

Research Article

Analysis of Income Attribution of Consumption Tax in China's Central and Local Government

Yanguo Han , Wenchao Zhao , Haixia Hao , Xianfeng Zhang , and Jingjing Zhou 

Department of Business Administration, Hebei University of Industry and Technology, Shijiazhuang, Hebei, China

Correspondence should be addressed to Wenchao Zhao; hbzhaowenchao@126.com

Received 23 July 2021; Revised 1 November 2021; Accepted 5 November 2021; Published 22 November 2021

Academic Editor: Daqing Gong

Copyright © 2021 Yanguo Han et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

After the policy to replace the business tax with a value-added tax was launched, local finance has encountered greater difficulties. In recent years, the economic downward pressure has made the dilemma far more serious. Some scholars, even from state level, showed some intentions of recommending that the consumption tax should be changed from the current central tax to a local tax or a shared tax to relieve the pressure of local governments. In this paper, we proved by presenting recent year's tax figures of business, consumption, and local and central fiscals and their growth rate that replacing the consumption tax with a local tax does not exactly correspond to the trend of China's reform of the financial system, the functional orientation of the consumption tax, and the nature of the consumption tax itself and may trigger some problems, and it may still be a better choice for the consumption tax to serve as a central tax.

1. Introduction

In 2019, the State Council also proposed to move the consumption tax collection to the consumption link and transferred it to the local governments steadily under the premise of controllable collection and management, but the *<Consumption Tax Law> Draft for Comment* issued at the end of 2019 did not emphasize the above change, which reflects the country's prudence on the attribution of consumption tax. It can be seen that China suffers from enormous economic pressure and tax pressure. The country has stimulated the vitality of market entities with unprecedented tax and fee reduction policies; meanwhile, governments at all levels are also facing hard times of a doubled financial burden. Some scholars recommend that the consumption tax, which currently belongs to the central tax, should be adjusted to a local tax or a central and local shared tax to alleviate the pressure on local fiscal management. If the consumption tax is replaced with a local tax, logically the collection link will be inevitably required to be adjusted from the current production link to the retail link. So, does the current replacement of consumption tax with a local tax or a shared tax conform to the taxation principle of consumption tax and our present national conditions? If the above is

implemented, what challenges would we face? All these are questions that must be answered in the consumption tax reform.

According to the suggestions of Chu et al. [1], if the consumption taxes of cigarettes, wine, cars, and refined oil are all regarded as central taxes (in 2018, the revenue of the 4 tax items accounted for 98.8% of the consumption tax), the part that can be shared by the central and local governments only accounted for 1.2%. In order to obtain a part of the 1.2%, the local governments still need to implement tax collection of other 11 tax items in the retail link, which will greatly increase the taxation cost, which may not be worth it from the economic perspective.

According to the calculation of Xie et al. [2], regardless of the collection in the production link or the consumption link, the adoption of the method of "determining the base and adjusting the increment" will encounter the reduction of the consumption tax income in some provinces.

2. Literature Review

Consumption tax has three main functions—organizing fiscal revenue, adjusting income distribution, and correcting externalities. At different stages of development in different

countries, there are differences in the importance degree of the three functions: in some developing countries, the main function of consumption tax is still to raise fiscal revenue. In Western developed countries, the function of consumption tax in organizing income and adjusting distribution is gradually diminishing (tax income mainly comes from income tax and property tax, and adjusting distribution mainly depends on income tax) and the function of restraining externalities is realized by raising the social cost of polluting products and is constantly reinforced.

Feng [3] pointed out that the social economy of a country determines its fiscal system, the fiscal system determines the tax system, and the tax system defines the position and function of a certain tax (such as consumption tax). In terms of correcting externalities, Jia and Zhang [4] found that China's carbon dioxide emissions were not related to consumption tax from 1994 to 2009 and therefore held that consumption tax did not play a role in correcting externalities. Peng and Tian [5] held that fluctuation in oil prices (including fluctuation in international oil prices and consumption tax amount) would not affect consumers' car usage behavior in the short term. The effect of adjusting consumption tax to prompt car owners to cut back on using cars was very limited. Gao and Liu [6] held that refined oil consumption tax can restrain oil consumption and promote oil consumption per unit of GDP, but this effect had a certain time lag. In terms of regulating income distribution, He [7] held that the consumption tax in China not only failed to improve the fairness of income distribution, but also intensified the unfairness. Consumption tax has led to a decline in the welfare of urban residents, and this situation is in a worsening state. Zhao and Xiao [8] held that the consumption tax in China had limited effect in narrowing the income gap among residents. The consumption tax on refined oil and autos has a positive effect on the adjustment of income gap, but it is offset by the negative adjustment of the consumption tax on tobacco and alcohol to a certain extent. According to the research of Xie et al. [2], if the consumption tax is levied in the sales link, compared with that in the production link, the regional differences are not narrowed, but on the contrary, increased. The article used the data in 2017 for calculation. If the tax is levied in the sales link, the consumption tax in 13 provinces, autonomous regions, and municipalities directly under the Central Government across the country will increase, and that in 18 provinces, autonomous regions, and municipalities directly under the Central Government will decrease.

For the sharing method of the consumption tax in China, there are two representative viewpoints in the academic circles, namely, tax-base sharing and revenue sharing. It is suggested by Chu et al. [1] that the consumption tax on tobacco and alcohol products (including cigarettes, wine, refined oil, and cars) should be possessed by the central government, while that of non-tobacco and alcohol products should be shared. The central government should make uniform legislation and give local governments certain power of tax administration and revenue sharing simultaneously. It is suggested by Gao and Li [9] that some of the consumption tax items should be assigned to local

governments and the collection link should be moved backward from the production link to the retail link; the collection in the production link should be attributed to the central government, while that in the retail link should be attributed to local governments. Yin and Zhang [10] believed that the consumption tax can adopt a "proportional sharing mode" that is similar to value-added tax, and the central and local governments implement a structure of "shared tax + transfer payment." Han and Chang [11] believed that it is not suitable for the current consumption tax to serve as a local tax. However, in order to make up for the local financial needs, a central-local sharing can be implemented in the short term, which is only limited to the central- and provincial-level sharing. Based on the analysis of Jia and Zhang [4], when the society is in a "dumbbell-shaped" structure (the poor and rich are in the majority, and the middle class is in the minority), high taxes are levied on luxuries and the effect of adjusting income gap is more significant.

The difference between these two viewpoints is that the tax-base sharing considers the nature of the consumption tax more, while the revenue sharing pays more attention to supplementing local fiscal gaps. Yin and Zhang [10] suggested that the share proportion should be adjusted dynamically. The local governments could get more share proportion. When the local governments have established a stable source of income, the priority should be given to the central government to ensure the realization of the macro-control function. It is believed by Ouyang [12] that out of the need of regulation, the priority should be given to the central government; in order to balance the financial situation between regions, different provinces can have different share proportions—the proportion of economically underdeveloped regions with small consumption tax scales can be appropriately increased, but the differences in the proportions between regions should be controlled within a reasonable range. Hong [13] pointed out sharply the following: "In fact, the proposition of "shared tax theory" is not more convincing than the "local tax theory." Although the "shared tax theory" seems to be relatively reasonable—taking the interests of the central and local governments into consideration—actually, it may also cause the consequence that neither can be considered.

3. Research Method

In the field of socioeconomic study, in order to comprehensively and systematically analyze and study problems, many economic indexes must be considered. These indexes can reflect the characteristics of the objects we study from different aspects, but to some extent there is information overlap and they have certain relevance. Principal Component Analysis (PCA) tries to simplify the multivariable cross-sectional data table optimally under the principle of keeping data information loss to a minimum, that is, to reduce the dimension of the high-dimensional variable space. Under the principle of minimizing data information loss, dimensionality reduction for high-dimensional variable space is to study a few linear combinations of the index system, and the comprehensive index composed of these

linear combinations will retain as much information as possible about the original index variation. These comprehensive indexes are called main components. The calculation process is as follows.

In order to simplify the problem, an evaluation index system is set up: $X = (X_1, X_2, \dots, X_i, \dots, X_n)$, $X_i = (i = 1, 2, \dots, n)$ is the single evaluation index of number i , $Y = (Y_1, Y_2, \dots, Y_i, \dots, Y_n)$ is a comprehensive index after synthesizing the original index system. There are

$$\begin{aligned} \{ Y_1 &= C_{11}X_1 + C_{12}X_2 + \dots + C_{1n}X_n, Y_2 = C_{21}X_1 + C_{22}X_2 \\ &+ \dots + C_{2n}X_n, \dots, Y_n \\ &= C_{n1}X_1 + C_{n2}X_2 + \dots + C_{nn}X_n. \end{aligned} \tag{1}$$

$C_{k_1}^2 X_1 + C_{k_2}^2 X_2 + \dots + C_{k_n}^2 X_n = 1 \quad (k = 1, 2, \dots, n)$. C_i^j represents the weight of the j single index in the i composite index. If the correlation matrix of the index vector X is $R_{n \times n}$, solve the equation $|\lambda_i I_{n \times n} - R_{n \times n}| = 0, (i = 1, 2, \dots, n)$ and obtain n eigenvalues, sorted from large to small is $\lambda_1 \geq \lambda_2 \geq \dots \geq \lambda_n \geq 0$, and the corresponding eigenvectors are $c_1, c_2, \dots, c_k, \dots, c_n$; then the transformation matrix of the above equation set is $c = (c_1, c_2, \dots, c_k, \dots, c_n)$, $c_k = (c_{k_1}, c_{k_2}, \dots, c_{kn}), k = (1, 2, \dots, n)$. And the k principal component of X is

$$Y_k = C_k X = C_{k1}X_1 + C_{k2}X_2 + \dots + C_{kn}X_n \quad k = (1, 2, \dots, n) \tag{2}$$

The variance is λ_k .

In general, the proportion of the total information amount in the original data the k principal component maintains is as follows:

$a_k = \lambda_k / \sum_{i=1}^n \lambda_i$ (a_k is the variance contribution rate of the principal component Y_k).

In order to reduce the number of indexes, the top m ($m < n$) comprehensive indexes (i.e., the top m principal component) usually should reflect more than 85% of the total amount of raw data.

The paper runs through recently related regulations from local and central government and academic insight from scholars of the industry. Furthermore, this paper presented recent years' tax figures of business, consumption, and local and central fiscals and their growth rate, and with in-depth and prudent comparison, this paper reaches the conclusion.

4. Research Processes and Results

4.1. The Economic Downturn and Tax Reduction Have Confronted Local Finance with Major Difficulties. From 2017 to 2020, Premier Li Keqiang mentioned in his annual government work report that China was subject to "increased economic downward pressure." COVID-19 that began in early 2020 has created unprecedented difficulties in domestic economic development. According to the initial estimate by the National Bureau of Statistics, China's gross domestic product (GDP) fell by 1.6% in the first half of 2020 compared with a year earlier. The GDP of 15 of the 31 provinces, municipalities, and autonomous regions fell by

0.2% (Shandong)–19.3% (Hubei) compared with a year earlier. According to the statistics of the Ministry of Finance, the national revenue in the general public budgets fell by 8.7% from January to July 2020 compared with a year earlier.

Since the business tax was completely replaced with value-added tax in 2016, local tax income has decreased significantly. Although the local share of value-added tax has increased from 25% to 50%, local governments cannot make ends meet in finance. Under the pressure of economic downturn and tax and fee reduction, local tax income is even worse.

In September 2019, the State Council issued the *Promotion Plan for Adjusting the Reform of Division of Revenue between the Central and Local Governments after Implementing Larger Tax and Fee Reduction* (hereinafter referred to as the *Promotion Plan*) and also proposed to "move the consumption tax collection to the consumption link and transferred it to the local governments steadily under the premise of controllable collection and management" so as to provide directional guidance for the reform of consumption tax. Meanwhile, we also noticed that the *<Consumption Tax Law> Draft for Comment* jointly issued by the Ministry of Finance and the State Taxation Administration in December 2019 is basically a translation of the current *Provisional Regulations on Consumption Tax*. There is basically no change in tax collection link closely related to the income attribution (still the production, commissioned processing, and import links). This phenomenon not only shows that the government gets cautious on the attribution of consumption tax income, but also shows that the issue is still under discussion.

4.2. Consumption Tax Cannot Address Local Financial Difficulties

4.2.1. Consumption Tax Cannot Replace the Former Status of Business Tax. In 2019, the domestic consumption tax income in China was RMB 1.2562 trillion, accounting for 7.95% of the total tax income for the indicated year RMB 15.7992 trillion, exceeding personal income tax (6.58%) and becoming the third largest tax category after value-added tax (39.46%) and corporate income tax (23.61%). However, the scale of consumption tax income is still far smaller than that of original business tax.

It can be seen from Tables 1 and 2 that domestic consumption tax income was always far below business tax, generally only equal to about 50% of business tax from 2009 to 2016. After the policy of replacing the business tax with a value-added tax was fully implemented on May 1, 2016, the business tax income for only the first four months exceeded the annual consumption tax income for the indicated year. Consumption tax did not reach the level of business tax in 2011 (RMB 1.3679 trillion) until 2019 (RMB 1.2562 trillion).

This shows that even if the consumption tax is completely replaced with a local tax, the former status of business tax cannot be replaced.

4.2.2. Consumption Tax Cannot Cover the Gap in Local Fiscal Expenditure. Table 3 shows that in the past five years, China's local fiscal revenue has steadily increased, but fiscal

TABLE 1: Domestic consumption tax and business tax income (2009–2016).

Main components	2009	2010	2011	2012	2013	2014	2015	2016
Consumption tax (RMB 100 million)	4,761	6,072	6,936	7,876	8,231	8,907	10,542	10,217
Business tax (RMB 100 million)	9,014	11,158	13,679	15,748	17,233	17,782	19,313	11,502

Data sources: from the figures in [14].

TABLE 2: Domestic consumption tax income (2017–2019).

Main components	2017	2018	2019
Consumption tax (RMB 100 million)	10,225	10,632	12,562

Data sources: from the figures in [14].

TABLE 3: Local fiscal revenue and expenditure (2015–2019).

Main components	2015	2016	2017	2018	2019
Local fiscal revenue (RMB 100 million)	83,002	87,239	91,469	97,903	101,077
Local fiscal expenditure (RMB 100 million)	150,336	160,351	173,228	188,196	203,759
Local fiscal gap (RMB 100 million)	67,334	73,112	81,759	90,293	102,682

Data sources: from the figures in [14].

expenditure has grown faster, resulting in a wider fiscal gap, rising by 52.5% in five years. In 2019, domestic consumption tax income (RMB 1.2562 trillion) was equal to only 12.2% of the local fiscal gap (RMB 10.2682 trillion). Affected by COVID-19, China's consumption tax income in 2020 will probably fall, but the local fiscal gap will probably rise, so the gap between the two will become more obvious. In other words, hoping to close local fiscal gap with consumption tax far exceeds the ability of the central government.

4.3. The Consumption Tax in China Should Not Be Suitable to Serve as a Local Tax

4.3.1. *The Trend of China's Reform of the Financial System Determines That the Consumption Tax Should Not be Suitable to Serve as a Local Tax.* Since the Third Plenary Session of the 18th CPC Central Committee, the country has been striving to build a financial system where the administrative power is compatible with expenditure responsibilities. In 2013, the *Decision of the CCCPC on Some Major Issues Concerning Comprehensively Deepening the Reform* pointed out that "we should appropriately strengthen the central government powers and expenditure responsibilities." The central government would take back responsibilities for expenditure on certain items (such as justice, social security, medical treatment, and education) previously allocated to local governments. The proportion of central fiscal expenditure in the national fiscal expenditure should be increased from 15% to 30%. In 2016, the State Council clearly proposed in the *Guiding Opinions on Promoting the Reform of the Division of Fiscal Powers and Expenditure Responsibilities between the Central and Local Governments* that in order to achieve the "adaptability of expenditure responsibilities to fiscal powers," we need to "appropriately strengthen the fiscal powers of the central government" and "reduce and standardize the common fiscal powers of the central and local governments." The central government must have

sufficient financial resources to smoothly perform more expenditure responsibilities.

It can be seen from Table 4 that compared with 2015, the central fiscal revenue increased by 28.9% in 2019, but fiscal expenditure increased by 37.5%, resulting in an increase in fiscal surplus by only 23.9%.

If the consumption tax is replaced with a local tax or a shared tax, it will weaken the ability of the central government to strengthen its administrative power, which does not exactly correspond to the trend of the reform of the financial system.

4.3.2. The Functional Orientation of the Consumption Tax in China Determines That It Should Not Be Suitable to Serve as a Local Tax

- (1) The functional orientation of the consumption tax in China is regulated. The current *Provisional Regulations on Consumption Tax* do not clearly stipulate the legislative intent, but this does not mean that the consumption tax in China does not have the legislative intent; conversely, its legislative intent has always been relatively clear. In 15 consumption tax items, 7 are directly related to environmental protection and personal health (tobacco, alcohol, fireworks and firecrackers, wooden disposable chopsticks, solid wood floor, batteries, and paint), 3 are indirectly related to environmental protection (cars, motorcycles, and refined oil), and 5 are directly related to income regulation (precious jewelry and gems, high-end watches, golf and golf equipment, yachts, and high-end cosmetics), which does show that China's legislative departments focus on correcting externalities and regulating income.

Table 5 shows that, except for some specific years, the proportion of domestic consumption tax in

TABLE 4: Central government revenue and expenditure (2015–2019).

Main components	2015	2016	2017	2018	2019
Central fiscal revenue (RMB 100 million)	69,267	72,366	81,123	85,456	89,305
Central fiscal expenditure (RMB 100 million)	25,542	27,404	29,857	32,708	35,115
Central fiscal surplus (RMB 100 million)	43,725	44,962	51,266	52,748	54,190

Data sources: from the figures in [14].

TABLE 5: Proportion of domestic consumption tax income in total tax income for the indicated year (2008–2019).

Main components	2008	2009	2010	2011	2012	2013
Consumption tax income (RMB 100 million)	2,568	4,761	6,072	6,936	7,876	8,231
Its proportion in total tax income (%)	4.74	8.00	8.29	7.73	7.83	7.45
Main components	2014	2015	2016	2017	2018	2019
Consumption tax income (RMB 100 million)	8,907	10,542	10,217	10,225	10,632	12,562
Its proportion in total tax income (%)	7.47	8.44	7.84	7.08	6.80	7.95

Data sources: from the figures in [14].

total tax income basically stabilized between 7% and 8% for many years. This shows that the function of consumption tax in organizing income is relatively unspectacular in China, but its regulatory function (including restraining externalities and regulating income) is a function on which the country places a higher value, of which correcting externalities is particularly important. In 2014, the “Enhancing the Regulatory Function of Consumption Tax” mentioned in the *Master Plan for Deepening the Reform of the Fiscal and Tax Systems* by the Political Bureau of the CPC Central Committee can be understood as the country’s clarification and emphasis on the regulatory function of consumption tax.

- (2) The regulatory function of consumption tax determines that it should not be suitable to serve as a local tax. If the main function of consumption tax is positioned as obtaining fiscal revenue, it is feasible to serve as a central tax, local tax, and shared tax. If it is positioned as regulating the economy, it may be difficult for the consumption tax to take this role as a local tax. On the one hand, macro-control requires the central government to conduct the integrated design, unify legislation, and standardize implementation proceeding from the long-term aggregate welfare of the whole society. On the other hand, saving resources and protecting the environment have overall and cross-regional characteristics. The central government’s ability to coordinate various parties, allocate resources, and balance benefits cannot match the ability of local governments.
- (3) The dissatisfactory realization of regulatory function of consumption tax is not the reason why consumption tax becomes a local tax. The empirical findings of many scholars show that the consumption tax in China has made some achievements in the realization of its regulatory function, but it cannot completely meet the needs of economic and social

transformation and development. There is still a certain gap between the actual effect and the theoretical effect.

4.3.3. The Nature of Consumption Tax Does Not Meet the Requirements of Local Tax. According to Musgrave, the father of modern finance, those suitable to serve as local taxes should be nonflowing tax categories with weak externalities, but consumption tax does not fit these characteristics. Firstly, the consumption tax is levied on specific commodities with a strong mobility; secondly, multiple tax items of the consumption tax have relatively strong externalities. Cigarettes, firecrackers and fireworks, batteries, coatings, wooden disposable chopsticks, and so on will all have a negative impact on the natural environment. It can be seen that the nature of consumption tax determines that it is not suitable to serve as a local tax; at least, not all tax items are suitable to serve as local taxes. At the same time, taking the consumption tax as a source of local revenue must be based on the premise of the continuous and steady growth of the consumption tax income. However, whether this premise can be realized is not clear.

Table 6 shows that in the past ten years, the growth rate of China’s consumption tax income has been very unstable. The stability of income growth in the future is difficult to be guaranteed. The reasons include at least the following aspects: firstly, the taxation scope of consumption tax is still under dynamic adjustment, and some consumer goods may be removed from the tax items or the starting point of taxation may be increased. For example, according to the current regulations, RMB 10 per gram of cosmetics belongs to the “top grade,” while ordinary lipsticks are generally 3.5 grams, which means that a lipstick with an ex-factory price of RMB 35 will be subject to consumption tax, the starting point of which is relatively low. Secondly, with the popularization of the green consumption concept, the consumption tax of the public on nonenvironmental products will decrease. For example, the investigations of various provincial health commissions show that the smoking rate of people aged 15 and above in China had dropped from 27.7%

TABLE 6: China's domestic consumption tax income and growth rate (2009–2019). Unit: RMB 100 million.

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Consumption tax	4,761	6,072	6,936	7,876	8,231	8,907	10,542	10,217	10,225	10,632	12,562
Growth rate	85%	28%	14%	14%	5%	8%	18%	−3%	0	4%	18%

Data sources: from the figures in [14]. The surging consumption tax amounts and growth rates in 2009, 2010, and 2015 in the table were caused by the taxation of cigarettes in the wholesale link and the increase in the tax rate of refined oil.

in 2015 to 26.6% in 2018. Thirdly, over the years, the state has strictly controlled the consumption using public funds, and the consumption of cigarettes and wine has decreased. Fourthly, influenced by the slowdown of China's economic growth, the concerns about future uncertainty will cause the public to reduce consumption moderately, especially the consumption of luxury goods. All of these will affect the growth of consumption tax income and will weaken the sufficiency of the reasons for adjusting consumption tax to local tax.

4.3.4. Several Problems That May Be Faced If Changing the Consumption Tax to a Local Tax

(1) *Adverse Incentives May Be Created.* Generally speaking, any tax that is inhibitive or punitive is more suitable to serve as a central tax, rather than a shared tax, and a local tax. If the consumption tax is used as a local tax, the local government may deliberately develop industries with inferior values in consideration of the economic benefits, thus being contrary to the regulation and control goals of the state.

Tobacco tax is a small tax with the nature of consumption tax. Since it belongs to local tax, some local governments encourage peasants to grow tobacco out of financial needs and even force them to grow it. Such phenomenon occurs even when the tax rate of tobacco tax is only 20%. The consumption tax rate of cigarettes is up to 56% (and there is also a fixed tax rate). There is great uncertainty of how will the consumption tax affect the decision-making of local governments if it is classified as a local tax.

(2) *A Huge Adjustment in the Pattern of Local Interests May Be Triggered.* There are obvious imbalances in China's consumption tax. The first is the unbalanced income of various tax items, and the second is the uneven distribution in various provinces.

China's consumption tax has 15 tax items, but the tax revenue is highly concentrated in cigarettes, refined oil, cars, and wine. The tax revenue of these four tax items accounts for more than 96% of the consumption tax each year.

The production of the products of these four tax items with the largest proportions is obviously regional in China, while there will be no big changes in a short time (e.g., Yunnan is a major tobacco producing province, and Guizhou and Sichuan are major alcohol-producing provinces), leading to the obvious imbalance in the distribution of consumption taxes in various provinces. Taking 2016 as an example, the top three with the highest proportions of consumption tax in total local tax revenue were Yunnan (23.14%), Gansu (22.11%), and Hunan (19.44%), while the

top three with the lowest proportions were Tibet (1.73%), Beijing (1.84%), and Shanxi (3.27%). The highest proportion was 13 times the lowest one. Tobacco was the tax item with the largest contributions in consumption tax, and the tax revenue provided by it accounted for half of the consumption tax income. According to the ranking of the proportions of the tax revenue of the tobacco industry in the fiscal revenue of various provinces, the top three were Yunnan, Hunan, and Guizhou. It can be seen that the provinces with higher proportions of consumption tax are those in the central and western regions.

If the consumption tax is changed to a local tax, the tax collection link will inevitably be moved backward to the retail link, the change of which will lead to the huge adjustment in the pattern of local interests. On one hand, the consumption tax income of regions that produce dutiable goods of consumption tax (mostly the central and western regions) will decrease greatly, and the urban construction tax and local education surcharges as additional taxes will decrease simultaneously; on the other hand, the consumption capacity in regions with a relatively developed economy is stronger. The consumption tax will become the revenue stream of these regions if the tax is levied in the retail link. The combined action of two forces will further aggravate the fiscal imbalance between provinces, and there is great uncertainty in such changes and duration.

The top five ones with the largest consumption tax increase are Beijing (RMB 37.388 billion), Guangdong (RMB 28.978 billion), Sichuan (RMB 17.805 billion), Fujian (RMB 16.168 billion), and Shanghai (RMB 14.977 billion), respectively, and the top five ones with the largest consumption tax reduction are Yunnan (RMB −40.966 billion), Hunan (RMB −34.283 billion), Jilin (RMB −17.368 billion), Liaoning (RMB −13.944 billion), and Guangxi (RMB −13.037 billion). It can be seen that the biggest beneficiaries of changing the consumption tax to a local tax are economically developed regions, while the economically underdeveloped regions are the worst hit. The regional gap is further widened.

Moreover, if the consumption tax is changed to a local tax, the central government will lose about 14% of its total revenue (calculated according to the consumption tax in 2019). And the ability of the central government to make transfer payments to economically underdeveloped regions will also decrease accordingly. The increasing regional gap will bring hidden concerns to the economic development and improvement of people's livelihoods in underdeveloped regions.

(3) *Higher Requirements Have Been Put Forward for the Tax Administration.* The reason for China to determine the collection of the consumption tax in the production,

commissioned processing, and import links at the very beginning is that both the collection cost and the administration cost are low, convenient for the source control. If the tax is changed to be collected in the retail link, the number of taxpayers will increase exponentially. Even if it can be realized technically, the increase in the collection costs of tax authorities, the taxpayer compliance costs, and the possible loss of tax sources will be tremendous. The state has also taken these practical difficulties into consideration and clearly set conditions in the *Promotion Plan* for the backward shift of the consumption link, that is, “on the premise of controllable administration”; otherwise, it cannot be promoted in a rash moment.

4.4. The Consumption Tax in China Is Not Suitable to Serve as a Shared Tax

4.4.1. Two Ways of Sharing Consumption Tax. According to the investigation results of the Research Group of the State Taxation Administration (2015), within the international scope, there are three methods for the attribution of consumption tax income. The first is the fiscal revenue distribution method (regardless of taxes, all fiscal revenue is shared in proportion, such as Thailand and Austria); the second is the consumption tax sharing method (e.g., in Spain, the consumption tax on alcohol is shared between the central and autonomous regional governments, and the consumption tax on tobacco and energy can be shared among the central, the autonomous regional, and the local governments); and the third is the independent collection of consumption taxes by local governments. On the whole, the consumption tax is dominated by the central tax, and even it is shared, the central government also accounts for a relatively large proportion.

4.4.2. Problems That Need to Be Faced by Tax-Base Sharing

(1) *How to Divide the Tax Base.* There are precedents for dividing by tax base. For example, in the United States, the three levels of federal, state, and local governments levy taxes for different tax items. However, the specialness of China’s consumption tax is that the tax amount is highly concentrated in a limited number of tax items with obvious regional characteristics. Therefore, the division based on tax base will encounter practical difficulties. It is mentioned earlier that punitive or inhibitive commodities (such as cigarettes and wine) are not suitable to serve as local taxes or shared taxes. The total tax amount of tobacco and alcohol in 2018 accounted for 56.1% of the total consumption tax (see Table 7); if shared, there would be only 43.9% to the maximum.

(2) *How to Determine the Base.* It is proposed in the *Promotion Plan* that changing the consumption tax to a local tax will adopt the method of “determining the base and adjusting the increment.” It should be noted that over the years, the growth rate of domestic consumption tax has fluctuated greatly (see Table 6), and the situation in each province is quite different. Therefore, it should be very

TABLE 7: Proportion of the tax revenue of the four tax items in domestic consumption tax (2017–2018).

	Cigarette (%)	Refined oil (%)	Car (%)	Wine (%)	In total (%)
2017	44.7	41.8	7.8	2.3	96.6
2018	52.3	33.8	8.9	3.8	98.8

Data sources: collated according to the *Tax Yearbook of China*.

cautious in choosing which year as the base year. To be specific, if 2015 is taken as the base year to calculate the consumption tax in 2016, if it is collected in the production link, the consumption tax income in 18 provinces will decrease; if it is collected in the retail link, the consumption tax income in 25 provinces will decrease. If 2016 is taken as the base year to calculate the consumption tax in 2017, if it is collected in the production link, the consumption tax income in 14 provinces will decrease; if it is collected in the retail link, the consumption tax income in 15 provinces will decrease. The determination of the base year will make it difficult for some provinces to complete the task of turning over the base in the short term and will have an impact on local financial resources, which should be specially concerned when advancing the reform.

4.4.3. Problems That Need to Be Faced by Revenue Sharing.

The core problem faced by the revenue sharing is how to determine the share proportion. Currently, the academic circle has not reached a consensus on this.

The issue of share proportion is important and sensitive. How to determine it at present and whether it will be adjusted in the future, when, why, and how will it be adjusted in the future will arouse great concern from all sides. If a fixed proportion is adopted, the regional difference will not be narrowed but widen. If a floating or variable proportion is adopted, it should be deeply studied that how will the difficulties of each region, especially those in the economically underdeveloped regions be practically considered and how to prevent the local governments from bargaining with the central government to “make money through liaison offices in Beijing.”

5. Discussion and Conclusion

From the above analysis, it can be seen that China’s financial system reform directions, the functional orientation of China’s consumption tax, and the nature of the consumption tax itself all determine that it is not suitable for the consumption tax to serve as a local tax, and many difficulties will be faced if it is implemented. In that case, is it feasible to change the consumption tax to a central-local shared tax.

For multiple reasons, the regulation effect of the consumption tax is unsatisfactory.

On one hand, restraining externalities requires better tax arrangement. Consumption tax is carried out by way of tax included in price, and the tax rate is complicated. In addition, there is a certain distance from the production link to the consumption link and taxpayers are not clear about how

much consumption tax is included in a pack of cigarettes, a bottle of wine, and a tank of gasoline. Weaker tax salience reduces consumers' perception of tax. And the price elasticity of demand for tobacco, alcohol, and refined oil is very low, which will also partially eliminate the effect of the consumption tax on restraining externalities.

On the other hand, the function in regulating income is closely related to the stage of social and economic development. When the society is in an "olive-shaped" structure (the poor and rich are in the minority, and the middle class is in the majority), the so-called luxuries included in the scope of taxation have become the daily necessities of the middle class, and the function of consumption tax in regulating income will deteriorate and even gradually disappear. The social structure in China is in transition from the "dumbbell shaped" to the "olive shaped," and the middle class is expanding rapidly, so it is actually foreseeable that the function in adjusting income distribution is not as significant as it was.

More importantly, there are many factors that affect economic development, including consumption tax. And the regulation goal of consumption tax is highly generalized. It is difficult to define the effect of regulation, and it is very difficult to detect whether the regulation results achieve the goal. Just because of this, there is a gap between ideal and reality in the regulation effect of consumption tax even in Western developed countries.

Therefore, the regulatory function of consumption tax should be grasped at a macro level. The effect of regulatory function of China's consumption tax is temporarily dissatisfactory, and the reason is not its attribute as a central tax. If it is replaced with a local tax, the regulatory effect will not be better than the current effect.

Regardless of the perspective of China's financial system reform trend or the functional orientation and its own nature, it is not suitable for the consumption tax to serve as a local tax; it has no strong and powerful theoretical support as a shared tax too. Besides, there will be many practical and intractable problems in its implementation. Therefore, under the circumstances where the conditions required by the *Promotion Plan* are not met, it may be a better choice for the consumption tax to serve as a central tax.

Of course, it is emphasized here that the consumption tax is not suitable to become a local tax "on the whole," which does not exclude the rationality of individual tax items to serve as a local tax. Taking cars as an example, the consumption tax in the production link, the consumption tax in the retail link of ultraluxury cars, the consumption tax of the use of refined oil, and the vehicle purchase tax in the retail link all belong to the central taxes currently. The central government receives almost all the advantages from the increase in cars, while the local governments that benefit little (urban construction tax and local education surcharges as additional taxes of consumption taxes) have to take on heavy responsibilities of controlling traffic congestion and vehicle exhaust pollution, resulting in a mismatch between fiscal powers and respective powers. This issue should be solved through the further improvement of the consumption tax system. However, for the time being, its urgency is far

below the goals of strengthening the central fiscal powers and reducing the fiscal imbalance between localities, and so on.

To ease the local financial pressure, it is not necessary to adjust the consumption tax to a local tax or a shared one. On the contrary, it should be achieved through other ways that do not harm the scientificity of the tax system on the basis of developing local economy and expanding the source of taxes (increasing the local share proportion of value-added tax, etc.). If the local governments have performed the expenditure responsibilities that should be undertaken by the central government or jointly undertaken by the central and local governments, they can be solved through transfer payments and other ways.

"Only after polishing can a knife be sharper." In the current severe situation where China's economy faces the downward pressure, it is even more necessary to think calmly, study deeply, and make decisions cautiously, to follow the scientific principles and logic, and respect history and reality; and only in this way can the consumption tax reform promote China's steady and long-term economic development more effectively.

Data Availability

All the data contained in this study can be obtained by contacting the corresponding author. Readers can also inquire part of the original data and the results of data processing in this paper.

Conflicts of Interest

The authors declare that they have no conflicts of interest regarding the publication of this paper.

Acknowledgments

This research has been supported by the project entitled "Analysis on the Attribution of Consumption Tax Income in China under Economic Downward Pressure" (no. HB19GL054), which was funded by the Social Science Foundation of Hebei Province.

References

- [1] D. Chu, Y. Han, and Q. Yao, "Consumption tax reform in China: a perspective from revenue sharing," *Taxation Research*, vol. 4, 2015.
- [2] Z. Xie, N. Xia, and H. Wu, "Reform of transformation of consumption tax from a central tax to a local tax," *Taxation Research*, vol. 6, 2020.
- [3] Q. Feng, "Positioning the consumption tax reform from the perspective of overall reform," *Taxation Research*, vol. 1, 2017.
- [4] K. Jia and X. Zhang, "Three functions of Chinese consumption tax: effect evaluation and policy adjustment," *Contemporary Finance & Economics*, vol. 4, 2014.
- [5] P. Peng and H. Tian, "Possible interaction between the adjustment of refined oil consumption tax and the environmental protection effect," *Journal of Chinese Academy of Governance*, vol. 6, 2015.

- [6] Y. Gao and Y. Liu, “A research on energy-saving effects of the consumption tax in China—taking oil consumption as an example,” *Taxation Research*, vol. 12, 2018.
- [7] H. He, “An empirical analysis of the income distribution effect and welfare effect of consumption tax in China,” *Taxation Research*, vol. 4, 2016.
- [8] A. Zhao and M. Xiao, “An analysis on the adjusting effect of consumption tax on the urban resident income gap,” *Taxation Research*, vol. 5, 2017.
- [9] Y. Gao and P. Li, “The characteristic and common feature of excise duty in some OECD countries and their implications for China,” *International Taxation in China*, vol. 5, 2015.
- [10] Y. Yin and Y. Zhang, “Can consumption tax become the major local revenue source?” *Taxation Research*, vol. 5, 2014.
- [11] R. Han and S. Chang, “Is it suitable for consumption tax to become a local tax?—based on the investigation of 30 alcohol companies in Shandong province,” *Taxation Research*, vol. 5, 2017.
- [12] T. Ouyang, “Reconstruction of the central-local consumption tax distribution systems,” *Research on Financial and Economic Issues*, vol. 1, 2018.
- [13] X. Hong, “The question of consumption tax revenue attribution: why should it not be localized?” *Taxation and Economy*, vol. 5, 2018.
- [14] The Official Website of the National Bureau of Statistics, *Preliminary Accounting Results of GDP for the Second Quarter and the First Half Year of 2020*, National Bureau of Statistics, Beijing, China, 2020.