Study on Unlawful Dismissal Compensation Based on a Cooperative Game Model

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Abstract
In China, collective disputes on unlawful dismissal compensation resulted from lock-out or workplace relocation are increasing. However a reasonable compensatory standard doesn’t take shape because regulations in Labor Contract Law of PRC don’t reflect the formation mechanism of compensation accurately. The paper try to make a case study based on a cooperative game model, and draw the conclusion that it is risk preference of bargaining parities impacts the compensatory amount.

Key words: Unlawful dismissal compensation; Cooperative game; Risk preference

1. SYSTEM FOR UNLAWFUL DISMISSAL COMPENSATION
Referring to the regulations in Convention Concerning Termination of Employment at the Initiative of the Employer (C158) that employment of workers should not been terminated unless there are some so-called fair reasons, such as person-related reasons, conduct-related reasons or operational reasons, those of dismissals lack of above-mentioned fair reasons (a social appraisal standard with morality implication) or incompatible with legal procedure are regarded as unlawful dismissals.

The core of regulation of unlawful dismissal is to prevent employers from abusing dismissal right so as to maintain workers’ job stability expectancy (employment security) on condition that the latter comply with employment contracts and fulfill their obligations. Hence, the inherent principle when we try to remedy unlawful dismissal is to compensate for those no enjoyed rights and interests in employment contract due to wrongful dismissal. Generally, there are three measures to remedy unlawful dismissal, that is, reinstatement1, re-engagement2 and financial compensation respectively. From the international perspectives, paying financial compensation is the mainstream remedy methods nowadays.

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Commonly, the following factors should be considered to determine employer’ financial compensation responsibility, such as, the residual working ages included in workers’ existing employment contracts; workers’ wage and benefit income; employers’ or

1 Reinstatement means that employer resumes original work of workers unlawful dismissed.
2 Re-engagement means that employer gives workers unlawful dismissed other similar work.
workers’ faults and severity of the faults (ex. dismissal because of employment discrimination, retaliatory dismissal resulted from workers’ participating in trade union or workers’ reporting employers’ illegal behavior); probability and costs of finding a similar work and etc. In these factors, some of them may leave employers undertaking extra responsibility (for example, employer made serious mistakes); some of them may relieve employers compensatory liability contrarily (for example, worker make faults); and others such as costs of seeking another work maybe difficult to be measured. So it is not easy to figure out compensatory amount in practice owing to complexity of these factors.

Since various comprehension, there are obvious differences among national regulations on unlawful dismissal compensation. Except Germany, other nations listed in Table 1, such as America, England, France, Japan and China, regulates in its law that employers should compensate the relevant workers for unfulfilled wage payment obligation, when they dismiss their workers wrongfully. Of which, the compensatory amount is equal to loss of wage from the contractual termination date to the contractual expiring date in USA and Japan; judges in UK have discretion to determine compensatory amount, with a ceiling line similar with France, considering above-mentioned factors comprehensively; the compensation for unlawful dismissal in China is not paid for unfulfilled employment contract but is bound to severance pay related with fulfilled contractual ages and without ceiling line. After comparison, it is easy to know that the unlawful dismissal compensation arrangement in China is irreconcilable with legal principle because of ignoring that payment of compensation should only be aimed at making up for unfulfilled obligation of wage payment prescribed in employment contract early terminated; compensation standard is relatively rigid and much higher than the one of many developed countries, which imposing more several sanctions on employer unfairly.

### Table 1
Comparison of I. Dismissal Compensation Regulations

<table>
<thead>
<tr>
<th>Nation</th>
<th>Compensation standard of unlawful dismissal</th>
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<tbody>
<tr>
<td>USA</td>
<td>1. The court commonly decides defendant compensate plaintiff loss of wage from the contractual termination date to the expiring date if employer conclude a non fixed term labor contract with certain a worker and discharge him before the expiring date.</td>
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<td>2. The court commonly decides the compensatory amount after considering several factors generally, such as income expected to be obtained not given termination of employment contract, the residual service age of worker and etc. if employer conclude a non fixed term employment contract with certain a worker.</td>
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<tr>
<td>UK</td>
<td>1. Basic Award is determined according to worker’s years of age and his/her working age. A worker under the age of 22 years old may obtain half of weekly wage for each full year worked; in 20 years age, one of 22 to 40 years of age, one weekly wage; over 41 years of age, one and a half of weekly wage. Calculation of amount of Basic Award should not exceed statutory maximum wages and 20 years of service ages. Meanwhile, court may decide to decrease the amount of Basic Award after considering some elements such as worker’s action (ex. whether the action of workers resulted in discharge or not?), worker’s refusal of re-employment unreasonably, other severance pay or other income obtained by worker and etc.</td>
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<td>2. Compensatory Award is determined by judge after considering many factors, such as immediate loss, expected loss, extra benefit loss, costs of hunting new job, pension loss, working protect loss of the dismissed and the firing method of employer. The Compensatory Award is no higher than the ceiling line as regulated.</td>
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<td>3. Additional Award will be paid as judge’s request if employer refuse reinstatement or re-conclusion of employment contract, expels workers with discrimination or some other causes prohibited by law. The amount of compensation should be 26 to 52 weeks of wages, 104 weeks of wages or even 156 weeks of wages relying on different reasons.</td>
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<td>Germany</td>
<td>Worker will be paid Severance Pay based on the number of years worked with the Employer at the rate of half of monthly wage for each full year worked; the maximum Severance Pay is no more than 12 months of wage as stipulated.</td>
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<td>France</td>
<td>Compensatory amount is equal to 6 months of wage in general.</td>
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<tr>
<td>Japan</td>
<td>Employer ought to re-employing the dismissed beside undertaking compensation responsibility. The compensatory amount is equal to deserved wage amount during the course of dismissal.</td>
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<tr>
<td>China</td>
<td>1. A Employee shall be paid Severance Pay based on the number of years worked with the employer at the rate of one month’s wage for each full year worked. Any period of not less than six months but less than one year shall be counted as one year. The Severance Pay payable to a Employee for any period of less than six months shall be one-half of his monthly wages. If the monthly wage of a Employee is greater than three times the average monthly wage of employees in the Employer’s area as published by the People’s Government at the level of municipality directly under the central government or municipality divided into districts of the area (where the Employer is located, the rate for the Severance Pay paid to him shall be three times the average monthly wage of employees and shall be for not more than 12 years of work (the term “monthly wage” means the employee’s average monthly wage for the 12 months prior to the termination or ending of his employment contract).</td>
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<tr>
<td></td>
<td>2. If an Employer terminates or ends an employment contract in violation of this Law, it shall pay damages to the Employee at twice the rate of the Severance Pay.</td>
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</table>

2. **A CASE OF UNLAWFUL DISMISSAL COMPENSATION IN CHINA**

Regulations on compensation of unlawful dismissal in Chinese law is too simple and severe to imply many unreasonable provisions in it. Just look at compensatory standard, the compensation level even exceed the level of many developed countries, that is proved to be out of practice.

In reality, there is almost no such case that employer pay for unlawful dismissal at twice the rate of Severance Pay. On the contrary, the traditional way to pay the wrongful dismissal compensation is at the amount of $x \cdot n$ ($x$ is a real number greater than or equal to zero, and is
valued commonly as 1 or 2; m is some amount related with weekly or monthly wage of a worker). Obviously, the more x is valued, the higher m is, the larger quantity of workers is, then, the more compensation will be.

In the case of dismissal of dispatching workers by Nokia (Suzhou), the median monthly wages of involved 100 workers is RMB 2,882.00; the median working ages of these workers is about 3 years. If employer paid in three different patterns listed in Table 2, the total amount of compensation of 100 workers would be RMB 1,729,200.00, RMB 2,882,000.00 and RMB 576,400.00 respectively, which indicate a huge gap. So in this case, both of bargaining agents representing employers and workers respectively didn’t offer and counter-offer at twice of Severance Pay as regulated in Labor Contract Law, (the reason for this is because a experienced workers’ bargaining agent know clearly it is almost impossible to reach a conclusion if bidding at twice the rate in reality). Consequently, workers’ agent made his bid rationally inside a strategy space of $[(N+1)\ m^*\ (N+2)\ m^*] \ (N=1, \ldots , n, n$ is natural number, N is valued 1 on condition that workers serve for each full year; $m^*$ is “monthly wage” means the worker’s average monthly wage for the 12 months prior to the termination or ending of his employment contract), that is [288,200.00,576,400.00]. The ultimate solution accepted by both parties is slightly higher than 288,200.00 even if workers imposed collective action during bargaining.

### Table 2
Comparison of Compensation in Three Different Bidding Pattern

<table>
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<tr>
<th>Compensation bidding pattern</th>
<th>Compensatory amount (yuan)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twice of severance pay</td>
<td>1,729,200.00</td>
</tr>
<tr>
<td>$(N+1)\ m^*$</td>
<td>288,200.00</td>
</tr>
<tr>
<td>$(N+2)\ m^*$</td>
<td>576,400.00</td>
</tr>
</tbody>
</table>

It is a typical case among collective disputes for unlawful dismissal caused by lock-out or factory relocation. There are two traits. Firstly, the psychological bargaining strategy space and actual one are both deviated from the statutory compensation. Secondly, reached consensus is always tending to $(N+1)\ m^*$ if there is no 30 days of dismissal forenotice. Apparently, the statutory compensatory amount, say twice the rate of Severance Pay, is too high to lose its instructive. The underlying causes of this situation lie in distorted reflection of compensatory formation mechanism in Labor Contract Law of PRC, which could not form an appropriate compensation standard that should not only reflects production efficiency and social justices but also could be accepted by employers and workers (Brams & Taylor, 2013).

3. **Analysis on Unlawful Dismissal Compensation Based on a Cooperative Game Model**

Hereinafter a cooperative game model will be used to simulate the process of unlawful dismissal compensatory game. Under this model, there is a binding agreement between employers and workers, that is, the compensatory amount should not exceed $\omega(\omega = \sum_{k=1}^{n} m_k$, $m_k$ is a worker’s average monthly wage of the previous 12 months before he/she was wrongfully dismissed in advance; $k=1, \ldots , n, n$ is natural number; $x$ is a empirical constant); then there is a feasible alternatives, “$S^*$”, of both parties, in which a optimal partition point representing Pareto efficiency is contained. $S^* = \{(s_1, s_2) \mid 0 \leq s_1 \leq \omega, s_1 + s_2 \leq \omega\}$ ($i=1,2$) ($s_1$ is employer’s gain from bargaining; $s_2$ is worker's gain from bargaining). On the other side of coin, there is also a utility alternatives, “$u$”, containing a optimal partition point representing equity criterion, $u^* = (u_1, u_2)$ ($u_1$ is the expected utility of the two sides; $u_i$ is employer's utility; $u_i$ is workers'utility). Suppose the bargaining breakdown point of both parties is $d=(d_1, d_2) = (0,0)$. Because employer always appears risk neutral, then let

$$u_1 = u_1(s_1) = s_1;$$

workers generally appear risk aversion, we use a power function to express their utility nature, let

$$u_2 = u_2(s_2) = s_2^b,$$

($b$ is risk preference coefficient, $b < 1$).

To work out the optimal solution of unlawful dismissal compensatory amount, we have to solve a problem of nonlinear optimization:

$$\max u_1 u_2$$

s.t. $s_1 + s_2 = \omega$.

From above assumption, we have

$$s_1 = u_1, \ s_2 = u_2^b;$$

then the problem of nonlinear optimization is transformed to:

$$\max u_1 u_2$$

s.t. $u_1 + u_2^b = \omega$.

It can be known from the constrain condition, that $u_i = (\omega - u_i)^b$. Then get a first order derivative,

$$\omega - U_1^b - U_1^b(\omega - U_1)^b-1 = 0,$$

$$U_1^* = \frac{1}{1 + b} \omega = S_1^*,$$

$$U_2^* = \left(\frac{b}{1 + b}\right)^b, \ s_2^* = \frac{b}{1 + b} \omega.$$  

We can see that it is $b$ and $\omega$ jointly influence the optimal partition relation. If $\omega$ is known, the smaller $b$ is, which means side of workers is more serious risk aversion, the smaller the utility he gets. Specifically speaking, when workers appear extreme risk aversion, that is $b \to 0$, than under above cooperative game model, the way to divide...
the $\omega$ would be $(\omega, 0)$, which means workers could obtain very small share from $\omega$ and even share nothing if they choose a bargaining strategy with very small expected bargaining breakdown risk and without higher expected revenue. When workers' risk preference tend to be risk neutral, that is $b \to 1$, the compensation would be $(\frac{\omega}{2}, \frac{\omega}{2})$, which means workers could share half of $\omega$ if they choose a bargaining strategy with very higher expected bargaining breakdown risk and higher expected revenue.

In the case of Nokia (Suzhou), workers’ agent firstly bid at $(N+2)m^*$ and chose a strategy with higher bargaining breakdown risk due to strike. At last, $(N+1)m^*$ was agreed with additional shopping card of 100 yuan for every worker. This settlement is confirmed with the prediction of model.

CONCLUSION

The unlawful dismissal compensation is actually determined on a cooperative game mechanism within an estimated interval. The amount of compensation is prominently impacted by risk preference of bargaining parties. The more risk averse workers are, the smaller the compensatory amount is; contrarily, the higher. In addition, employers are always get a higher proportion of share from $\omega$ because of their higher risk preference, which makes amount of workers’ compensation tend to the lower limit of estimated interval. Therefore, we can draw a further conclusion that it is against the basic formation principle of unlawful dismissal compensation to pay for wrongful discharge at twice the rate of Severance Pay; statutory compensation standard could not be proved to be reasonable through theoretical simulation. Consequently it is necessary to revise regulations on unlawful dismissal compensation.

REFERENCES

