Power-Induced Corruption and Income Inequality: An Empirical Analysis in China

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Abstract

This paper studies how corruption and growth affect income distribution by using time series data from 1978 to 2010 in China. The analysis reveals that corruption significantly increases the degree of income inequality, while the economic growth is helpful to decrease the degree of income inequality. So, the key to decreasing income inequality is to prevent and punish corruption, reduce the monopoly of the administrative powers of economic and social resources, reduce the administrative powers of market intervention, gradually push forward the reform of political system and strengthen the democratic supervision of administrative power. In the meantime, the government should continue to deepen the market-oriented reforms, accelerate economic development and improve people's income share of national income to narrow the income gap.

Keywords

Public officials, power corruption, economic growth, income inequality.

Introduction

The current income distribution system in China is arranged according to the rule of work as the dominant segment; a variety of modes of distribution coexists, such as capital, labour, technology and management. Obviously, power is not involved in income distribution. However, when public officials use their public authority to interfere with the allocation, especially when the power holders capitalize their power and take the public resources into transactions, then power will affect the efficiency of resource allocation, thereby changing the pattern of distribution of benefits, and even make a significant impact on the distribution of income.

In the long term, the wage level of civil servants in our country is not high compared to other industries, and the growth rate of their wage is also quite low, especially compared to the nouveaux riches. In view of the fact that the overall quality of the civil servants' performance is higher than most enterprise employees, the wages of public officials cannot reflect their workload and responsibilities. There is, therefore, a serious distortion in the incentive system. In this case, some of the civil servants are likely to seek some extrawage income. In order to obtain such informal wage income, certain sectors of civil servants may take out some rent-earning activities by using their public powers and resources. When public officials or civil servants take advantage of their power to engage in market activities, and use their influence and public resources to participate in the market transactions, influence is bound to yield the excess revenue. However, this excess revenue is at the expense of public interest. Actually, this shows that corruption may affect the distribution of benefits, but not in a general sense. This allocation is based on the privileged class using their public influence to participate in the economic resource allocation, by ways of illegal or nonstandardized operations, and is extremely unfair and works against social justice. As a result, misuse-of-office-induced corruption affects both the allocation of resources and income distribution, and enlarges the distortion of benefits distribution.

In the empirical research, Chen & Li (2010) used panel data for 30 provinces, municipalities and regions (excluding Tibet) during the period of 2000-2007 to study the impact of corruption on income inequality. Chen and Li respectively took

the Gini coefficient, Theil index, the coefficient of variation, and the logarithm of the coefficient of income variation as an indicator of income inequality on the one hand, and the ratio of the annual filing numbers, recorded at the Peoples' Procuratorates, of embezzlement and bribery, cases of malfeasance in office to the number of public officers, as well as the ratio of the number of involved offenders to the number of public officials as indicators of the level of corruption in China on the other. The study found that corruption is the main reason that causes the income inequality between the city residents. Chen and Li estimated the illegal and abnormal earnings (IAEs), added this part of income to the normal income, and then finally calculated that the Gini coefficient increased from 0.403 to 0.493, and the income inequality increased by 22.49%, indicating that the IAEs increase income inequality.

Tanzi (1995) believes that corruption distorts the redistribution functions of the government. Furthermore, when the corruption-related earnings are held by those groups which are closely linked with government officials, then most of these groups are in high-income brackets. Blackburn & Forgues-Puccio (2007) show that the correlation between corruption and income inequality is positive. When the high earners pay bribes to corrupted officials to evade tax, then the government revenue will reduce, so that the redistribution functions of the government will be weakened. At the same time, the income gap between the highincome and low-income people will be wider than in non-corrupted environment.

Mehrara, Firouzjaee, & Gholami (2011) use panel data for 11 OPEC countries, as well as 32 OECD countries during the period of 2000-2007 and find that corruption increases the degree of inequality in the OPEC countries, but stands in a significantly negative correlation with income inequality in the OECD countries. Using the multinational panel data during 1980-1997, Gupta, Davoodi, & Alonso-Terme (2002) find that corruption widens the income gap, increases poverty, inhibits the economic growth rate, distorts the tax system and programs which benefit the poor people, worsening the human capital gap, and increasing the uncertainty during the escalation of the phenomenon. They demonstrate that these are the main reasons that raise the degree of income inequality, and policies which reduce corruption may restrain income inequality and poverty. Li, Xu, & Zou (2000) and Chong & Calderón (2000) discover that corruption affects income distribution in an inverted U-shaped form: corruption in high-income countries maintains a positive correlation with income inequality, while corruption in low-income country stands in a negative correlation with income inequality. Based on the data for OECD, Asian, African and Latin American countries Gymiah-Brempong & Gymiah-Brempong (2006) and Glaeser & Saks (2006), Dincer & Gunalp (2008) based on the data for America, all find that corruption is an important reason which increases income inequality. Ullah & Ahmad (2007) use panel data for 71 developed and developing countries during the period of 1984-2002 and find that corruption not only affects economic growth, and also affects income distribution, so that it increases the degree of income inequality.

This paper is organized as follows: Section 1 presents the situation of power corruption and income inequality in China. Section 2 empirically analyses the effect of the power corruption on income inequality. Finally, section 3 summarizes and proposes conclusions in terms of policy.

1. An analysis of power corruption and income inequality in China

1.1. The wage level of civil servants and public officials

Before the analysis of corruption and income inequality, it is necessary to consider the wage situation of the public officials.

The per capita wage of public officials increased from 655 RMB yuan in 1978 to 38242 RMB yuan in 2010. The average salary of civil servants is 1.05 times the national average wage of urban workers during 1978-2010, and the ratio has not changed much. Over this period, the per capita wage of civil servants grew 1.72 times the per capita GDP in comparison with 1978, then decreased to 1.08 times in 1996, and increases to 1.49 times in 2002, and finally decreased to 1.28 times in 2010 (see Figure 1).

Next, we analyzed the industry ranking of the per capita wage of public officials. By ranking the annual per capita wages in various industries, we can find that the average wage of public officials ranked 7^{th} in 16 industries in 1978, took up the best ranking at the 5^{th} place in 1983 and the worst, at the 13^{th} , in 1988. After that, the ranking increased gradually and took up the 7^{th} place in the ranking till 2002. Overall, the ranking of public officials' per capita during 2003-2010 fluctuated from 7 to 11 in 19 industries.



Figure 1 The ratio of the average wage of public officials to average wage of employed persons in urban environments and to the per capita GDP.

Source: China Statistical Yearbook Database, 2010

The analysis above shows that the average wage of public officials was only slightly higher than the national average wage of the industries during 1978-2010. However, by comparing the ranking of the average wage of the various industries, we can find the average wage of public officials ranked at the central position in general.

As the wages of public officials are relatively low, and the wage gaps between different levels of officials are small, so the wages cannot reflect the public officials' abilities and contributions from every level. Besides, the average wage of public officials does not have any priority in relation to other industries, so some bad consequences may arise. For example, government agencies may lose or cannot attract talented people, which leads to a decline in the quality of government services. Moreover, some public officials use their influence to interfere with income distribution, impose monopoly on some categories of resources, let rent and rent-seeking and so on. They achieve lot of abnormal income by all means so that distort the income allocation and increase the income inequality. In addition, it is a motive for corruption.

1.2. Power-induced corruption in China

It is difficult to obtain and estimate information on corruption, as individuals involved in corruption activities do not wish to be identified. Hence, it is really hard to estimate the accurate scale and scope of corruption. However, we can still use the information published by the discipline inspection and supervision organs, the prosecutorial organizations and judicial organs annually to analyze the situation of corruption to a certain degree in our country, including the number of public officials violating law and discipline cases, suspected of the crime of corruption, bribery and malfeasance cases, the trial corruption cases, and the number of officials and money which are involved in these cases.

Here, we only use the data published by the interim report of the Supreme People's Procuratorate every calendar year and the *China Statistical Yearbook* to analyze the changing trends of corruption since the reform and opening up in China.

Figure 2 shows the cycle trend of the number of corruption cases filed by the discipline inspection and supervision organs during 1980-2010. From that we can see the number of corruption cases changed substantially before 1990, and the period of 1990-1998 is the peak period of corruption activities. After 1999, the number of corruption cases decreased and has maintained a relatively stable trend since.



Figure 2 The trend in the number of corruption cases.

Source: Based on the interim report of the Supreme People's Procuratorate every calendar year, the China Statistical Yearbook of the relevant years, and the Chinese Procuratorial Yearbook of the relevant years

The number of cases of bribery and malfeasance increased from 7000 in 1980 to 63953 in 1995, and then decreased to 32909 in 2010. During this time, the number of major cases increased from 89 in 1980 to 48066 in 1997, and then decreased to 18224 in 2010. In addition, there were 50000 people in total who were former leaders at section and country level involved during 1980-2010, including 3000 department and bureau level officials, and nearly 100 provincial and ministerial officials. Incurred economic losses in the period 1983-1987 1.63 billion RMB yuan, incurred economic losses in the period 1998-2002 amounted to 22.92 billion RMB yuan, incurred economic losses in the period 2003-2007 amounted to 24.48 billion RMB yuan, while incurred economic losses in 2009 and 2010 amounted to 7.12 billion and 7.4 billion RMB yuan respectively.

Figure 3 reports the trend in the number of people involved in corruption cases who were

former leaders at section and country level during 1988-2010. We can see that the number of people increased from 194 in 1988 to 2903 in 1997, decreased to 1714 in 1998, and then increased to the peak amount of 3375 in 2002.¹ After that, the number of people decreased to an average amount of 2700 and levelled off.

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Figure 3 The trend in the number of people involved in corruption cases who were former leaders at section and country level.

Source: Based on the interim report of the Supreme People's Procuratorate every calendar year, the *China Statistical Yearbook* of the relevant years, and the *Chinese Procuratorial Yearbook* of the relevant years

1.3. Corruption Perception Index (CPI) of China

Above, we analyzed the scale of corruption in our country objectively, and now we will use subjective indicators to analyze it. There are numerous subjective indicators to estimate the scale of corruption in one country, where the Corruption Perception Index published by Transparency International (TI) from 1995 is the most influential and representative one. Besides, TI also published a Bribe Payers Index (BPI) to describe corruption. There are many other international organizations publishing a variety of subjective indicators, such as the Control of Corruption Index published by the World Bank, the Bribery, Corruption and Transparency indices published by the World Economic Forum, Irregular Payment, Legal Corruption, Bribes and Kickbacks indices published by the Swiss International Institute for Management Development, Business International Index, the corruption index published by International Country Risk Guide and so on. In this article, we use CPI to analyze the scale and scope of corruption in China.

The Transparency International investigates the views of observers from all over the world, including entrepreneurs, risk analysts and the general public, and then scores countries and territories based on how corrupt their public sector is perceived to be on a scale of 0-10, where 0 means that a country is perceived as highly corrupt and a 10 means that a country is perceived as very clean. Usually we take the CPI score of 5 as a critical value. Specifically, when the CPI of a country is between 8 and 10, then it is a clean country; when the CPI is between 5 and 8, then it is a less clean country; when the CPI is between 2.5 and 5, then it is a country with serious corruption; when the CPI is less than 2.5, then it is a country with extreme corruption.

Table 1 The CPI scores and rankings of China, 1978-2010

| Year | CPI | Score | Rank | Country No. | Year | CPI | Score | Rank | Country No. |
|------|------|-------|------|-------------|------|------|-------|------|-------------|
| 1978 | 5.78 | 4.22 | | | 1995 | 2.16 | 7.84 | 40 | 41 |
| 1979 | 5.77 | 4.23 | | | 1996 | 2.43 | 7.57 | 50 | 64 |
| 1980 | 5.73 | 4.27 | | | 1997 | 2.88 | 7.12 | 41 | 52 |
| 1981 | 5.66 | 4.34 | | | 1998 | 3.5 | 6.5 | 52 | 85 |
| 1982 | 5.57 | 4.43 | | | 1999 | 3.4 | 6.6 | 59 | 99 |
| 1983 | 5.45 | 4.55 | | | 2000 | 3.1 | 6.9 | 63 | 90 |
| 1984 | 5.3 | 4.7 | | | 2001 | 3.5 | 6.5 | 58 | 91 |
| 1985 | 5.14 | 4.86 | | | 2002 | 3.5 | 6.5 | 59 | 102 |
| 1986 | 4.96 | 5.04 | | | 2003 | 3.4 | 6.6 | 66 | 133 |
| 1987 | 4.77 | 5.23 | | | 2004 | 3.4 | 6.6 | 71 | 146 |
| 1988 | 4.57 | 5.43 | | | 2005 | 3.2 | 6.8 | 78 | 158 |
| 1989 | 4.35 | 5.65 | | | 2006 | 3.3 | 6.7 | 70 | 163 |
| 1990 | 4.3 | 5.7 | | | 2007 | 3.5 | 6.5 | 72 | 179 |
| 1991 | 3.94 | 6.06 | | | 2008 | 3.6 | 6.4 | 72 | 180 |
| 1992 | 3.58 | 6.42 | | | 2009 | 3.6 | 6.4 | 79 | 180 |
| 1993 | 3.03 | 6.97 | | | 2010 | 3.5 | 6.5 | 78 | 178 |
| 1994 | 2.46 | 7.54 | | | | | | | |

Note: The 1978-1994 CPI data are quoted from Guo, 2007, p. 223. The 1995-2010 CPI data are from the website of Transparency International, 2013

Table 1 presents the ranking of the CPI score of China.² During 1978-1985, the CPI scores of

¹ The number of people here is calculated from the total number of people from 1998 till 2002, minus the number of people between 1998 and 2001.

² CPI is published by the Transparency International since 1995. And the CPI data of China before 1995 is given by TI periodically from 1980-1996. Specifically, 1980-1985 scored 5.13, 1988-1992 scored 4.73, and 1993-1996scored 2.43. The corruption index= 10-CPI.

China were between 5 and 6, showing China was a less clean country. However, the CPI scores went down since 1986 from 4.96 and reached a minimum value of 2.16 in 1995 with a ranking of 40 in 41 countries, presenting a rocketing trend of corruption in China. Subsequently, CPI increased year by year from 2.43 in 1996 to 3.5 in 1998, and during 1999-2010 the CPI scores were quite stable, with an average score of 3.4, showing the degree of corruption had somewhat decreased. However, China is still a country with serious corruption, ranking 78 in 178 countries in 2010.

The release of the CPI deepens the awareness of corruption in the society and provides the data base for the study of corruption, enabling crosscountry comparisons and annual comparisons of the extent of corruption. However, the CPI only measures the perception of corruption held by people, rather than being based on the objective data such as number of cases of corruption, effects of corruption and so on. Besides, as different people maintain different opinions, awareness and evaluations regarding corruption, and the subjective perception of corruption cannot equal to the corruption in reality. Because of the secretive nature of corruption, and coupled with the information asymmetry, it is impossible to find and punish all the corruption activities. So the data such as number of cases of corruption, the number of people involved in corruption cases etc. published by the government only reflect a small part of the real scale of corruption, constituting the "Corruption Black Number".

1.4. Income inequality

Gini coefficient is the most widely used indicator for measuring income inequality, while some researchers use the revenue gap between urban and rural populations to estimate the degree of income inequality (Lu, Chen, & Wan, 2005; Wei & Wu, 2001). The Chinese Residents Income Distribution Group sampling surveyed the households and estimated the Gini Coefficients of China were 0.382, 0.45 and 0.47 in 1998, 1995 and 2002 respectively. (Li, Sicular, & Gustavsson, 2008, p. 13) Different Gini coefficients estimated by different researchers (Hong, 2008; Wang, 2009) all show that the overall Gini coefficient of China is increasing, and the degree of income inequality is rising. 7





Li & Yue (2004) divide the overall personal income gap of China into three parts: inner-urban, inner-rural and urban-rural income gap, and find the contribution of urban-rural income gap to the total personal income gap had increased by 7 percent, rising from 36% in 1995 to 43% in 2002. World Bank (1997) points out that the urban-rural income gap can account for more than half of the total personal income gap of China in 1995, and the changes of urban-rural income gap can account for 75% of the changes of the total personal income gap.

Figure 4 shows the Gini coefficients of the national resident incomes. (Ravallion & Chen, 2007) If we do not adjust the cost of living between urban and rural areas, then the Gini coefficient was 0.31 at the beginning of reform and opening up in 1981, and 0.42 in 1993 which exceeded the international warning line of 0.4. Despite a slight reduction to 0.4 in 1996, the Gini coefficient gradually increased to 0.45 in 2001. However, if we adjust the cost of living between urban and rural areas, then the Gini coefficient was 0.28 and 0.39 in 1981 and 2001 respectively. Although the income gap had widened, yet it had not exceeded the international warning line.

The "Corruption Black Number" measures the ratio of public officials who are engaged or involved in corruption activities but not been investigated or punished. That is, the ratio of officials, who have already been corrupted but remain undetected due to various reason, or investigated but got away without punishment, amounts to the whole number of public officials. It is usually expressed as a percentage, which means how many proportions of the public officials are out of statistics. (Hu & Guo, 2002)



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Figure 5 The trend of the per capita income of urban and rural residents during 1978-2010.

Source: calculated from the China Statistical Yearbook Database, 2010

Since the reform and opening up, the incomes of Chinese urban and rural populations have enjoyed a significant improvement. The per capita disposable income of urban residents rose from 343.4 RMB yuan in 1978 to 19109.4 RMB yuan in 2010, an average annual growth of 13.38%. The per capita net income of rural residents rose from 133.6 RMB yuan in 1978 to 5919 RMB yuan in 2010, an average annual growth of 12.58%. During this period, the Chinese GDP shared an average annual growth rate of 15.82%. If we take the prices of 1978 as the comparable prices,⁴ we can calculate that the annual growth rate of the real per capita disposable income of urban residents is 7.6%, the annual growth rate of the real per capita net income of rural residents is 6.83%, and the annual growth rate of the GDP is 6.83%. That is, both at the current and comparable prices, the growth rate of the income of the urban residents is lower than the growth rate of the GDP, while the growth rate of the income of the rural residents is not only lower than that of the income of the urban residents, but also the growth rate of the GDP.

Although the per capita income of urban and rural residents has been greatly improved, yet it cannot be ignored that the per capita income gap between urban and rural residents is expanding. Figure 5 shows the trend of the per capita income of urban and rural populations as well as urbanrural income ratio during the period 1978-2008.

Figure 5 shows the per capita income ratio of urban residents to rural residents was 2.57 in 1978. As the reform and opening up of China first started from the Rural Household Contract Responsibility System, the income of rural residents enjoyed a significant improvement during 1979-1985. and the urban-rural income ratio decreased to 1.86 in 1985. However, after 1985, with the beginning and deepening of urban system reform, the income of urban residents increased rapidly, and the urban-rural income gap expanded again. The urban-rural income ratio increased to 2.86 in 1994. After the mid-1990s, due to the large-scale reform of the state owned enterprises, lots of urban residents were laid off, and the urban-rural income ratio decreased to 2.47 in 1997. Subsequently, the income gap between urban and rural areas further expanded. The urban-rural income ratio rose to 3.33 in 2009, and then went down slightly to 2.23 in 2010.



Figure 6 The urban-rural income ratio and the national Gini coefficients during 1978-2008.

Source: The national Gini coefficients are from Wang, 2009 and the urban-rural income ratios are calculated from the *China Statistical Yearbook* Database, 2010

Figure 6 shows the trend of urban-rural income ratio during 1978-2008. As it can be seen, changes of the national income gap are consistent with the changes of the urban-rural income ratio. Besides, we have calculated that the correlation coefficient between the national income gap and the urban-rural income gap during 1978-2008 is 0.967, showing a robust correlation with each other. Consequently, we can conclude the national income gap is determined by the urban-rural income gap to a great extent.

2. The effect of the power corruption on income inequality

Corruption leads to unequal opportunities, inhibits the economic growth rate, reduces social welfare spending, decreases the educational opportunities of the marginalised groups, increases poverty, and decreases the opportunities and potentials of the marginalised groups to earn income. Therefore, a

Here we use the GDP Deflator Index of 1978 to deflate GDP and the income of the urban and rural residents and then get the real GDP and the real income of the urban and rural residents.

considerable part of the income gap is caused and expanded by corruption. Besides, in the previous studies, most of the researchers ignored the impact of economic growth on income inequality, and some scholars believe that the pursuit of high efficiency of economic growth may widen the income gap. We can therefore use the following empirical model to analyze how corruption and economic growth affect income inequality in practice.

2.1. Model, variables and data description

To analyze how corruption and economic growth affect income inequality, we can establish the following model:

Inequality $_{t} = \beta_{0} + \beta_{1} Corruption_{t} + \beta_{2} GDPRate + \beta_{3} X_{t} + \varepsilon_{t}$

In the formula above, *t* is time, while *Inequality*, the explained variable, represents income inequality indicators; here we use Gini coefficient and the real urban-rural income ratio. *Corruption*, the main explanatory variable, represents corruption; here we use Corruption Perception Index. GDPRate is the real economic growth rate; X is a set of control variables, which we can use the indicators such as trade dependence (open), the ratio of government expenditure to GDP (govsize), and the degree of denationalization⁵ (reform) and so on. $\boldsymbol{\varepsilon}$ is the random error term. Table 2 shows the descriptive statistical results of the variables.

| Table 2 | The descriptive statistical results of the variables |
|---------|--|
|---------|--|

| Variable | Observation | Mean value | Std. deviation | Min. | Max. | Variable description |
|-------------------------|-------------|------------|-------------------|------|------|---|
| gini ⁶ | 31 | 0.37 | 0.07 | 0.24 | 0.46 | Gini coefficient |
| inequality | 33 | 2.62 | 0.48 | 1.82 | 3.33 | the urban-rural income ratio |
| corruption ⁷ | 33 | 5.99 | 1.07 | 4.22 | 7.84 | corruption=10-CPI |
| gdprate | 32 | 0.10 | 0.03 | 0.04 | 0.15 | real GDP growth rate |
| govsize | 33 | 0.19 | 0.05 | 0.11 | 0.32 | government size = total fiscal expenditure/ GDP |
| open | 33 | 0.34 | 0.16 | 0.10 | 0.65 | trade depend- ence=total imports and exports/ GDP |
| reform | 33 | 0.85 | 0.04 | 0.81 | 0.92 | the degree of denationalization |

The data used in the econometric analysis including GDP, population, number of workers in non-state-owned economy, total numbers of employees, total imports and exports, per capita disposable income of urban residents, per capita net income of rural households, financial expenditure budget and so on are all quoted from the China Statistical Yearbook of the relative years.

2.2. Empirical results and analysis

Table 3 shows the results of the empirical model. The results show that the estimates in the table, regardless of whether it is using the Gini coefficient or the urban-rural income ratio as the income inequality indicator, when we control the size of government, the openness and privatization indicators, the effect of corruption on income inequality at the 1% level is significantly positive. That is, corruption leads to increased levels of income inequality. Economic growth and income inequality stand in a significant negative correlation, which fully illustrated that with the development of economy, the improvement of income is conducive to shrinking the income gap.

In addition, we can find in the results that such indicators as *govsize*, *open* and *reform* show a positive correlation with income inequality, which means these factors expand the income gap to a certain extent.

Our empirical results show that the expansion of income inequality is not due to emphasizing the priority to efficiency; on the contrary, the rapid growth of economy has narrowed the income gap. As corruption leads to unequal opportunities and affects the social fairness and justice, corruption is an important reason that expands the income gap.

| Figure 3 | The empirical results of the effect of corruption |
|----------|---|
| | on income inequality |

| Explana. | Gini c | oefficient | as the | The real urban-rural income ratio as the explained variable | | | |
|------------|------------------------|------------------------|------------------------|---|------------------------|------------------------|--|
| tory | expl | ained vari | able | | | | |
| variable | (1) | (2) | (3) | (4) | (5) | (6) | |
| corruption | 0.092 (8.22) *** | 0.042 (3.74) *** | 0.039 (3.48) *** | 0.546 (10.24) *** | 0.337 (4.89) *** | 0.321 (4.38) *** | |
| gdprate | -0.305 | -0.413 | -0.314 | -1.379 | -1.926 | -1.629 | |
| | (1.43) | (2.89) | (2.11) | (1.18) | (2.01) | (1.55) | |
| govsize | 1.070 (4.39) *** | 0.460 (2.38) ** | 0.347 (1.77) * | 11.742 (10.32) *** | 9.325 (8.37) *** | 8.886 (6.94) *** | |
| open | | 0.252 (5.82) *** | 0.149 (2.08) ** | | 1.125 (3.90) *** | 0.847 (1.75) * | |
| reform | | | 0.443 | | | 1.244 | |
| | | | (1.75) * | | | (0.72) | |

We use the ratio of employee numbers in non-state-owned economy to the total numbers of employees to represent the degree of government expenditure.

The national Gini coefficients are from Wang, 2009.

Corruption index is quoted from Table 1 in this paper.

| std. deviation | -0.351 | -0.017 | -0.327 | -3.290 | -1.924 | -2.739 |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | (3.32) | (0.19) | (1.65) | (6.56) *** | (3.58) | (2.18) |
| observa- tions | 30 | 30 | 30 | 32 | 32 | 32 |
| R ² statistical ratio | 0.79 32.42 *** | 0.91 63.48 *** | 0.92 55.55 *** | 0.81 38.97 *** | 0.88 47.89 *** | 0.88 37.73 *** |

Note: ***, **, * represents the significance level of 1%, 5% and 10% respectively, and the numbers in parentheses are the absolute values of the t-statistics.

3. Conclusions and suggested policies

This article analyzed the wage level of the public officials, the situations and trends in the area of corruption and income inequality during 1978-2010, and then demonstrated the effect of corruption and economic growth on income inequality. The empirical results show that corruption significantly increases the level of income inequality, while economic growth is conducive to narrowing the income gap. We believe that when influential persons participate in the distribution of income or interfere with the market mechanism, monopolise certain resources, and use national policies for private interests, increasing their excess income to unreasonable levels, abusing their powers through rent-earning activities and corruption, and even distorting the principle of distribution according to the contribution made by factors of production, thus reducing the efficiency of resource allocation, these behaviour patterns tend to result in expansion of the income gap.

In view of the above, the government should focus on the equitable distribution of social wealth in the pursuit of efficiency, strengthen the democratic supervision of the executive power, intensify efforts to prevent and punish the power corruption, reduce the monopoly of the administrative powers of economic and social resources, inhibit the impact of administrative power on the market intervention, and gradually push forward the reform of political system. In the meantime, the government should continue to deepen the market-oriented reforms, accelerate economic development, and improve people's share of national income so as to narrow the income gap efficiently.

References

(2010). Retrieved November 15, 2013 from China Statistical Yearbooks Database:

http://tongji.cnki.net/overseas/brief/result.aspx

- (2013). Retrieved November 21, 2013 from Transparency International: http://www.transparency.org
- Blackburn, K., & Forgues-Puccio, G. F. (2007). Distribution and Development in a Model of Misgovernance. *European Economic Review*, 51 (6), 1534-1563.
- Chen, G., & Li, S. (2010). Corruption, income distribution and income inequality in China. *Economic Science*, 2.
- Chong, A., & Calderón, A. (2000). Institutional quality and income distribution. *Economic Development and Cultural Change*, 48 (4), 761-786.
- Dincer, O. C., & Gunalp, B. (2008). Corruption, Income Inequality, and Poverty in United States. Retrieved November 14, 2013 from EconStor: http://www.econstor.eu/bitstream/10419/53357/1/64270 4139.pdf
- Glaeser, E. L., & Saks, R. E. (2006). Corruption in America. Journal of Public Economics (90), 1053-1072.
- Guo, Y. (2007). Economic transition, institution and corruption. Beijing: Social Sciences Academic Press.
- Gupta, S. H., Davoodi, H., & Alonso-Terme, R. (2002). Does corruption affect income inequality and poverty? *Economics of Governance*, 3 (1), 23-45.
- Gymiah-Brempong, K., & Gymiah-Brempong, S. M. (2006). Corruption, growth and income distribution: are there regional differences? *Economics of Governance*, 7 (3), 245-269.
- Hong, X. (2008). A New Gini coefficient subgroup decomposition formula – on the decomposition of the urban and rural areas of the national Gini coefficient in China. *Economics (Quarterly)*, 8 (1), 307-342.
- Hu, A., & Guo, Y. (2002). Civil corruption costs income of economic analysis. *Economics and Social Systems*, 4.
- Li, H., Xu, L., & Zou, H. (2000). Corruption, income distribution, and growth. *Economics and Politics*, 12 (2), 155-182.
- Li, S., & Yue, X. (2004). A survey of urban-rural income gap in China. *Finance* .
- Li, S., Sicular, T., & Gustavsson, B. (2008). Income Distribution of Residents in China III. Beijing: Beijing Normal University Press.
- Lu, M., Chen, Z., & Wan, G. (2005). The mutual influences of the income inequality, investment, education and growth in China. *Economic Research*, 12.
- Mehrara, M., Firouzjaee, B. A., & Gholami, A. (2011). The corruption and income distribution in OPEC and OECD countries: a comparative study. *International Journal of Economics and Research*, 2 (6), 51-61.
- Ravallion, M., & Chen, S. (2007). China's (uneven) progress against poverty. *Journal of Development Economics*, 82 (1), 1-42.
- Tanzi, V. (1995). Government role and efficiency of policy instruments, IMF Working Paper 95/100. Washington: IMF.
- Ullah, M. A., & Ahmad, D. E. (2007). Corruption and income inequality: A panel data analysis. *Economia Global e Gestão*, 13, 53-74.
- Wang, S. (2009). The effect of income distribution gap on economic efficiency in China. In S. Liu, L. Zhang, & P. Zhang, *The Economic Growth and Cycle in China*. Beijing: China Economic Press.

Wang, Z., Zhang, K., & Meng, Y. (2009). Estimate of the Gini coefficient in China. *Economic Review*, 3.

Wei, S., & Yi, W. (2001). *Globalization and inequality:* evidence from within China. Retrieved November 14,

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World Bank. (1997). Sharing Rising Incomes – Disparities in China. Washington D.C.: World Bank.