Governmental Transition and Consumption Inequality in Urban China: 1988-2009

MA Fengming[a],*

[a]School of Political Science and Administration, Southwest University, Chongqing, China.
*Corresponding author.

Abstract

By summarizing the research data of urban households in S City in China, this thesis mainly studies the impact of governmental transition on consumption inequality and it finds that government transition have certain impacts on social inequality. Government role, in the process of transiting gradually from the economic construction-oriented government to service-oriented government, has increased spending on education, health, social security and other public welfares. Relative fairness in education and health spending among different units of the system helps to narrow the gap of social inequality. However, spending on social security did not play the role of reducing inequality through redistribution, but has exacerbated the social inequality.

Key words: Governmental transition; Consumption inequality; Public welfare investment

1. BACKGROUND AND HYPOTHESIS

China's market-oriented reform is a process of bilateral interaction between the state and market (Zhou, 2000). Since the reform, the government role has been in a gradual transition from the economic construction-oriented government to service-oriented government. Since the 1990s, many a researches and summaries have been done on the transition of the government role by the academic field (Lin, 1995; Oi, 1995; Walder, 1995). Because of the influence of the traditional planned economy system, the government has been in a leading position and has showed its powerful strength in the process of China's economic and social development. The government role has a significant influence on social inequality (Xie, 2010). In the process of social transformation, the government's function is mainly manifested in two aspects: first, the government guides the modern society transition from agricultural society to industrial society, from planned economy to market economy; second, the government realizes its transition according to the demand of the economic and social development (Shen & Ma, 2008). In the process, great changes have taken place in the role of government, gradually shifting from the "economic construction-oriented government", who directly participate in economic production activities to the "service-oriented government", who provides effective social public goods and public services.

Faced with the reality of beneficial decline in state-owned enterprises, and in order to realize the goal of economic growth, the government, in the middle of 1990s, promoted the reform of state-owned enterprises to improve the efficiency of economic operation, on the other hand, actively promoted the development of the non-public economy. The reform of state-owned enterprises led to a sharp drop in the quantity of state-owned enterprises and their employees, and the traditional planned economy began to decline (Liu, Wang & Zhang, 2008). There emerged a large number of laid-off workers in cities. With the development of the non-public economy, the proportion of employment personnel in state-owned and collective units showed a big drop among all the employees, from 99.2% in 1980 to 20.5% in 2009. Cai (2010) studies have

shown that these changes will lead to the rise of social inequality. By using the CHIP data to analyze the unequal relationship between the reform of state-owned enterprises and cities, Meng (2004) found reconstruction of state-owned enterprises is the the main influence factors of city rise in inequality in 1995-1999.

The government transition is mainly manifested on government spending and its structure changes. Economic construction-oriented government's fiscal spending is mainly used for economic construction and the government administrative expenses, while public-service-oriented government increased the investigation on education, health, social security and other public welfare. With the improvement of the national economy, people have higher and higher demanding to the public welfare, which inevitably requires the government to play a more important role. Due to the rigidity of public welfare, the social members have an increasing requirement to government for the welfare, so the government will continue to expand the scale of government to increase the public welfare supply ability (Zhang, 2004). But there are still debates over whether scale of government and expansion of fiscal expenditure will reduce social inequality in practice. It is difficult to say whether it is appropriate for a certain public expenditure scale, and whether it helps to narrow the social inequality gap due to the local government officials' own interests, such as their promotion, etc.. Expansion of government power made the mode of allocation from "market-oriented" to "power-oriented", which led to the widening of social inequality. Chong and Liu (Liu, 2008) studies' on China's rural areas showed the expansion of government spending, while effectively suppresses the poorer rural income inequality, but generally exacerbated the rural income inequality. Cai approved that the scale of government and spending has no effect on urban social inequality with a survey, which is from the national bureau of statistics urban household from 1992 to 2003.

Social security and other public welfare investment are modification and supplement to the primary distribution results done by the government, the purpose of which is to reduce social inequality. But public goods providers (the government) are not ultimately bear of public product cost; as a result, it is easy to cause the emergence of soft budget constraint. Cole Nye argues that the public enterprises under the socialist system just blindly pursue output in economic activity, but don't emphasize efficiency, so "budget" cannot effectively restrain the enterprise (Kornai, 1979). There is a similar phenomenon in the government's spending on public welfare, that is, the government budget cannot form a strong constraint on the government behavior. On the contrary, the government will pursue maximum industrial scale of the public product, but not consider minimizing the cost in order to show off the achievements and earn more supports. In the long run, this will lead to the waste of public product supply, and damage efficiency. Therefore, the investment of public welfare would not have the effect to narrow the gap of social inequality if there is a soft budget constraint. According to the above analysis, we assume that:

Hypothesis 1: A decreasing employment proportion of the state-owned units will cause the rise of social inequality.

Hypothesis 2: The expanding scale of government helps to reduce income inequality.

Hypothesis 3a: An increase on public welfare investment will help reduce social inequality.

Hypothesis 3b: If there is a soft budget constraint, an increase on public welfare investment, will not reduce social inequality.

2. DATA, VARIABLES, AND MODELS

2.1 Data
The data of this thesis came from the national bureau and it is the survey on households in S city, including 22 years' original data from 1988 to 2009. This survey uses stratified, multi-stage, and probability proportional of size (PPS) random isometric methods to select samples, and there are 6,203 valid samples. The survey content includes the basic information of family members and family, family income and consumption expenditure, etc., among all these, personal basic situation, income and social security expenditure is collected by an individual unit, and consumption is done by a family unit. This thesis is to testify the above hypothesis through data summary and generation time series.

2.2 Variables

2.2.1 Dependent Variable
Dependent variable here is social inequality, measured by the Gini coefficient of annual consumption spending.

2.2.2 Independent Variable
a. The unit's system, which is measured by the ratio of employment personnel in the state-owned enterprises in this sample. Throughout calculation, the employment proportion in state-owned enterprises showed a trend of gradual decline, with an average rate of 0.63, a minimum rate of 0.21, and a maximum rate of 0.92.

b. The scale of government, which is measured by proportion of government spending in the GDP. Through calculation, the proportion of government spending in GDP has dropped since 1994, and to the lowest in 2004. Afterwards, it gradually increases, with an average rate of 0.12, a minimum rate of 0.09, and a maximum rate of 0.15.

c. Public welfare spending, whose level is measured by its proportion in the state fiscal expenditure, including per capita spending on education and health, and social security in each year. This thesis has made logarithmic

procession on per capita spending on education, health and social security in order to eliminate the heteroscedasticity of time sequences.

2.3 Model

2.3.1 Prais Model

This model revises the existing first-order autoregressive errors by using generalized least squares (Prais & Winsten, 1954). The model is as follows:

$$Y_t = \beta X_t + \mu_t \qquad (1)$$
$$\mu_t = \rho \mu_{t-1} + \varepsilon_t \qquad (2)$$

Y_t is the value when the consumption of Gini coefficient of the dependent vibrant is t, X_t is the disturbance *ve*stor, the matrix of the independent variable values, and μ_t is disturbance vector, ρ is the first-order autocorrelation parameter.

2.3.2 Granger Causality Test

This test explains that, in a vector autoregressive model, variables do not include any of the current variable, but being the lag item of explanation variable, so as to test whether the planned economy, government scale and public welfare spending is the granger cause of the change of the Gini coefficient.

3. ANALYSIS OF THE RESULTS

3.1 Results of Prais Model Regression

The values of three models of Durbin - Watson were 1.95, 1.78 and 1.95, respectively, and the test showed that after model fitting, there were no significant first-order autocorrelation left behind. The result of Model 1 shows that the decrease of proportion of personnel in state-owned enterprises will make the Gini coefficient uplifting, which is in accordance with the research theory of Cai and Meng. The expansion of government scale decreased the Gini coefficient. After applying the per capita social security expenditure and per capita education, health expenditure into Model 2, employment proportion of state-owned enterprises do not have significant impacts on the Gini coefficient, which shows the main influence of planned economy on Gini coefficient being that the different share of per person social security expenditure and per person education, health expenditure. When per capita social security expenditure and per capita education health expenditure, employment proportion of state-owned enterprises has no impact on the Gini coefficient. Based of model 1, the social security expenditure proportion and the proportion of education and health spending were added to Model 3. But these two variables have no significant influence on the Gini coefficient, while the planned economy still has a significant effect on the Gini coefficient. The Gini coefficient is in growth with the decline of the state-owned enterprise employment.

Table 1
Prais Model Result of Gini Coefficient

Variable	Model 1	Model 2	Model 3
Proportion of employees in state-owned enterprises	-0.171***	-0.017	-0.111**
	(0.013)	(0.038)	(0.041)
Government scale	-1.022***	-0.648**	-0.947***
	(0.266)	(0.225)	(0.259)
Logarithm of per person's social security expenditure		0.066***	
		(0.016)	
Logarithm of per person's education and health expenditure		-0.043***	
		(0.012)	
Proportion of social security expenditure			3.410
			(2.345)
Proportion of education and health expenditure			0.088
			(0.198)
Constant	0.519***	0.415***	0.432***
	(0.033)	(0.050)	(0.071)
Durbin-Watson	1.95	1.78	1.89
Adjusted R^2	0.897	0.937	0.915
F	97.419	109.445	60.873

Note. The figures in parentheses are standard errors, $* p < 0.1$, $* * p < 0.05$, $* * * p < 0.01$ (two-tailed tests).

The above results show that the assumption 1 is not fully supported. In order to promote economic growth and efficiency, the government made state-owned enterprises employment population fell sharply, through restructuring and reorganization of state-owned enterprises and

encouraging the development of non-public economy, which increased social inequality, which was not affected significantly when the government controlled the per capita expenditure on social security, education and health. The planned economy is still the important mechanism of

social inequality, but in the process of marketization and institutional transformation, larger changes has happened on the ways to influence the social inequality. Before reform and opening up, the enterprise determines all aspects of the individual's daily life, political life, work, etc. In the early stage of marketization, urban residents are still arranged by country and unit housing and jobs, etc. (Xie, 2010). With the advancement of marketization and government transformation, the influence of enterprise system on the social inequality is mainly caused by the large differences in rights to share the public welfare between state-owned and non-state-owned enterprises. The expansion of government's scale helps reduce social inequality, and hypothesis 2 is true, which suggests that the government still plays a leading role in the economic and social development. Theoretically, the increase of public welfare investment helps reduce inequality, but assumption 3a is not fully supported. The increasing per capita spending in education and health reduced social inequality, which showed that urban residents enjoy a relatively fair share to education and health resources. But social security did not play the role to reduce inequality by redistribution; instead, it has exacerbated social inequality. Hypothesis 3b is true. There is soft budget constrain of the government spending on public welfare. Although the scale of supply is expanding, it didn't play effective role at all. The status China's "strong government" made the public welfare in a power-oriented distribution, which has great difference in different groups, and thus, exacerbated the social inequality.

3.2 Granger Causality Test

Based on the vector autoregressive model, this thesis adopts Granger causality tests to determine whether there is a causal relationship between variables and Gini coefficient, with the lag order number being 1. Table 2 and Table 3 are respectively the Granger causality test results added with per capita expenditure on social security as well as on education and health, and expenditure proportion on social security as well as on education. Test results show that, under the level of 0.1, the scale of government, per capita social security expenditure, per capita education and health spending are the granger cause of the Gini coefficient, and the lag value of the above variable has a significant effect on the Gini coefficient. Expenditure proportion on social security and that on education are not the granger reason of Gini coefficient. The proportion of state-owned enterprises employment is not the granger reason of the Gini coefficient when per capita expenditure on social security, education and health is being controlled. However, it is the Granger that works when proportion expenditure on social security, education and health is under control.

Table 2
Granger Causality Test of the Gini Coefficient in the Vector Autoregressive Model

Variable	X^2	DF	P
Proportion of employees in state-owned enterprises	0.737	1	0.391
Government Scale	4.952	1	0.026
Per person's social welfare expenditure	4.984	1	0.026
Per person's education & health expenditure	6.959	1	0.008

Table 3
Granger Causality Test of the Gini Coefficient in the Vector Autoregressive Model

Variable	X^2	DF	P
Proportion of employees in state-owned enterprises	6.208	1	0.013
Government scale	3.540	1	0.060
Per person's social welfare expenditure	9.1×10^{-5}	1	0.992
Per person's education & health expenditure	0.188	1	0.664

CONCLUSION

The government transition had certain influence on social inequality. In the gradual process of transiting from "economic construction-oriented government" to "service-oriented" government, the government increased expenditures on education and health, social security and other public welfare. Relatively fair expenditures on education and health among different unit systems, contribute to reducing social inequality. But spending on social security did not play a role to reduce inequality by redistribution, instead intensified social inequality. Considering the soft budget constraint of public welfare spending, the role of government in social security shall be restored to promote social justice. The government's important responsibility is to reduce inequality through redistribution. Therefore, the government should not only increase the investment of public welfare, but also need to evaluate the efficiency and effect of public welfare investment in the process of transition from "economic construction-oriented" government to "public service-oriented" government, in order to realize the equalization of public services.

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