economics terms, revenue-sharing is inefficient when there are no joint efforts by or shared risk between the parties involved. In terms of tax-revenue-sharing, in the presence of joint efforts in tax collection and tax base cultivation and tax revenue volatility, the ratio for both sides of the contract should be decided according to their relative efforts and risks. In this case, the tax revenue-sharing is sensible.

Do the central government and local governments in fact make joint efforts and share risks? We believe that regardless of tax types, tax administration authority should form a unified system, such that there should be no joint efforts in tax administration. While there may be joint efforts toward the cultivation of tax base and shared risk given tax revenue volatility (such as the adverse impact of decline in revenue growth on government activities), this does not make tax-revenue-sharing necessary. One reason is there are different ways for adjusting intergovernmental fiscal relations, including transfer payment (matching transfer payment is a type of revenue-sharing contract) or division of spending responsibility. The other is that even in cases of shared efforts and risks, it is difficult to decide how to share the revenue.

We conclude, therefore, that under the afore-mentioned circumstance, tax-sharing is superior to revenue-sharing. The first should be given lexical priority over the latter in design the reform.

1.2. Tax-sharing: an analysis of tax decentralization theory

How is tax shared under a tax-sharing contract? There are two competing theories given by two different theoretical frameworks.

The first is the tradition of fiscal federalism, or rather traditional fiscal decentralization theory (Musgrave, 1959; Oates, 1972). Under such a framework, the optimum tax power distribution has a close bearing on the fiscal functions of governments at all levels. The fiscal functions are classified into three types: resources allocation, income redistribution and economic development. As there is great spillover effect in jurisdiction area for income redistribution and economic development, both of these two functions should be performed by the central government, while the local government is primarily responsible for resource allocation. Based on such a classification, personal income tax and corporate income tax can exert great impact on income distribution, economic growth and economic stability, which is the reason why the power to levy these taxes should lie with the central government. The size of tax base for building taxes is usually closely related to the public services provided by local government and it embodies a beneficial nature, thus the tax power is due to be centralized by local government. In addition, local tax ought to be up to the following standards: first, local government should levy tax in terms of noncurrent tax or property in case of tax competition and tax distortion; second, the tax base in each area should be distributed evenly lest horizontal fiscal imbalance appear; third, local

government should levy tax on the tax base with relatively stable earnings, in order to ensure the government expenditure plan are enacted (Ambrosiano & Bordignon, 2006).

The second framework is public choice analysis (Brennan & Buchanan, 1980), within which the government does not aim to maximize social welfare, as a Leviathan¹, might, but instead use taxes as a tool for maximizing income from the private sector. Politicians and bureaucrats seek thereby to maximize their power in making spending decisions. To this end, public choice theory emphasizes the active role local governments play in intergovernmental fiscal relations and treats this as one of the forces that shape the design of the tax system and the budget size. Under this theory, the local government should levy tax on dynamic factors, which will help check the power of the Leviathan. Therefore, commodity tax and income tax are the main types of local taxes.

Of these two analytical frameworks, fiscal federalism enjoys greater support. There is much criticism on the Leviathan model: on one hand, governments of all countries do not exert monopoly to such a degree as the model assumes; on the other hand, entrusting the levying of taxes based on dynamic base with local governments could lead to severe resource allocation distortion. In fact, there have been no empirical findings that can conclusively support the Leviathan government hypothesis (Edwards & Keen, 1996).

In summary, though they lead to different conclusions, both theories agree on some key points: tax distortion should be avoided in tax power division. Therefore, taxes that can help maintain a unified market and facilitate macroeconomic regulation should be classified as central tax, while those related to the public services enjoyed directly by residents in each jurisdiction (benefit tax) should be local taxes.

According to such categorization criteria, VAT and corporate income tax should be central taxes. The reason why VAT should not be a local tax is that since VAT collection is based on reimbursement for receipts and the management of receipts involves the collection, comparison and audit of information, this is best done under a uniform and unified system nationwide; But it was a local tax, it could lead to fragmented management or differential tax rates, which can hurt interregional trade. VAT should be levied on the basis of its origin, for it will involve the transfer of tax burden among regions. The reason why corporate income tax cannot be levied as a local tax is that capital mobility and the difference on tax rates among different regions would affect corporations' location decisions and lead to resource allocation distortions. Since corporations operate across regions, the point of collection can be controversial; because it is vulnerable to economic periodical velocity, corporate income tax cannot ensure steady fiscal revenue for governments at a lower level. The argument for real estate tax to be a local tax is that since real estate property is immobile, the differences in the tax rates among regions and in tax management do not significantly affect tax revenue; real estate tax, derived from the appraisal value of real estate which is bound up with the public services provided by the government, can encourage local government to provide quality public services; given its relative stability and predictability, real estate tax would not greatly affect local government budgets.

What we easily forget is that in addition to real estate tax, personal income tax and general

¹ Deriving from Hebrew, "Leviathans" is a name for a monster with tremendous force in "Bible", a symbol of national power without restraints in western politics and economics.

sales tax are the benefit taxes. Personal income tax is related to personal income, whose increase is related to the employment environment created by the government and the public services it provides; general sales tax relates to the level of consumption, which is contingent on the consumption environment, including the quality of food supervision and consumption infrastructure, the planning of business zone included, both of which can be greatly affected by the government.

On the basis the characteristics of each type of tax, Shah (1994) presents a classification of taxes (See Table 1). The results of his analysis show that tariffs, corporate income tax, resource tax, personal income tax, capital gains tax, taxes levied at various stages (VAT belong to the central government, while payroll tax, and any tax levied at single stage only belong to, central or state government. Auto tax and business tax belong to state government, special consumption tax and consumption tax belong to state or county government, and property tax and land tax belong to county government.

Table 1
The main features and general affiliation of some taxes

Categories of taxes	Main features	Affiliation
Tariffs	Levy taxes on international trade	F
Corporate income tax	Its source is highly mobile, but it is a tool to boost stability	F
Resource tax	Tax base is distributed unevenly	F
Personal income tax	Its source is highly mobile, but it is a tool for income redistribution and to boost stability	F
Tax on capital	Have the features for income redistribution	F
Payroll tax	Tax categories with beneficial and earmarked features	F,S
Tax at multiple stages (VAT)	Levy tax on trade between regions, can be coordinated by federal government and a possible tool to boost stability	F
tax at single stage (manufacture, wholesale and retail)	Levy tax on trade between regions	F,S
Special consumption tax		S,L
Tax on cars	Highly regional	S
Business tax	The duties of government at provincial or state level	S
Consumption tax	Taxes of beneficial nature	S,L
Tax on property and land	Closely related to residence	L
Charges on users	Its source is lowly mobile and is charged on the basis of Services with a beneficial nature	F,S,L

Source: Shah(1994), the World Bank. In this table, F embodies federal government; S and L represent state and local governments respectively.

In addition, another method for adjusting the intergovernmental fiscal relations is to reduce the scale of tax to be shared and replace it with tax levied centrally by the central government, which is than followed by large-scale transfer payment to supplement local government revenue. We should also lower our reliance on transfer payment and expand the proportion of other forms of transfer payment, given the top-down model of official appointment and high asymmetry in information among governments.

In summary, as China is a country with vast territory and its numerous economic and social affairs are always assigned to local government whose officials are usually appointed by the superior government, it is not the best option to adjust the mismatch between financial resource and administrative authority of local government through large-scale transfer payment. It is essential to plan to establish a stable local tax system taking into consideration how different taxes affect the behavior of local governments differently.

1.3. Three principles of tax-sharing

To conclude, we believe that China should adhere to the principle of tax-sharing among different levels of government. Considering the fact that China's local government has a strong capability to mobilize resources and lead substantial construction on economic and social affairs within its jurisdiction, three principles should be adhered to for the improving the local tax system.

1.3.1. Tax-sharing should ensure that local governments' regular fiscal needs are met

Many countries address the financial resource allocation problem through large-scale transfer payment. This is more common in Britain and France and other countries with a unitary system. However, although China is also one of these countries, it cannot rely too much on transfer payment to make up local governments' revenue shortfall; it is merely supplemental. Therefore, local governments need to meet their fiscal needs through tax revenues. For capital expenditure promising future return such as metro construction, municipal bonds should be allowed to be issued; fee collection should be allowed to help support the provision of public goods within the community (community management); for trans-regional public projects such as environmental protection, financing can be done through a combination of transfer payment from the central government and fiscal expenditure of local revenue.

1.3.2. Tax-sharing must be conducive to the transformation of economic growth model

Since China's local government has powerful capability to mobilize the administrative and financial resources in its jurisdiction, the macro-economic regulation in some sense comes down to regulating and controlling the behavior of local governments. The establishment of local tax system is closely related to the interests of local government. An unsound local tax system would affect not only fiscal revenue but the behavior of local government. Product tax under the fiscal responsibility contract system, VAT and business tax under tax-sharing system illustrate this well. Other types of taxes, such as resource tax and farmland occupation tax, which are small in scale, have large impact on local economic behaviors. Therefore, the design of the local tax system should aim to boost its positive influence on economic growth model.

1.3.3. Tax-sharing should help avoid perturbing the tax order

Under a market economy, the tax competition among different jurisdictions has both positive and negative influences. Profound lessons have been learned in our country. During 1980s, product tax was the main source of local governmental tax revenue, which encouraged them to

promote enterprises with high value and tax and adopt local trade protectionism against imports, such as is shown in the practice of setting up breweries in each county. Under the current tax power division system, it is commonplace for the government of each region to try to boost tax collection in any way they can. We should be aware that no matter what the local tax system looks like, tax competition among different jurisdictions is inevitable. In setting up local tax system, therefore, efforts should be made to keep destructive tax competition to a minimum while encouraging constructive competition.

2. The main local tax: A dilemma

2.1. The impact of VAT replacement of business tax on local tax revenue

Currently, local tax system in China consists of 14 types of taxes, among which 11 are local taxes and business tax is the primary one. VAT, corporate income tax and personal income tax are shared taxes. VAT revenue is shared between central and local governments at 75:25 ratio, and at 60:40 for corporate income tax and personal income tax. Ranked according to size of contribution, business tax comes in first, followed by corporate income tax, VAT and personal income tax, in that order. Business tax income accounts for 36.3% (Figure 1).

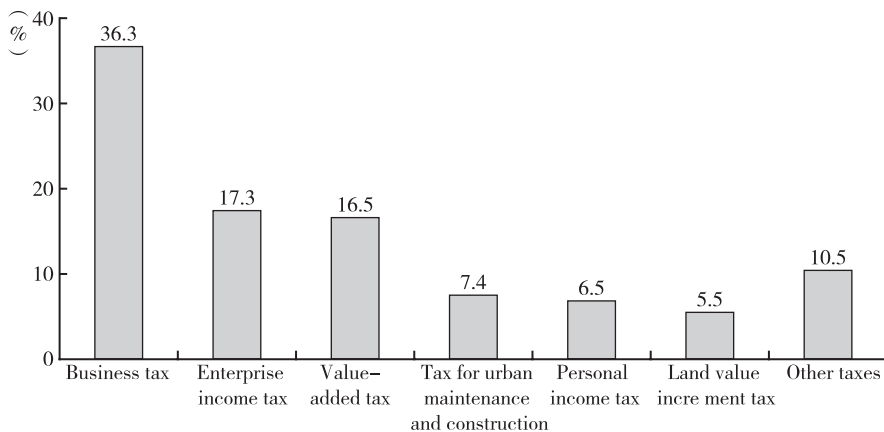


Figure 1. Share of major tax types in China's local tax system (2012)

Source: *China Statistical Yearbook 2013*.

Currently, VAT replacement for business tax is an important tax reform, for local government will face financial shortfall when the business tax is replaced by VAT. A temporary solution is to keep the tax collected from the industries as local government revenue. For example, after VAT replacement for business tax is implemented in the transportation industry, the VAT from it will be levied by State Taxation Bureau, but the revenue will go to the local government, thereby ensuring that it does not face drastic decline in local revenues.

However, this approach is not sustainable. As VAT collection expands and business tax

continues to be phased out, sharing of VAT revenue between the central and local governments by source can be introduced. For instance, VAT revenue from the transportation industry and the service industry will be local tax, while that from the manufacturing industry will be central tax. Given the Chinese local government's administrative and economic resources, this practice is extremely liable to cause vicious vertical competition. For instance, when a newly founded industrial enterprise registers, the local government will "guide" it to add some business items whose tax revenue can be counted as local tax, which would change the nature of business nominally and erode the tax base of central tax. Thus, to maintain the financial power of local government after the replace of business tax by VAT through letting local governments keep the VAT revenue is only a short-term solution.

Then, if we slow down the pace of VAT replacement for business tax, is it feasible to keep business tax as the primary local tax? Since January 1st, 2014, VAT replacement for business tax was implemented in two traditional industries plus seven modern service industries, including: research and development and technical service, information technology service, cultural creativity service, logistics support service, appraisal, rotary and consultation service, tangible non-fixed asset leasing, radio, film and television service. For these industries, they used to contribute less than 10% toward local tax revenue from business tax, and as such replacing their business tax with VAT would have limited impact on the local financial situation. Industries that will implement VAT replacement for business tax all belong to production service industry, and the reform helps them avoid double taxation and promote industrial division. The rest of the industries belong to either consumer services like hotel and restaurant, or industries that are inherently poorly-suited for VAT, such as the finance sector and the construction industry. Therefore, some scholars has called for halting VAT replacement for business tax, which would amount to keeping the current tax-sharing system intact. This can be seen in Figure 2, which shows the business tax for various industries prior to VAT reform.

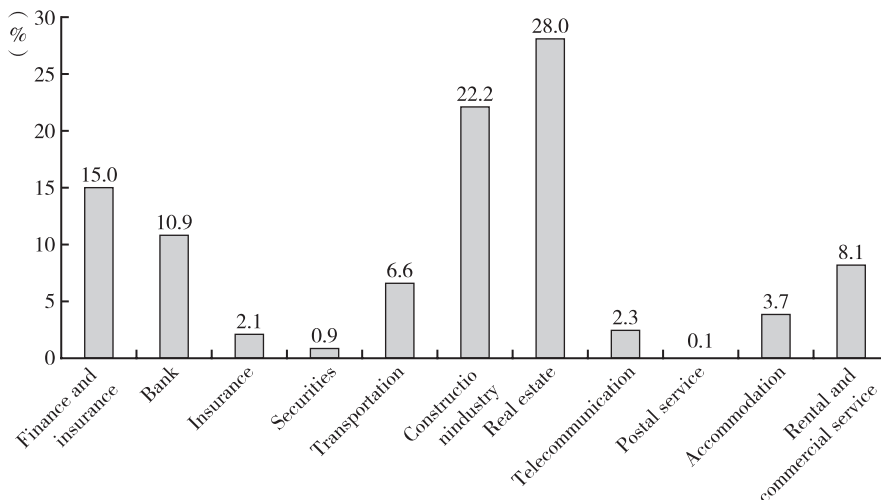


Figure 2. The percentage of business tax before VAT replacement for business tax

Source: *China Taxation Yearbook 2011*.

However, the setup of the current local tax system itself is irrational, especially during a transitional period. First, it is unreasonable to let revenue from corporate income tax be shared among governments. Corporate income tax is levied on mobile capital, excess reliance on it among local governments could easily lead to vicious tax competition; Second, it is ill-advised for local governments to levy business tax on the construction industry and the sales of fixed assets, since business tax revenue from both these industries accounts for almost half of the total business tax revenue, making it an important source of revenue for local governments. As local taxes, both of them tend to give the local government the incentive to boost property investment, which could lead to real estate bubbles. Consequently, tax-sharing system reform should aim to classify corporate income tax as a central tax, and to implement VAT replacement for business tax for the construction industry and fixed assets sales and classifying their VAT as a central tax. However, this could exacerbate the financial difficulties of local governments.

Therefore, VAT reform makes the building of local tax systems rather urgent, in which the crucial point is to identify the type of tax that can serve as the mainstay of local tax revenue.

2.2. The case against making property tax the main source of local tax revenue

Theoretically, property tax has sound reasons to recommend it as a local tax. Because it is calculated according to real estate values based on appraisal, which is closely related to the public services provided by the local government, property tax purports to benefit those who pay it. Classifying it as a local tax encourages local governments to improve public services. In many countries, government at lower levels treats property tax as a main source of tax revenue and discussion is on-going in China on whether to begin levying property tax. But can property tax do for local tax revenue what we may expect of it?

In China, because the property tax rates tend to be too low and exemption is granted to too many entities, property tax is, as it stands now, ill-suited as a main source of local tax revenue. For example, according to the calculation of China Index Academy, the aggregate value of urban residential properties was 50 trillion yuan in 2010. Take for example the pilot program in Shanghai. Assuming that 1/3 of the properties are subject to this tax, and the rate is 1%, total revenue would be 167 billion yuan. This is 1.9 times of the number from 2010, which was 89.4 billion yuan, and accounts for only 4.1%¹ of local tax revenue. In fact, the actually amount will be much lower given the limited amount of resources that local government can commit toward collection and enforcement.

Figure 3 shows the share of property tax revenue as a percentage of the total in different countries. The percentage is fairly high in the US, UK and Canada, while the average for OECD countries is merely 3.287%. The number for China is unlikely to surpass 3% in the short term. Establishing a sound collection mechanism and educating the public about it will take time, and for at least 2-3 decades, property tax won't be ready to be relied upon as the main source of local tax revenue.

¹ <http://industry.soufun.com/Survey/SurveyReport.aspx>.

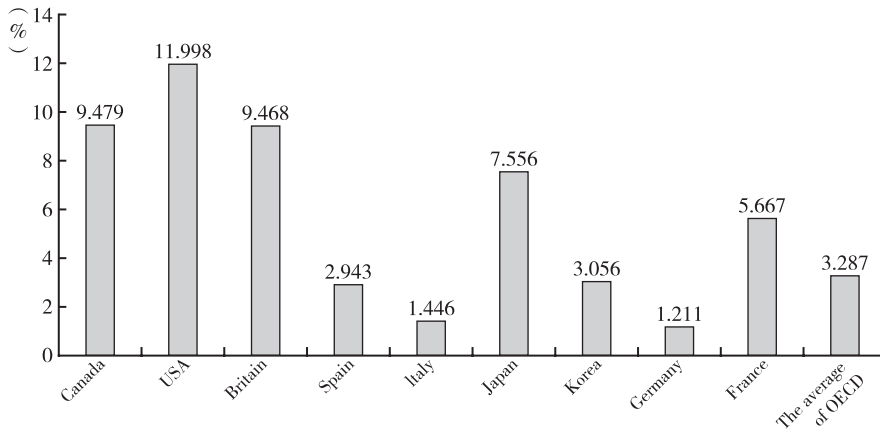


Figure 3. The proportion of real estate tax among tax revenue in 2010

Source: <http://stats.oecd.org>

2.3. The case against making consumption tax a local tax

Some have argued that consumption tax paid by retailers should become a local tax. We disagree with this view.

Theoretically, consumption tax can be divided into two types—selective consumption tax and general consumption tax. The former levies on certain goods, such as cigarettes, alcohol, luxuries, and fuel, while the latter on most types of consumer goods. The two types have different rationales. Selective consumption tax is designed to function as a fine-tuning instrument. For example, taxes on luxury goods are meant to help make taxation more progressive by subjecting those with higher income to heavier tax burdens; taxes on products harmful to health, such as tobacco products, are meant to help to shape people's consumption habits; and taxes on products of resource-intensive and highly polluting industries are meant to help check resource use and pollution. By contrast, general consumption tax is levied on most goods, for purpose of sustaining tax revenue. The latter is based on consumption by the local residents, which is closely related to the consumption infrastructure provided by the local government. Therefore, general consumption tax accrues benefits to the payer. Types of tax that benefit the payer are suited to be local taxes, which is the reason why many countries, including the US, Japan and Canada, classify general consumption tax as a local tax.

To sum up, selective consumption tax and general consumption tax are different in that the former serves to fine-tune, while the latter is used primarily to sustain tax revenue; the former is suitable to be levied in the production process, while variable tax rates suit the former, a uniform tax rate for the latter; the former is best as a central tax, while the latter as a local tax.

Tax on consumption in China is selective consumption tax, and not suited to be a local tax based on the above analysis. First, if selective consumption tax is classified as a local tax, it is closely related to the fiscal revenue of local government and could give the government the incentive to encourage the consumption of local luxuries, which defeats the very purpose for

which selective consumption tax imposed in the first place, namely, to check consumption of selective certain products; secondly, the applicable tax rate of consumption tax is rather high, which encourages the local government to lower tax rate to make the place tax attractive, causing horizontal tax competition; Third, the high applicable selective consumption tax rate causes great differences between the factory price and retail price and tax evasion high attractive. If levied on the retail link, the tax will stimulate manufacturers to sell goods in the form of direct selling, which will trigger more tax evasion, given the fast development of e-commerce. Fourth, the selective consumption tax targets a small number of goods and the cost of levying such tax on production is rather low. So there will be no negative incentives for the local government taking it as a central tax. But if levied on retailing, the tax will no doubt add to the cost for collection and management. Fifth, both selective consumption tax and VAT are levied, which is not an issue at the point of production. However, if levied on retailing, the taxpayers of small scale having been excluded from the management scope of VAT invoice will be also difficult to be incorporated into the management scope of selective consumption tax, which could tempt small business owners to try to increase their profit by evading selective consumption tax and selling goods at artificially low prices. Sixth, even if selective consumption tax is classified as a local tax, it will not totally replace business tax. In China, business tax revenue accounted for 15.6% of the total tax revenue in 2012, while selective consumption tax revenue for half of that, or 7.8% of the total tax revenue.

We conclude, therefore, that the current consumption tax is not best levied at the point of retail and nor should it be a local tax.

In addition, some researchers believe that selective consumption tax, resource tax, and vehicle and vessel tax should be the main sources of local tax revenue. We disagree. There are vast regional differences of the respective tax bases of the first two, such that if treated as local taxes they will lead to vicious horizontal tax competition;¹ with a small size, at less than 1%, vehicle and vessel tax does not offer a steady or adequate source of local tax revenue. The pros and cons of all reform solutions are seen in Table 2. For all of them, the costs exceed the return. None is satisfactory.

Table 2

The comparison among all the solutions for the main local tax or main financial sources

Solutions	Measures	Reform benefits	Reform costs
1. Consumption tax	Levied on retailing, it remains as selective consumption tax	1. The financial shortage of local government caused by VAT reform can be made up; 2. Negative economic incentive is avoided in levying tax on retailing, demonstrating the beneficial nature.	1. The overlap of tax levied on retailing and VAT can easily stimulate tax-escaping; 2. The cost of tax collection and management will be added; 3. The tax will be only half of business tax; 4. If not monopolized, tax on tobacco and wine will be classified as a central tax.

¹ Lessons have been learned in the vicious horizontal tax competition during the mid to late 1980s when the commodity tax was the essential source of local tax revenue. As the price of alcohol products is quite high, local governments at the county level tend to act on protectionist impulse and establish their own breweries, hindering alcohol products from outside from being marketed, causing severe segmentation.

Solutions	Measures	Reform benefits	Reform costs
1. Real estate tax	Levy property tax on real estate	1. Real estate tax is benefit tax; 2. The potential of future tax growth is quite strong; 3. It is favorable for the local government to transfer its functions.	1. The cost of tax collection and management is high; 2. The problem of property rights needs to be clarified; 3. The part of tax exemption is highly controversial.
3. Transfer payment	The financial shortage of local government is solved by the transfer of payment	1. Increase the control force of central government; 2. The financial disparity among regions can be adjusted.	1. It is not favorable to give full play of the active function of central and local government; 2. Under the circumstance of official appointment system and asymmetrical information, transfer payment will lead to resource mismatching.
4. Resource tax and vehicle purchase tax	Resource tax and vehicle purchase tax as a local tax	1. The financial shortage of local government caused by replacing business tax with VAT can be partly made up; 2. The financial disparity between eastern and western part of China can be narrowed.	1. The tax is limited; 2. The tax base distribution is uneven; 3. The tax is not stable.
5. Corporate income tax	From sharing at a ratio of 4 to 6, the enterprise income tax is now totally owned by the local government	1. The tax is abundant; 2. It can stimulate the local government to develop economy.	1. Horizontal economic competition is easily caused; 2. It is not conducive to the formation of a unified market.
7. Business tax	After the reform of "7+ 1" in VAT reform, the next step of reform is ceased	1. The financial resource of local government will not be influenced much.	1. The problem of the original tax-sharing system has not been addressed.

Given these problems, a dilemma in tax-sharing system reform has arisen: in order to stabilize the fiscal relations among different levels of government and alleviate the problems in the current tax-sharing system, China urgently need to identify main types of local tax.

3. The outlook for coordinated VAT and retail sales tax reform

3.1. The tax-sharing reform should begin with commodity tax

The key point of tax-sharing reform is to identify the main types of tax for local governments. According to the fiscal decentralization theory, the tax base of local tax should not be mobile, for such practice would cause vicious tax competition. There are two types of mobile tax base: the first where the product or service is dynamically mobile and the second is where the factors of production are. The taxes levied on liquid products and service are turnover taxes including VAT, business tax and consumption tax, while the taxes levied on mobile factors of production are mainly corporate income tax (a tax levied on capital), personal income tax (a tax levied on capital and labor). According to fiscal decentralization theory, these taxes should not be classified as local taxes. Few countries in the world use types of taxes with mobile tax base as local taxes, and

in many countries the main tax for local tax is property tax.

In China, however, property tax has had a late start and local governments are poorly positioned to raise fund by imposing taxes that purport to benefit the payer. Even if property tax is levied, all things considered the tax rates must be kept low and it must offer exemption to many types of entities, which make it an unreliable as a long-term source of local revenue. We argue that our tax structure will be mainly comprised of commodity tax for central government or local government now. As an indirect tax, it is regressive, and researchers have been arguing for increasing the proportion direct taxes. But this is not going to be easy. Direct taxes consist of corporate income tax, personal income tax and property tax. Currently, the corporate income tax rate is 25%, already quite high, with little room for further increase; property tax is new in China and does not yet offer a satisfactory solution to any problems; there is room for personal income tax, which now contributes only 5% toward total revenue, to grow. But it is now a minor source of tax revenue. The tax base of commodity tax is the turnover of commodities and services and economic development depends primarily on the expansion in trade and consumption, the share of commodity tax revenue will grow.

3.2. The case for making retail sales tax a major local tax

Conventionally, commodity tax is not suitable as a local tax, because differential tax administration and tax rates will influence inter-regional trades and give rise to vicious tax competition; levying tax at the place of destination encourages tax evasion. For instance, when taxpayers buy goods at a lower tax rate in location A and use it in location B; if taxes are levied in the place of production, it would cause taxpayers to be different from tax bearers as well as problems of the dislocation of tax burdens (such as what happens to VAT in China); commodity tax is suitable for uniform management, and regionally segmented management could help increase the costs of management and compliance. (Keen, 2000). Therefore, in most countries the world commodity tax is classified as a central tax and taxes based on some industries and products as local taxes. According to the calculation by Levin (1991) for 30 countries, the average share of the commodity tax revenue that goes to the central government is 83.9%. In China, especially since the beginning of reform and opening-up, classifying commodity tax, VAT and business tax as local taxes encourage the local government to expand production and could for that reason undermine macroeconomic stability and efforts to transform the growth model.

This is, however, not the whole picture of commodity tax. Sales of products can be divided into two parts: production and consumption. Just as its name implies, the products sold at the location where it is produced (steel and machine included) are used for further production and those sold in the consumption process are intended for final consumption. Sellers of products for production are manufacturers, while the buyers are downstream corporations in the production chain. The scale of such sales is dependent on investment demand; sellers of products in the consumption process are retailers, while the buyers are the consumers and the scale of sales is dependent on consumption demand. Due to these differences, the effects of levying tax on products for production and consumption are also different; the former is more liable to cause the dislocation of tax burdens among regions; local government is more likely to influence the

behavior of taxpayers in the place of production. The root cause for vicious tax competition is the ability of the local government to influence taxpayer behavior. As taxpayers are divided into enterprises and individuals, and currently in China, enterprises are far more susceptible than individuals to such influence. If the tax in the consumption process is classified as a local tax, can the fiscal need of the local government be satisfied and the problem of taking as a local tax a type of tax with mobile tax base be solved?

Some researchers have looked into this. We all know that European countries are adopting VAT, which causes some inconsistency between the tax enforcement and the tax rate within EU. In order to address this problem, Keen and Smith (1998), Bird and Gendron (2000) have proposed different solutions for the reform of VAT, aiming to make tax enforcement and tax rate within EU consistent but also differential, with the interests of all countries considered. If we regard EU as a country and the countries in it as local governments, the issue become one about the coordination between the central tax and local tax. They believe there are three types of VAT that can be designed to be important tax for the government at a lower level: first is Viable Integrated VAT (VIVAT); second is Compensating VAT(CVAT); third is Dual VAT (DVAT).

The scheme for VIVAT is to divide the target customers of products into two groups: one is registered merchants and the other is unregistered merchants and families. A nation-wide unified tax rate is applicable for the sales targeted for the former and should be set by the central government; the tax rate targeted for the latter is differential regionally and the corresponding tax revenue belongs to the local government. The design for CVAT is that regional VAT can be levied on the selling by purchasers within the jurisdiction of the subordinate government (registered merchants and families and unregistered merchants included), while the tax levied on the selling by purchasers outside the jurisdiction belongs to central government. The design for DVAT is to levy tax on the same tax base by governments at different levels at a rate they each can select. Whether it is CVAT or VIVAT model, it is required to deduct or return the tax levied on the imports in a certain region in the form of payable tax at some other areas. This entails the introduction of clearing system to ensure that the tax levied on the imports of a certain area can make up the deduction or refund required by other regions.

Bird and Gendron (2000) summarize the merits and demerits of DVAT, CVAT and VIVAT in Table 3.

Table 3
The merits and demerits of DVAT, CVAT and VIVAT

	DVAT	CVAT	VIVAT
Tax rate autonomy	Yes	Partial	Partial
Setting of central tax rate	No	Partial	Partial
Taxation incentives	Partial	?	?
Administrative expense	Low	Relatively high	The highest?
Distinctions of purchasers' category	No	Yes	Yes
Credit track	No	No	Yes
Administrative capability needed	High	Low	High

Source: Bird & Gendron (2000).

Inspired by this idea, we believe VAT can be reformed to balance the interests of the central government and the local government.

3.3. Coordinated reform of VAT and retrain sales tax

The connective reform scheme of VAT and retrain sales tax is: first, continue to levy VAT at a reduced rate and classify it as a central tax; second, after the product enters retail, retail sales tax is levied according to a certain ratio based on commodity price as a local tax;¹ third, continue reform of the business tax until it is phased out completely and fully replaced by VAT across the whole industry; fourth, personal income tax is taken as a local tax and corporate tax as a central tax. The parallel practice of retail sales tax and VAT is similar to the tax system in Canada where commodity tax and service tax are levied as VAT and central tax at a rate of 6% for federal government and sales tax is levied as a local tax at a rate of 5% to 10% for some state governments.

When setting the rate of retail sales tax, its impact on local tax revenue and tax evasion should be taken into account. The author believes that retail sales tax rate should be between 3% and 10%, with 5% being the most appropriate, for it is equal to the business tax rate in service industry and almost the same as the 3% of VAT rate for small businesses. The tax base of retail sales tax is the total retail sales of consumer goods, which was 20716.7 billion yuan in 2012. If the sales tax rate is set at 5%, 1035.835 billion yuan tax can be basically realized. Residents' living burden is bound to be increased if they have to pay sales tax, so the current VAT rate is lowered from 17% to 13%.

What needs to be pointed out is that retail sales tax is highly promising among all types of taxes. The tax source of retail sales tax is consumer consumption whose share in GDP has continued to drop in China over the last two decades for a variety of reasons. Consumer consumption made up only 34.9% of GDP in 2011 in China, compared with 60% and 70% in many other countries. Income increases and the social security system improves, consumer consumption will rise rapidly in the near future, and retail sales tax revenue will rise significantly. In addition, personal income tax has a great potential for growth. Together, retail sales tax and personal income tax will become the main tax for the local government.

The above analysis assumes steady division of administrative authority among different levels

¹ Lv (2010, 2011, 2013) puts forward an outlook of levying retail sales tax as local tax and Lou (2013) comes up with a similar hypothesis named "local sales tax". This tax is levied on the total value of commodities and services in consumption process in nature, and its corresponding English term is usually "Exercise Tax", and "Sales Tax" in U.S.A. Its translation in China is not standardized but varied, like consumption tax, sales tax, business tax, and retail sales tax. Given that there has already been consumption tax and business tax in China whose nature is vastly different than the retail sales tax in this thesis and the title of "sales tax" cannot indicate the taxation process intuitively, thus this tax is expressed in this thesis as "retail sales tax". In Lv's design (2011, 2013), the outlook of VIVAT is borrowed, which means to strip value-added tax from production and sales process, levying value-added tax for production and retail sales tax for sales. Concerning retail sales tax, we believe after detailed pondering, that many enterprises adopt the form of franchise house in the sales to consumers and stripping value-added tax from taxation will lead enterprises to avoid tax by lowering its selling price to franchise shops and increasing the sales prices from franchise shops to consumers. Therefore, value-added tax should be throughout all the processes from production to consumption.

of governments and constant scale of transfer payment among them. Given the current reform trend, local government administrative authority will gradually be shifted up, which can help ease the fiscal pressure of local governments. Correspondingly, the VAT rate and retail sales tax rate are to be adjusted. Of course, a great amount of research into the elements of tax needs to be done before retail sales tax is implemented.

The management of retail sales tax should not be excessively dependent on receipt management. Given the way its systematic design, receipts are unavoidable in VAT collection and management. As business tax is levied on businesses, checking corporations' business revenue through receipts can trigger tax evasion. We notice that a great number of enterprises do not issue receipts after delivering service. To address this problem, it is advised that bills controlled by machine be disseminated in selling or other service. Regardless of the scale of the shop, the bill collection for selling product or service can only be achieved by offering receipts from machines on which the tax payment is indicated automatically. Tax department check the sales revenue and tax of enterprises on the basis of such receipts, and the function of receipt is limited to claiming refund for purchasers, which is employed in the management of sales tax in Japan.

With the rapid development of e-commerce, taxation targeting is receiving growing attention. Whether retail sales tax is levied or not, such issue always exists and needs to be solved. The major measures to do so are to identify the judging standard of permanent body under e-commercial environment, pinpoint the nature of online transaction of digitalized goods and establish e-invoice system and the system of information report of the third party. These measures should be adopted under the system of VAT and retail sales tax. On such basis, we can identify the VAT paid through B2B e-commercial model, the retail sales tax paid through B2C e-commercial model and offer tax-free treatment for the C2C e-commercial model.

3.4. The merits of the reform scheme

We believe there are eight advantages in carrying out coordinated reform of VAT and retail sales tax.

First, it helps to improve the local tax system and promote tax-sharing system reform. Levying retail sales tax provides a reliable source of local revenue and is an essential step in improving the local tax system. On such a basis, the reform of the transfer payment, the adjustment of intergovernmental authority and a series of reforms of regional management can be conducted by seizing such opportunities.

Second, it helps to reduce resistance to reform. To ensure agreement about reform, the interests of all stake-holders needs to be protected. The same is true for introduction of retail sales tax. The current design takes the interests of the government at different levels into consideration and thereby keeps resistance to reform low.

Third, it facilitates the transformation of economic growth model. After the reform, VAT and corporate income tax become central taxes, so does the tax from construction industry and the sales of real estate, which are business taxes. The rapid expansion of corporations will no longer bring tax revenue to local government and the adverse effect of the original system on economic growth model is reduced. Lou (2013) points out that under the old system, the share that went

to local government is too high and undermined efforts to thwart local government impulse to pursue high rates of economic growth. The reform into financial and taxation system addresses the contradiction between ensuring the local government's financial needs and restraining extensive economic growth.

Fourth, it facilitates the functional transformation of the local government. The source of retail sales tax is mainly the consumption of the residents within the jurisdiction, local government will have an incentive to improve the local consumption infrastructure. The shift from maintaining manufacturers' interests into protecting consumers will also promote the increase of domestic consumption demand.

Fifth, it helps adjust the fair allocation of tax burden among residents. The structure of China's tax system is mainly commodity tax, which as we know is regressive and undermines fair tax burden distribution. This is a serious shortcoming of China's tax system. In order to correct the regressive nature of commodity tax, the current practice is to set tax rate at a lower level outside the basic tax rate, applicable to grain, central heating, books, agricultural products and other commodities closely related to people's well-being. Yet such tax reduction may not benefit all residents, since these goods may be inputs of the next step of production. Enterprises are the real beneficiaries. For instance, enterprises that purchase grain may apply the benefits onto brewing wine, while those who purchase heaters, natural gas and running water may be manufacturers. In addition, because enterprises come in a variety of forms, variable VAT rate could lead to uneven distribution of tax burdens among them. When retail sales tax is implemented, VAT rate needs to be as flat as possible, while the residential tax burden allocation needs to be adjusted by changing retail sales tax rate, like a low tax rate for food. In other words retail sales tax adjusts the allocation of tax burden of residents more flexibly and effectively than VAT.

Sixth, it can help narrow inter-regionally fiscal disparity. Comparing the variation index between the fiscal sales tax and VAT—0.836 for the former and 0.963 the latter, it is found that levying retail sales tax can help narrow fiscal gaps among regions. The reason is for any region, industry, and industry—based VAT may be optional, but commerce is not, and in China regional differences in industrial development is far greater than in commercial development.

Seventh, the growth potential of tax revenues is vast. VAT and business tax are the main types of tax in China, whose tax bases include capital and consumption. Double taxation on capital makes it more heavily taxed than consumption. The traditional economic growth model is driven by investment, thus investment growth will drive the rapid growth of both taxes, which is also the reason why tax revenue has grown faster than GDP growth during the ten years after tax-sharing system reform began (Lv & Guo, 2011). However, as the VAT reform is being deepened, investment expansion will weaken as a driver for growth, dampening future prospects for further tax revenue growth. As personal income continues to rise, the era of mass consumption will soon arrive. Adjusting the tax structure to lower the ratio of tax base against capital and increase that against consumption will sustain reasonable tax revenue growth rate and alleviate fiscal pressure.

From the perspective of political strategy for reform, to avoid public outcry about new taxes, the name of retail sales tax can be avoided while replacing it with "business tax". Yet new business tax is totally different from the old one.

Of course, judging from China's historical experience, at the beginning of any new tax, there

will be problems in collection and management. For instance, When VAT was introduced in 1994, receipt management brought about a long period of time during which fraudulent receipts thrived. Reform is always risky, for there are always some unexpected problems on collection and management in levying retail sales tax. But we need to persevere.

4. The basic framework of tax-sharing system

4.1. The main tax at provincial government level: personal income tax

According to traditional fiscal decentralization theory, personal income tax is usually classified as central tax for two reasons: first is the mobility of the tax base for personal income tax, which may easily cause vicious horizontal tax competition; second is its income redistributive and macroeconomic stabilization functions, which cannot be fully realized if it is a local tax.

However, in China, these two reasons do not hold strongly and personal income tax will become the main tax at provincial government level for quite some time. There are three reasons for this.

4.1.1. The horizontal tax distortion derived from personal income tax with schedular system is quite small

There are three types for typical personal income tax: first is comprehensive income tax which is collected on taxpayers' aggregate taxable income; second is source-specific income tax which is paid by taxpayers at different rates for different types or sources; third is tax combining comprehensive income and income from different sources. This is levied first as source-specific tax and then as comprehensive tax for the part that is above a certain amount. For purpose of income redistribution, taxing aggregate income is better than taxing source-specific income; for purpose of management, taxing source-specific income is far easier than taxing aggregate income.

Levying tax according to source in our current personal income tax system is simple, but it does not facilitate income redistribution. As early as 1996, it was proposed in "The Ninth Five-year Plan" at the Fourth Session of the Eighth NPC(National People's Congress) that a personal income system covering all personal income and combining source-specific income tax and comprehensive income tax should be established. This goal was repeatedly put forward at subsequent NPC sessions, yet heavy reliance on personal income tax based on sources continues. In 2012, 61.6% comes from tax levied on wage, and was dubbed "payroll tax". The reason for doing so is the improvement of a series of important basic systems such as the establishment of a comprehensive tax code, implementation of registration system for personal asset and cash management as well as the establishment of nation-wide information platform for personal tax cannot be finished in a short time period. As long as these improvements of basic systems lag behind, source classification needs to be employed in levying personal income tax.

Under this model, there will be no tax distortion for personal income tax as a local tax. Fiscal decentralization emphasizes that the reason why personal income tax cannot be treated as a local tax is that an individual with great mobility may leave the region where tax rate is high and move to one with lower rates, which will stimulate local government to attract tax source by

reducing actual tax rate in execution and distort the behavior of government and individuals. But in China, the tax rate applicable to all types of income is uniform across the country and has been universally adopted by means of deduction at the source. Therefore, there is no room for the local government to manipulate the level of actual tax rate. Moreover, as personal income tax accounts for only 2% in disposable income,¹ tax is hardly something taxpayers think about when job-hunting.

Even if there is transformation into a combination of taxation of aggregate income and source-specific income, given China's registration system, personal income tax is still collected by the local government through its linkage with household registration. In addition, given the features of personal income tax in China, the first step that will be made will more likely be to levy tax on aggregate income for wages and for personal services and to levy taxes on income by source for other types of income. If this is true, there will not be any larger efficiency loss for the Local Taxation Bureau in tax collection.

4.1.2. Personal income tax has little effect on economic adjustment and income redistribution

There are two features to personal income tax in developed countries: first, it is the main tax and in OECD countries the average share of personal income tax in total tax revenue is 24%; second, methodologically, either tax on aggregate income or a combination of tax on both aggregate and source-specific income is used. High personal income tax may play a more significant role in adjusting economic performance. For instance, when there is economic downturn, tax reduction may stimulate work or investment. Tax on aggregate income at a large scale can do the same, since it reflects income disparity among residents and can mitigate inequality through the implementation of progressive tax rates. Thus, personal income tax can adjust economic performance and reduce income inequality, so long as the scale is sufficiently large and covers a sufficiently large area.

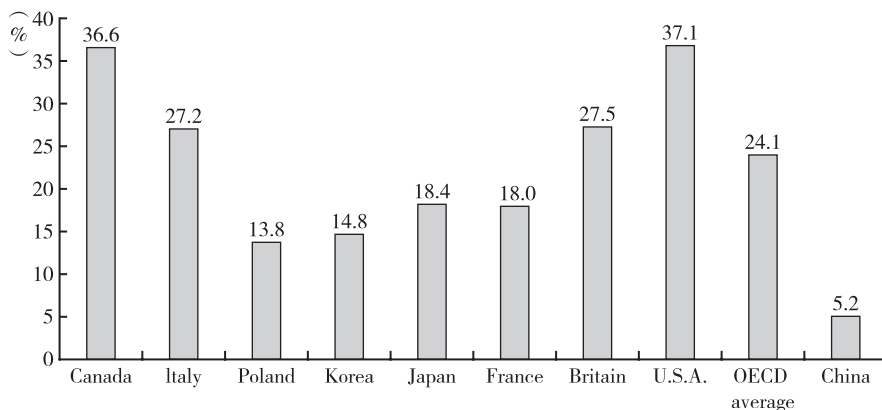


Figure 4. The ratio of personal income tax among tax revenue in various countries

Source: <http://stats.oecd.org>

¹ Calculations are gained through total value of national personal income tax dividing the sum of residents' disposable income, of which the latter is from the "Statement of Cash Flow" in *China Statistical Yearbook*.

But in China personal income tax is neither the main tax nor levied on a large scale, thus its adjustment function is limited. The ratio of China's personal income tax is quite low, contributing only 5.2% toward total revenue in 2012, which is only one fifth of the average in developed countries (See Figure 4). In terms of the scale of taxpayers, personal income tax in China is not yet a universal tax, which is particularly true after the threshold for exemption was raised, thereby reducing the number of taxpayers. Personal income tax is collected in China according to source of income, weakening its function as an income redistribution instrument. The calculations made by Yue(2012) illustrate this well. They show that personal income tax in China lower the Gini coefficient by a paltry 0.0076.

In the foreseeable future, China's income tax still cannot play a strong role in adjusting the economy and redistributing income. Its main function lies in raising fiscal income. This means that the financial decentralization theory cannot be rigidly adhered to and the personal income tax must become a central tax.

4.1.3. Taking personal income tax as main tax at provincial level would help mobilize the local government initiative

Whether personal income tax should be central tax or local tax depends on more than its function and role but also on how personal information is gathered and its impact of the incentives for the tax bureau. If personal income tax is collected by State Taxation Bureau as central tax, it ranks behind VAT, corporate income tax and consumption tax in terms of importance for State Taxation Bureau according to the scale of income. Judging from the input into tax collection and management, personal income tax will be collected and managed with a higher cost due to a larger scope in which it is implemented. High collection and management costs will cause the State Taxation Bureau to slack off on VAT, corporate income tax and consumption tax at least, which is predictable consequence. But if personal income tax is implemented according to category of source or only the salary and labor remuneration are comprehensively taxed, there will not be special advantages in taking it as a central tax, due to the simple taxation process.

Conversely, treating personal income tax as local tax at provincial level will provide positive incentives to the local government. Most provinces in China cover an area equivalent to a medium-sized country, so there will be large advantages to regarding personal income tax as a provincial local tax from the perspectives of the ease of tax collection and management, its beneficial effects of the payers, and taxation initiative.

First, for the convenience in tax collection and management, most of the areas for an individual's activity are generally within a single province, so local government can gather the information of its residents at a lower cost than it would be for the central government. Even if an individual has income from different provinces (including remuneration and stock dividends), such information can be collected through uniform taxation registration number and uniform taxation account. For instance, remuneration can only be calculated through taxation account.

Second, in terms of the beneficial nature, personal income tax indeed has such nature to some extent (Ambrosiano & Bordon, 2006). This is due to the close relationship among personal income, the infrastructure offered by government and the employment environment that has been created. Another reason is the correspondence between the differential public services offered by

local government (including education, community service and medical care) and the differential personal income. As such is the case, local government is entitled to the right for yields on personal income tax on the basis of fiscal centralization theory.

Third, a relatively strong taxation incentive will arise through taking personal income tax as a main tax at the provincial level. If the main revenue source for provincial governments is personal income tax, it would encourage provincial government to improve infrastructure for personal income tax collection and management, such as information network, cash transaction reduction and uniform taxation account and uniform taxation registration number. This will urge the Local Taxation Bureau to improve its capacity on tax collection and its general efforts on tax law enforcement. Yet if all these measures are to be taken by the central government, the building of a system for personal income tax collection and the improvement of its capacity on this will be hindered given the size of the administration area, inter-provincial differences and reduced importance of personal income tax.

To sum up, given its weak effect on income distribution and economic stability, it would be advisable to classify personal income tax as the main tax at the provincial level. It is appropriate to collect tax first on the personal labor income in a comprehensive manner as a provincial-level main tax and then on the capital income tax in different categories as a central tax.

4.2. The main tax for county-level government: retail sales tax and property tax

We have noted that there are many advantages to classifying retail sales tax as the main tax for local government. Retail sales tax is thus suitable as the main tax of a government at a lower level, that is, a county-level government.

Meanwhile, the legislation for “property tax” must be accelerated. There has been strong preference for treating property tax on private homes as a local tax, but this will be consequential given its large impact on people’s lives. We must adhere to three principles in order to enable it to take root: first, the policy combining low tax rate and large tax exemption area should be adopted, since the taxpayers are limited to the minority who own more than one property; second, tax revenue legal principle should be strictly adhered to and public participation in the legislative process should be maximized; for the setting up of tax base and tax rate, the related stipulations need to be formulated by NPC or be reviewed by the Standing Committee of NPC; third, the property tax collection must be linked with the local fiscal system, for which the crucial point is to promote transparency and strengthen the supervision on the implementation of the budget. This helps to ensure residents’ consensus about, support for and participation in the property tax system.

4.3. The basic framework of tax-sharing

On the basis of the results from the above analysis, we have come up with the basic framework of tax-sharing, that is, classifying VAT, consumption tax and tariffs as the main central taxes; personal income tax as the main provincial-level tax; no main tax for municipal government and the fiscal shortfall is to be addressed by government at a higher level; retail sales tax and property

tax are the main county-level taxes, while other taxes are auxiliary taxes. The basic framework of tax-sharing is seen Table 4.

Table 4
The basic framework

Tax category		The administration
The central government	VAT, enterprise income tax, consumption tax and tariff	National Taxation Bureau
The provincial government	Personal income tax	Local Taxation Bureau
The county government	Sales tax, real estate tax, vehicle and vessel tax, and other taxes	Local Taxation Bureau

To sum up, the benefit of tax-sharing framework is that both retail sales tax and property tax purport to benefit the payers as local taxes at county level. They promote the transformation of government function, undermine the financial power of provincial government while encouraging the provincial government to give initiative into full play and safeguard the authority of central government. As a central tax, VAT and corporate income tax helps to reduce tax distortion and standardize tax order.

Under the above tax-sharing framework and given that tax reform involves the division of the power of tax collection, it is worthwhile to keep the current tax collection system with State Taxation Bureau administrating central tax and Local Taxation Bureau in charge of the collection and management of local tax below the provincial level.

4.4. The replacement for the VAT revenue-sharing

In the above reform scheme, the most difficult one is the collection of retail sales tax. This is not due to the difficulty in the technology for tax collection and management, but the great variety of restriction factors in collecting a new tax on a grand scale, which will easily cause strong resistance from the public. For this reason, a transitional replacement with a lower reformative degree is needed under immature conditions. The core practice of such replacement is to change the pattern in which VAT is distributed, turning the 75:25 ratio between the central and the local governments into 60:40. To achieve this goal, the VAT, after being summarized at the central government, should be allocated uniformly by it. Forty percent of the VAT revenue is to go to the local government, so this revenue for the local government is not based on the local realized VAT revenue but on the share of local retail sales of consumer goods among the national one (the population ratio is also applicable). The adjustment pattern of tax-sharing for corporate income tax and personal income tax remain the same.

The outlook of such replacement is consistent with the collection of retail sales tax, which establishes the main tax source of local government on the consumption of local residents. Such measure will minimize adverse influence of the original tax-sharing system on the economic growth model, narrow the gap between regional financial resources and promote the transformation of local governmental functions.

The problem in this solution is that local government may intervene with the statistics of data

of local retail sales of consumer goods. Therefore, CVAT (Compensating VAT) may be referred to as well. CVAT means that for the sales to the buyers within the jurisdiction of the subordinate government (merchants with or without registration and families included), local VAT is allowed to be levied. Yet, the tax levied on the sales to the buyers outside the jurisdiction belongs to the central government. Given the conditions in China the ratio for tax sharing between central and local government can be defined according to the information about the VAT receipt and the division of commodity sales into two parts—sales within or outside the jurisdiction on the basis of the ratio of the two, with the former belonging to central tax and the latter local tax. The advantage of such solution is that since local tax derives from the business activities outside the jurisdiction, the local government can hardly interfere with economic operation, let alone engineer tax distortion. Currently, “Golden Tax Project” on VAT can easily differentiate the scale of VAT derived from different areas without problems concerning technology.

All of the solutions focus on the reform of VAT. They are listed in Table 5. However, we believe that they are only for the transitional period, tax-sharing should be adhered to for the long term and it is necessary to collect retail sales tax.

Table 5

The comparison among the solutions for VAT reform

Solutions		Steps	
Solution 1: introducing retail sales tax	1. The business tax in construction industry and property sales industry are to be transformed into VAT as central tax; corporate income tax belongs to the central tax; personal income tax belongs to provincial local tax; real estate tax begins as county local tax.	2. Retail sales tax collection begins as county local tax at 5%.	3. The VAT rate decreases to 13%.
Solution 2: setting up the ratio for VAT sharing according to consumption	1. The same to the above.	2. The central government allocates 40% of the total VAT for tax sharing.	3. Share VAT in accordance with the total social consumption locally.
Solution 3: setting up the ratio for VAT sharing on the basis of target buyers	1. The same to the above.	2. With reference to the jurisdiction area for sales and VAT, central tax and local tax are divided.	

5. Conclusions

Our main conclusions are as follows. First, there are three types of solutions to dealing with the relations between the central and local governments: tax-sharing, revenue-sharing and transfer payment. Tax-sharing is superior to revenue-sharing when there is no common efforts or shared risks between governments; transfer payment is less efficient when the information between the authorities at a higher level and that at a lower level is clearly asymmetric and when governmental preferences within jurisdiction cannot adequately reflect residents' needs. Tax-sharing system will be the primary reform direction.

Second, considering the local government is highly capable in mobilizing the resources within its jurisdiction and plays a leading role in administrating numerous economic and social affairs, we should stick to three principles in improving local tax system: making sure local governmental financial needs are met, promoting the transformation of economic growth model, and avoiding tax disorder.

Third, under the current tax-sharing framework, local government is facing a dilemma of having no tax revenues to share. To address this, retail sales tax should lead the tax-sharing system reform, that is, retail sales tax should be collected at a certain ratio in accordance with retail price when the retailing process of products begins and classify it as a local tax. Meanwhile, we should lower VAT rate and treat it as a central tax, and replace business tax with retail sales tax. Collecting retail sales tax will be conducive to transforming economic growth model, stabilizing the interests of government at all levels and transforming local governmental functions.

Fourth, when such factors as residents' areas of activities, tax functions and the convenience of administration are taken into account, personal income tax reform may be designed to cover both aggregate and source-specific income. Comprehensive collection on wage may be the main source for provincial tax revenue, the tax on capital income may be a central tax.

Fifth, the basic framework for tax-sharing system is: the main central taxes are VAT, corporate income tax, consumption tax and tariffs; the main tax for provincial government is personal income tax; and there are no main tax for municipal government and its financial shortfall is to be solved by higher levels of government; the main taxes for county government are retail sales tax and property tax, complemented by other auxiliary taxes. Taking the political pressure for reform into account, we have to propose for proceeding with VAT reform through revenue sharing.

Sixth, the benefits to implement the above tax-sharing system reform include: both retail sales tax and property tax purport to benefit the payers. As county-level taxes, they promote the functional transformation of the government, undermine the financial power of provincial government while encouraging the provincial government to support the central government. As central taxes, VAT and corporate tax help constrain tax distortion and standardize the tax order.

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