

Quantitative Measurement of Chinese-style Fiscal Decentralization

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Abstract

Chinese fiscal decentralization is not a strict legal sense of decentralization, but a kind of "de facto decentralization". Choosing a single dimension of decentralization indicators can not accurately measure the degree of fiscal decentralization in China. Based on the consideration of whether fiscal decentralization should consider transfer payment and extra-budgetary income, and how to eliminate the impact of population size and economic scale, this paper finally chooses the index of total fiscal revenue inside and outside the per capita budget and the index of average fiscal expenditure inside and outside the per capita budget as the measure of Chinese-style fiscal score).

Keywords

Chinese-style Fiscal Decentralization, Measurement.

1. Introduction

The development process of China's financial system is briefly described as follows: from the highly centralized financial "collecting and controlling expenditure" system in the early liberation period to the comparatively decentralized financial contracting system in the mid-1980s, and then to the relatively centralized tax-sharing system in the mid-1990s (1994). In recent years, with the State Council's "On Promoting the Central Government" With the issuance of the Guiding Opinions on the Reform of the Division of Local Financial Authority and Expenditure Responsibility (No. 49 of Guofa [2016]), the central and local financial relations have entered the post-tax-sharing era. Fiscal decentralization in this paper refers to Chinese-style fiscal decentralization.

China-style fiscal decentralization has the following characteristics: Fiscal decentralization is subordinate to administrative centralization, economic decentralization coexists with political centralization; Local governments bear most of the expenditure responsibility and have a considerable degree of autonomous decision-making power on the use of financial funds; and fiscal revenue power is highly concentrated in the central government, local governments. The government has no right to decide the tax rate and tax base of local taxes. Fourthly, the gap of local fiscal revenue and expenditure is compensated by the transfer payment of the central government and the extrabudgetary income of the local government. Therefore, China-style fiscal decentralization is not a strict legal sense of decentralization, but a "de facto decentralization", that is, local governments only have de facto partial discretion in fiscal revenue and expenditure.

2. Selection of Chinese-Style Fiscal Decentralization Indicators

After the reform of the tax-sharing system in 1994, according to the tax-sharing scheme, most of the fiscal revenue was allocated to the central government, while the fiscal expenditure was not collected, and the local government was still responsible for it. Local governments, with less

than 50% of their fiscal revenue, maintain nearly 70% of their fiscal expenditure, which is unsustainable. They rely heavily on transfer payments from the central government. In 2016, the central government paid 5803 billion yuan in tax returns and transfer payments to local governments.

Among the numerous literatures on fiscal decentralization, different scholars have used different indicators of fiscal decentralization, and their research results are also different. There are three kinds of indicators to measure fiscal decentralization in the existing literature: revenue decentralization index, expenditure decentralization index and financial autonomy index. The first two indicators are described by local fiscal revenue (expenditure)/national (central) fiscal revenue (expenditure). For example, Zhou Ye'an and Zhang Quan (2008) [1] use the ratio of per capita provincial expenditure to total fiscal expenditure to measure fiscal decentralization; Zhang Fen and Zhao Xiaojun (2016) [2] think that fiscal revenue is used to calculate fiscal decentralization, focusing on reflecting the degree of separation of "financial power", fiscal expenditure is used to calculate fiscal decentralization, focusing on reflecting. The separation degree of "power" and the method of correlation coefficient are used to compare the optimal fiscal revenue decentralization and fiscal expenditure decentralization indicators: the proportion of local fiscal revenue, the average index of fiscal expenditure at the same level in the budget; the third index is described by the local government's own income/total expenditure at the same level, reflecting the local government's own. For example, Guo Ju (2016) [3] measures fiscal decentralization by the sum of the central government's controlling part of provincial revenue and expenditure. In addition, Chen Shuo and Gao Lin (2012) [4] compared the fiscal decentralization indicators through empirical reassessment, and concluded that none of the indicators can reflect the cross-era changes in the relationship between central and local governments, as well as the cross-regional differences. Indicators should not be mixed.

First, how to eliminate the impact of population size and economic scale. The first issue involves the selection of aggregate and per capita indicators. When the proportion of local fiscal expenditure level is used to measure the degree of fiscal decentralization, it will lead to large population, good economic development and high degree of fiscal decentralization. This is not appropriate. Indicators per capita were used for this choice. [5] The second question refers to the way of dealing with Chu Deyin and Han Yiduo (2018)[6]. After the index of per capita decentralization is multiplied by a reduction factor of economic scale $[1-(gdp_i/gdp_N)]$, the reduction factor of economic scale is inversely proportional to the proportion of GDP of a province in the national GDP. Second, the denominator should not use national data, which will lead to the same denominator, and then the correlation coefficient between the provincial proportions is close to 1. [7] Furthermore, fiscal decentralization reflects the fiscal decentralization of the central and local provincial governments, so the data of the central government is more accurate. [2] Thirdly, to measure whether fiscal revenue decentralization should consider extrabudgetary income, which generally includes administrative fees, government funds, income of state-owned enterprises and competent departments (extrabudgetary income involves multiple caliber adjustments). In our country, it is basically at the discretion of local governments to compensate for insufficient local financial expenditure. Therefore, we should consider when measuring income decentralization. [8]

Fourthly, to measure whether fiscal revenue decentralization should consider transfer payment, Zhang Yan and Gong Liutang (2005) [9] pointed out that when central transfer payment is a corresponding or conditional transfer payment, local governments need to use transfer payment funds for fixed purposes; and central transfer payment is a package of transfer payment or non-conditional transfer payment. In the case of sexual transfer payment, local governments have the right to allocate funds freely, which is equivalent to local income. In our country, tax return is equivalent to the return of shared tax of central and local governments, which can be regarded as local income at the local level. In addition, after the

implementation of the tax distribution system in 1994, general transfer payment, special transfer payment and policy transfer payment appeared. The right to use general transfer payment is in the local government, the right to use special transfer payment is in all departments of the State Council, and the central government uniformly allocates policy transfer payment according to the situation. [10] When calculating the index of fiscal expenditure decentralization, if we do not deduct transfer payment, we may overestimate the degree of decentralization of local finance in underdeveloped areas, such as Ningxia, Qinghai and other minority areas, which rely heavily on central financial subsidies to support local expenditure, while deducting transfer payment may underestimate the finances of economically developed areas. Decentralization. This paper uses Zhang Yan and Gong Liutang (2005) [9] for reference and adopts the average method.

Fifth, the proportion of people is not suitable for decentralization of management. For the following reasons: Firstly, extra-budgetary revenue is an important part of the funds that local governments can freely allocate, and general public budget (budget) revenue includes tax revenue and non-tax revenue. For example, in 2016, Local non-tax revenue accounts for 25.85% of local income. Therefore, the degree of decentralization of tax administration is unreliable, and some of the taxes collected by the State Tax Bureau belong to the central and local shared taxes, and the local tax departments have been merged at present; furthermore, the premise of measuring the degree of fiscal decentralization by employee ratio of public administration and social organizations is that each employee has the same management range and management ability. Fiscal decentralization can only be reflected by the proportion of employees.

3. Chinese-Style Fiscal Decentralization Indicators

$$RR_i = \frac{\frac{BR_i + WR_i}{P_i}}{\frac{BR_c + WR_c}{P_N}} \times [1 - (gdp_i / gdp_N)] \quad (1)$$

$$DC_{all} = \frac{\frac{BC_i + WC_i}{P_i}}{\frac{BC_c + WC_c}{P_N}} \quad (2)$$

$$DC_{net} = \frac{\frac{BC_i + WC_i}{P_i} - \frac{Transfer_i}{P_i}}{\frac{BC_c + WC_c}{P_N}} \quad (3)$$

$$DC_{ave} = \frac{DC_{all} + DC_{net}}{2} \times [1 - (gdp_i / gdp_N)] \quad (4)$$

BR_i: Budgetary revenue at the level of province i;

WR_i: extrabudgetary revenue at the level of province i;

BR_c: fiscal revenue within the budget of the central government;

WR_c: extrabudgetary fiscal revenue at the central government;

BC_i: fiscal expenditure within the budget of the province i;

WC_i: extrabudgetary fiscal expenditure at the province i;

BC_c: fiscal expenditure within the budget of the central government;

WC_c: extrabudgetary fiscal expenditure at the central government;

Transfer_i: Central subsidy income of Province i;

P_i: Population scale of the first province;

P_N : Population scale of the whole country;
 gdp_i : gross domestic product of province i ;
 gdp_N : gross national product.

The index of revenue decentralization is the index of total fiscal revenue at the same level inside and outside the per capita budget, which is obtained by calculating the proportion of government revenue at the same level inside and outside the per capita budget of each province to that at the same level inside and outside the per capita central budget.

Expenditure decentralization index The average index of fiscal expenditure at the same level inside and outside the per capita budget DC_{ave} is the arithmetic average of the index of fiscal expenditure at the same level inside and outside the per capita budget DC_{all} and the index of fiscal expenditure per capita deducting net transfer payment at the same level DC_{net} . This index takes into account the per capita financial expenditure at the same level including the central subsidy income and the per capita financial expenditure at the same level excluding the central subsidy income. The larger the theoretical value, the higher the degree of decentralization of local finance.

The results of this study provide a basis for the follow-up study of China's market. On the basis of this study, we can continue to study the relationship between fiscal decentralization and economic structure, the relationship between fiscal decentralization and local debt, and the relationship between fiscal decentralization and urbanization.

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