Chinese Anti-Corruption Policy Choices in a Transitional Stage

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Abstract:
With rapid economic development, corruption has become more and more serious in China. This paper has set up an optimal utility model to analyze the factors leading to corruption in China. The model illustrates how higher salary, lower income from corruption, lower preparation costs, higher probability and degree of punishment can help to reduce corruption. Considering these findings, this paper provided some policy discussions in the end.

Keywords: Anti-corruption, Optimal-Utity Model; High salary; Education opportunities.

1. Introduction
Since adopting the Economic Reform and Open Market Policy in 1978, China has been in the process of profound transition from a traditional planned economic system to a free market economic system. The Chinese economy, standard of living, and national power have improved rapidly as a result. Meanwhile, corruption has become more severe and gained more attention in public discussion. President Xi’s recent anti-corruption campaign has exposed more cases of corrupt practices and court sentences. Recent data indicated that China had punished 300,000 officials in 2015 and Chinese courts heard approximately 45,000 corruption cases that involved roughly 63,000 persons in 2016, a 1/3 increase compared to 2015.1 At present, both the public and the ruling elite have realized that rampant corruption, if not handled forcefully, will endanger China’s economic transformation, social stability, and communist party governance.2

1.1 The Corruption Phenomenon
One of the most widely used definitions of corruption is “the use of public office for private gain” (Gray and Kaufmann, 1998). Another popular definition in the literature based on Klitgaard sum up corruption as (Klitgaard, 1988): Behavior which deviates from the formal duties of a public role because of private-regarding (personal, close family, private clique) pecuniary or status-gains; or violates rules against the exercise of certain types of private-regarding behavior (Ney, 1967).

According to these definitions, corruption includes the following factors:
(1) The agent of corruption usually is a public official.
(2) The motivation is for private gain or personal interest.
(3) The means of corruption always involves abusing or exerting informally the functionary power or the power of a different government office.

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2 Jiang Zemin, the former President of State and General Secretary of the Communist Party of China, is quoted as saying that the struggle against corruption in the party is ‘a matter of life and death of the party’.
(4) The result of corrupt behavior is that the public goods or the citizens’ rights are endangered.

The Corruption Perception Index, published annually by Transparency International, through the use of investigations and surveys, shows that China is one of the many countries where corruption is prevalent. In 2016, China scored 40 (on a scale from 0-100 where 0-9 is considered to be ‘very corrupt’ and 90-100 ‘very clean’) and shared 79th place with Belarus, Brazil, and India, directly behind Turkey. China was in 49th place as late as 2001, although the number of countries ranked was smaller then. According to reports of the Central Discipline Inspection Commission (CDIC), the Communist Party’s anti-corruption agency, and the Supreme People’s Procuratorate (SPP), both the number of corruption and bribery criminal cases and the number of public officials punished increased rapidly from 1980 to 2016. For example, from 1979 to 1982, the number of corruption cases was 98,225, 1983-87 was 155,000, 1988-92 was 214,318, and 1993-97 was 387,352. In 2002-03, the number was 225,618, more than the total for the four years of 1988-92. As recently as 2013-14, the number increased significantly to almost double the number in 2002-03.

The agents of corruption in China not only include public officials acting independently but also government branches, departments, and agencies (including state-owned enterprises). This paper only analyzes the former — public officials acting independently — as institutional corruption hinges on constitutional and social systems and needs a different and broader approach to address.4

1.2 Models
The research on China’s corruption typically employs the following theories and models. New institutional economists have applied a principal-agent model to examine the relationship between the institutions (principals) and the acting officials (agents). Officials become corrupt through the involvement of a client (see Klitgaard, 1988). If the system has a deficiency and the client has considerable discretionary power, then power-money transactions can easily happen.

The game-theory model focuses on sanctions and incentive mechanisms as well as the economic dependencies between social players in a corrupt transaction. If the optimal outcomes of social players lie on or beyond the corruption point in the current social institution arrangement, corruption is inevitable (see Dabla-Norris, 2000).

Another branch of models makes use of the theory of rent seeking. Rent is defined as additional benefits achieved from taking advantage of arrangements of institutions and distributions of powers. This approach examines the relationship between public officials and the rent seekers (bribers) where the rent seekers make every effort, including legal and illegal efforts, to influence public officials in order to achieve benefits (Krueger, 1974; Dabla-Norris, 2000; and Dabla-Norris and Wade, 2015).

The above models focus on the interaction process of different social players, which are paper as a partial-equilibrium analysis, instead of general equilibrium analysis. The purpose of the paper is to offer some practical policy suggestions under the current system arrangement.

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3 The comparison has limitations as the number of countries and methodology has changed over the years, although it gives a perspective on the deterioration.
4 As the paper treats the constitutional and social system as given, we tend to think this
intuitive and useful, but one shortcoming is that they simplify each social player’s decision process. This paper examines the factors that collectively affect the decision process of each player. In essence, it utilizes a cost-benefit framework, where the officials engage in corrupt practices if they perceive the net benefits of corruption to be greater than the net benefits of honesty. Through discussing factors that influence the corruption decision, it generates an optimal solution through comparing the maximized present value of utilities between corruption and integrity. We call this model the optimal-utility model.

2. Optimal-Utility Model
Corruption is a decision made by rational officials. Through comparing corruption benefits and costs, officials choose to whether or not to engage in corrupt practices. The keys are to investigate the factors that affect benefits and costs in China and then fit the factors into an appropriate utility functional form for solving the model. In order to facilitate the model design, we’ve assumed a representative official $i$. Let’s assume that $i$’s corruption benefit is $Y_i^{cpt}$. It consists of a person’s personal income or wage $Y_i^{cpt}$ and the income from their corrupt activities $Y_i^{cpt}$. Let’s further assume that the cost necessary to achieve their gains is $X_i^{cpt}$. It consists of the preparation cost $X_i^{cpt}$ and the punishment cost $X_i^{cpt}$. Generally speaking, $X_i^{cpt}$ is the personal investment in order to achieve their position (e.g., education). Since it is very selective to be a public official in China, the cost is very high. $X_i^{cpt}$ equals the disutility of being caught multiplied by the punishment probability: $V_{caught} \times P$. Note that $V_{caught}$ is not the direct disutility of being caught, instead, it is the expected present value of disutility of being caught, where “present” means at the time of making a corruption decision since what influences an official’s choices is his evaluation of costs, both actual costs and expected costs, at the time of decision.

Now let’s see the benefits and costs if $i$ keeps clean. $Y_i^{cln}$ denotes the benefits $i$ can get if he is clean, which can be broadly divided into two parts: $Y_i^{cln}$, the wage income and $Y_i^{cln}$, the social–psychological satisfaction. $Y_i^{cln}$ should be greater than $Y_i^{cpt}$ because officials who do not engage in corrupt practices generally are seen to put in more effort in their work and seek promotion, but we assume they are equal because the wage differentials between high-ranking officials and low-ranking officials in China is small. The non-corrupt officials are motivated to seek promotion not because of wages since wages are low in China, but because of social-psychological satisfaction $Y_i^{cln}$ that includes both the satisfaction of high social status and the satisfaction of gray income. Gray income is defined as the income, which lies between legal and illegal. $X_i^{cln}$ is the personal investment and so equals $X_i^{cln}$. $X_i^{cln}$ is the effort paid in office, which is not included in the corruption official’s cost. It can be broken up into the effort devoted to work and the effort devoted to flattering his/her superior. Those costs have been normalized to zero since they are more likely to pay less attention to their work and are less motivated to put in the effort to gain promotion. For simplicity, let us assume a linear utility function $U(Y, X) = Y - X$, so $U$ is a function about choice variables $Y$ and $X$. Next, we examine the decision problem of

\[\text{phenomena} \quad \text{– a person who works for private enterprises earns much more than the one who works for the government, but they may both prefer working for the government.}\]
the public official $i$ who can choose to either engage in corruption or not. Similar to the way we define $V_{\text{caught}}$ earlier, let $V_{\text{cpt}}$ and $V_{\text{cln}}$ denote the expected present value of utility in each of these two cases. In a steady state, $V_{\text{cpt}}$ and $V_{\text{cln}}$ must satisfy the following equations:

$$V_{\text{cpt}} = Y_{11}^{\text{cpt}} - X_{11}^{\text{cpt}} + (1 + r)^{-1}(PV_{\text{caught}} + (1 - P)V_{\text{cpt}})$$

$$= Y_{11}^{\text{cpt}} + Y_{12}^{\text{cpt}} - X_{11}^{\text{cpt}} - X_{12}^{\text{cpt}} + (1 + r)^{-1}(PV_{\text{caught}} + (1 - P)V_{\text{cpt}})$$

$$V_{\text{cln}} = Y_{11}^{\text{cln}} - X_{11}^{\text{cln}} + (1 + r)^{-1}V_{\text{cln}}$$

$$= Y_{11}^{\text{cln}} + Y_{12}^{\text{cln}} - X_{11}^{\text{cln}} - X_{12}^{\text{cln}} + (1 + r)^{-1}V_{\text{cln}}$$

(1)

where $r$ is the time discount rate, $Y_{11}^{\text{cpt}} = Y_{11}^{\text{cln}} = Y_{11}$ and $X_{11}^{\text{cpt}} = X_{11}^{\text{cln}} = X_{11}$ by assumption. $V_{\text{cpt}}$ and $V_{\text{cln}}$ enter into the right hand side of equations (1) and (2) because we assume that the official, once engaged in corrupt practices, will continue. Given equation (1) and (2), we can derive the situation at which no corruption will happen:

$$V_{\text{cpt}} \leq V_{\text{cln}}$$

(3)

A simple computation of equation (3) will give us the solution for $Y_{11}$:

$$Y_{11} \geq \frac{r}{p - 2r}Y_{11}^{\text{cpt}} + \frac{r}{p - 2r}X_{11}^{\text{cln}} + \frac{rP}{(p - 2r)(1 + r)}V_{\text{caught}} + X_{11} - \frac{P - r}{p - 2r}V_{\text{cln}}$$

(4)

where for $Y_{11}$ to be a meaningful solution, we require $P - 2r > 0$, that is we require the probability of detection and punishment to be great enough to make sure that the social institution won’t collapse.

From equation (4) we can see that if $Y_{11}$, the public official’s wage, is sufficiently high, no corruption will happen and how high this $Y_{11}$ needs to be depends on the right-hand variables. This paper’s policy devices are mainly generated from equation (4).

3. Policy Devices and Choices For Combating Corruption

From equation (4), we determine several ways to solve, or mitigate the corruption problem by analyzing the influential factors.

3.1 High Salary Policy

As mentioned above, if the wages are high enough, the possibility of corruption can be diminished. In China, is it feasible to achieve a high salary policy? If so, how to implement it? We know that many developed countries, such as America and Singapore are implementing a high salary policy and performing well, but unlike other nations, China has its own circumstances.

Since adopting the Economic Reform and Open Market Policy, China has achieved significant economic progress. In 1980, GDP was 4,517.8 billion RMB, in 1990 it skyrocketed to 18,547.9 billion RMB, in 1999 it increased to 79,522.8 billion RMB (Chinese statistical annuals, 1999) and in 2014, it surpassed Japan becoming the second largest economy in the world. Accordingly, government revenues increased as well. This indicates that China has the financial foundations necessary to make a high salary policy feasible. On the other hand, at least two factors restrict the implementation of a high salary policy in China. The number of public officials and the number of the Communist Party departments and other institutions are significant and growing. The number of civil servants has increased from 6.597 million in 2008, to 7.089 million in 2012, having increased by nearly 500,000 in the four years. According to the 2015 Statistics Bulletins on the Development of Human Resources and Social Security, at the

\[ http://cpc.people.com.cn/n/2013/0701/c64387-22036669.html. \]
end of 2015, China’s government employees has reached to 7.16 million.7

Furthermore, these numbers do not include those working for State-owned enterprises, which often come with semi-public official identities, and do not include temporary and informally hired workers. It is unreasonable to have an increase in the number of public officials alongside a decrease in government functions during the period of China changing from a planned economy to a market economy. China has implemented at least six government institutional reforms in order to streamline administration structure, stimulate market vitality and enhance administrative efficiency. With the downsizing of government branches, the ratio of public officials to the mass is unexpectedly higher – 1:600 at the beginning of the market liberalization to 1:34 at the end of the 1990s (Chinese Statistical Annuals, 1999). This means that even a small increase in individual wages needs very large financial outlays.

Another restriction is income distribution. In any modern society, unfair distribution of income may induce social turbulence. This problem stands out in China. The priority of increasing income should be given to 80 million unemployed workers who have lived on a meager social welfare income and around 0.8 billion peasants whose average incomes are below the international poverty line.

Given all these factors, even though the financial situation in China has improved, a direct universal increase in wages is hardly feasible currently. However, this does not mean we should give up a high wage policy. In fact, the Chinese government is attempting to identify possible strategies to achieve a high wage policy.

One such strategy is to reduce the number of civil servants. Given the same amount of money, a smaller workforce means higher individual salaries. The way to achieve this reduction is through simplifying the administrative structure, which China is experiencing. However, up to now, the effect has not been sufficient. In our opinion, in order to reduce the number of public officials, the key is to reduce government power. One of the main reasons why China ends up with such an excess of civil servants is that government still administers society as well as the market, even though China has transformed from a planned market economy. So “Small government, big market” is the direction.

The other way is establishing a “clean accumulation fund,”8 which increases public officials’ expected income. We can follow Singapore’s model where a clean accumulation fund includes personal fund contributions up to 18% and government institutions contribution up to 82%. If a public official maintains a spotless record during his entire career, after retirement, he could get the fund back. The advantage of establishing this fund is that we need not pay large salaries to public officials now, and thus relax the financial outlay pressure.

We must recognize that society is a complicated system. Although improving wages could decrease corruption, but determining the wage level necessary to stop corruption depends on all the factors on the right-hand side of equation (4).

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7 Statistic is available at http://news.xinhuanet.com/local/2016-06/21/c_129077723.htm

8 At the end of his career, a public official may get more money, contributed by the government, if he does not choose to become corrupt.
3.2 Reduce administrative power and establish an “open government affairs” policy

As shown in equation (4), the required “no-corruption wage threshold” depends on the corruption income $Y_{l2}^{cpt}$, so a relatively lower $Y_{l2}^{cpt}$ can reduce the incidents of corruption, given a certain wage level and certain other factors. Can we reduce the financial incentive of corruption in China?

(1) Reduce administrative functions
This policy is related to the “small government; big market” statement made earlier. According to rent seeking theory, complicated approval procedures and extensive discretionary power are two of the institutional origins of corruption. There are two ways to reduce these: first, the government should circumvent those areas regulated by the market itself radically eliminating the chance of rent seeking. Second, the powers that must be the responsibility of the government should be standardized. Since the October 2001 Administrative Examination and Approval Reform, which standardizes the administrative approval action and proceedings, has been enforced throughout the country. Now, more than sixty-five departments of the State Council have reduced their own examination and approval power. As another example, in Guang Zhou, the examination and approval agencies were reduced from 719 to 146 (Southern Daily, 2010) and accordingly, the number of corruption cases involving the abuse of examination and approval power were reduced. It has been proved that this reform is effective and should be implemented more widely.

(2) Open government affairs

Since the 1980s, China has carried out open government affairs experiments in some cities of South China. The results of these experiments illustrate that this is an effective anti-corruption action. For example, in the Department of Industry and Commerce and the Department of Taxation, the number of incidents of corruption decreased significantly after adopting a “Business Hall” transparent approach, where all taxes and fees are accepted and returned, with transparency. At present, the task we are facing is how to extend these reforms to more areas and more departments, especially to those “soft-power” departments, 9 where the government affairs are hard to quantify and supervise.

3.3 Increase promotion opportunities of clean officials
Looking again at the model, we assume that $X_{l2}^{cln}$ is the cost to non-corrupt officials paid while working in the government, including the effort devoted to work itself in achieving promotion and the effort of flattering toward promotion. Efforts devoted to work are positive, so we seek ways to increase opportunities for promotion through hard work. The following measures should be taken:

(1) Reducing the number of officials. This seems obvious since the smaller the number of officials, the more opportunities for each one.

(2) Introducing an open position competition mechanism. Now the situation is, once a person is in a position, there is minimal chance that he/she would either lose the position or be demoted, and the incentive for hard work is low and flattering is high. After introducing an open position competitive mechanism, everybody can be promoted as well as demoted, so the

9 “Soft-power” departments, relative to “hard-power” departments (such as the Department of Taxation), indicate those departments where their functions are hard to quantify and thus difficult to supervise.
incentive of hard work would be higher and flattering would be lower due to the openness.

(3) During the process of promotion, the public should be allowed to participate and speak their opinions. Good democratic practices, such as public recommendations and public opinion poll, should be adopted to ensure that non-corrupt officials can be promoted in a fair way.

3.4 Increase education opportunities to reduce preparation costs
Another influential factor is \( X_{i1} \), the preparation costs. The higher \( X_{i1} \) is, the higher we need to pay public officials to keep them from engaging in corruption practices. This is consistent with the concept that high investment must produce high returns. In China, only the top students can be enrolled in universities, which mean that they have to study very hard, both physically and psychologically. After graduating from university, they suffer fierce competition in order to get government jobs and become public officials. Generally speaking, the preparation cost is so high that the psychological disequilibrium after working frequently leads public officials to engage in corrupt practices. So, increasing the opportunity of receiving a higher education in China by advocating the establishment of private universities and by cooperating with foreign universities should serve as one possible deterrent to corruption.

3.5 Improve punishment probabilities and increase punishment levels
Suppose other factors remain constant, while there are more severe punishment levels and a greater likelihood of being caught, wouldn’t this result in a lower rate of corruption? Becker’s economic model of crime\(^{11}\) indicates that the size of the penalty, after discounting for the probability of escaping detection, is related to the amount of the bribe (see Rose-Ackerman, 1998 and Polinsky and Shavell, 2001).

(1) Improve punishment probabilities
A Corruption Black Number (CBN) is commonly used to measure the proportion of undetected corrupt officials in the total number of estimated corrupt officials. It has been estimated that the CBN of China is around 80%, that is, only one out of five corrupt officials has been punished (Hu Angang 2001). It is no wonder that civil servants or public officials, especially those who will soon retire, become involved in corrupt activities.\(^{12}\) Thus we can see how urgent it is to improve the punishment probabilities in China, but how can that be achieved? First, an independent branch directed by the People’s Congress should be established to address this issue. The Central Discipline Committee, in fact, is the department that investigates, exposes and punishes corrupt officials. However, it is an internal branch of the Communist Party, and so supervision of the Central Discipline Committee is not effective under some circumstances. Second, we should ensure that personnel and funding are enough to meet the needs of the anti-corruption branch.

(2) Increase punishment levels
Punishment must be strict enough to have a deterrent effect. In the modified Criminal

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\(^{10}\) We have already analyzed why people in China prefer working for government. See section 2.

\(^{11}\) The model required that the cost to the offender arising from conviction, when discounted by the probability of apprehension, must exceed the utility derived from the criminal act.

\(^{12}\) China has the so-called 58-59 phenomena and 64 phenomena. This is because average public officials retire at the age of 60 years old and high officials retire at the age of 65 years old. Many officials become corrupt before they retire in China.
Law, a provision has been added stating that corrupt officials could be sentenced to death if the corruption income was large enough. But in some cases, even death cannot keep officials from becoming corrupt since their motivation is to collect money for their family, especially their children. Besides legal and administrative punishment, economic punishment can also provide an effective way deterrent to corruption. Thus, how to set up a system to prevent corruption income from being dissipated and transferred to other countries is an important task.

3.6 Quantifying psychological satisfaction

Equation (4) indicates that the higher the psychological satisfaction $Y_{i2}^{cln}$ is, the lower the probability of corruption, given that everything else is equal. But we should not attempt to control corruption through improving official psychological satisfaction, since in China officials’ social status and gray income levels are already unreasonably high. As analyzed in Section 2, some people in China would rather give up working for high salary industries in order to achieve public officials’ high social status, which are accompanied by high gray incomes, including low-rent housing, free car use and other fringe benefits. Actually, gray incomes are not legal incomes; we should not achieve democratic ends at the expense of using undemocratic ways.

The way to achieve low corruption by adjusting $Y_{i2}^{cln}$ should go through “quantifying psychology satisfaction”, which means we should transform officials’ high social status incomes and gray incomes into wages through quantifying those incomes and keeping them from officials, but paying them in the form of wages. This seems like a placebo effect since somebody will argue that the increase of $Y_{i1}$ equals the decrease of $Y_{i2}^{cln}$, and so there would be no actual effect on officials’ choices but this is, not true. The point here is that gray income usually comes with unfair distribution and a waste of money.

Recently China has put up a reform on telephone and cell phone use by public officials. Before reform, the government paid for officials’ telephone and cell phone fees, regardless of whether the usage is for personal or business purposes. After the reform, the government gave a certain amount of allowances to officials according to their administrative levels and working demands. The survey results illustrate that officials are more satisfied than before and the government is saving a large amount of money. Now a similar reform is being implemented on car usage. Given those facts, it is strongly suggested that further development and expansion of the “quantifying psychological satisfaction” policy begin.

4. Conclusions

This paper analyzed Chinese public officials’ corruption using an optimal utility model. The model indicates that officials’ salary, income from corruption, psychological satisfaction, preparation cost, the probability and degree of punishment can influence corruption. We suggest, specifically, that raising civil servants’ salaries, increasing promotion opportunities of non-corrupt officials, increasing education opportunities, reducing administrative power and establishing an “open government affairs” policy, increasing punishment probabilities and levels, while enhancing civil servants’ psychological satisfaction could be possible strategies to combat corruption.

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