

# Dealing with Different Types of Chinese “Nail Households”: How Housing Demolition-Induced Disputes Were Settled in Urban China

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*Extensive construction works that have been operating in every corner of China’s urban areas lead to substantial issues. The disputes induced by housing demolition are increasing dramatically in urban China and significantly threaten stability of Chinese society. This drives the need to better resolve these disputes, so as to reduce its severe impacts to the country in the future. Different from previous researches on housing demolition-induced disputes in urban China, this paper seeks to understand the forces that compel certain types of resolution of housing demolition-induced disputes in a project based case study in Dalian. The paper has identified four different demolition-induced disputes with different features. By comparing and analysing these resolutions, this paper offers some important implications for resolution of housing demolition-induced disputes in urban China.*

*Keywords: urban demolition; disputes; stakeholders; bargaining powers; resolutions*

The economic reform and the policy of opening up begun in 1978 has transformed Chinese economic institutions from a centrally planned economy to a market economy that is increasingly influenced by neoliberal forces (Breslin, 2004; Liew, 2005). The process of decentralization, and the subsequent administrative and economic power devolved to local governments, has in part driven the rapid growth of cities (He and Wu, 2009) through “growth machine” forces (Molotch, 1976; Zhang and Fang, 2004). China’s local governments have substantial incentive to promote Greenfield developments as well as urban renewal, as often large proportions of local government budgets are generated directly, or most often indirectly, via property development (Wu, 2012; He and Wu, 2005).

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Growth machines necessarily exclude some populations from the prosperity generated by them. Accompanying rapid urban development is a large incidence of resettlement of local residents from their previous residence to newly planned space (Wu, 2004). Concomitantly, disputes over urban housing demolition are escalating in both quantity and degree of seriousness between local government and the public (Weinstein and Ren, 2009), and have become the most prominent issue threatening the social stability of the country (He and Wu, 2009).

Resolving these disputes is of serious concern to both the government and urban residents, and better understanding of the mechanism of resolution could improve the outcomes for all. This paper explores the processes by which resettlement disputes are resolved. Through the lens of a case study of urban housing demolition project in Dalian, and centering on four disputes in the project and analysis of their resolutions, we draw on insight for resolution of housing demolition-induced disputes in China.

We use Game Theory to understand the forces that compel certain types of resolution of these housing demolition-induced disputes in Dalian case study. Games in Game Theory are structured representations of competition and cooperation between actors (Barough et al., 2012). Games allow for analysts to classify the outcomes of an interaction among actors – a game – in order to study the frequency and distribution of those outcomes. Outcomes of a game are determined by strategic actions and bargaining powers applied by players as well as strategic interactions between players (Madani, 2010). As we describe below, in this study, we use a particular game, the Chicken Game, to structure our analysis of actors and outcomes in housing resettlement dispute resolutions.

## **GAME THEORY APPLIED TO DISPUTE RESOLUTION**

Significant attention has been directed in the literature to demolition disputes in China, as analysts examine the drawbacks and disadvantages of current housing demolition policy, institutions and legislation, which are considered to be an underlying cause of housing demolition disputes (An-ling, 2004; Jing, 2010; Xiao-bing and Zheng, 2010). These studies often conclude with a number of suggestions to improve the legislation, policy and institution; for instance, proposing to increase public participation in the demolition process, to raise transparency in compensation and relocation standards, and to strengthen the legal protection of rights and interests of residents involved (Tang, Wong et al., 2008). Some studies focus on the importance of stakeholders in causing the disputes (Wu, 2012; Min, 2009).

There are several notable problems with the current state of the literature on resettlement disputes in China. First, only a few studies are based on real cases, rather than hypothetical situations, e.g., (Tang et al., 2008; Wu, 2012; Liu and Zhou, 2006). Second, the existing research generally does not classify different types of

disputes, nor does it attempt to understand the different ways that different stakeholders engage in the dispute process. That is, most studies lack comparison of bargaining methods, strategic actions and behavior of stakeholders involved in these disputes.

One particular set of stakeholders in resettlement disputes in China is *dingzihu*. Translated as “nail household”, *dingzihu* is a Chinese phrase describing those residents with strong resistances to housing demolition, who often refuse to resettle, or at least resist resettlement longer than their neighbors (Weinstein and Ren, 2009). Given the increasing prevalence of disputes involving *dingzihu* (Weinstein and Ren, 2009), we speculate that the dearth of literature is the result of difficulty in conducting research and obtaining honest accounts in China of how settlement of housing demolition-induced disputes came to be resolved between local officials, resettled residents and other involved stakeholders. Stakeholders are generally unprepared and unwilling to be interviewed.

Another notable and under-developed problem of the literatures in the research on resettlement disputes, are studies applying Game Theory to understanding *dingzihu* in China. Our study attempts to remedy these issues in the literature by using an actual case study to classify the behaviors of different types of *dingzihu* in dispute situations. Our work goes beyond the hypothetical, examining a case of an actual resettlement dispute using Game Theory.

In social conflicts, Game Theory assumes that decisions and actions made by individual players are oriented to strategic decisions, undertaken to achieve their own aims. Game Theory is useful in analysing social conflicts because it establishes a framework to understand bargaining powers, strategic actions and decisions and behaviors of individual players involved in a conflict (Barough et al., 2012), and how these would subsequently influence others and the final outcomes of the conflict (Madani, 2010). In the case of resettlement disputes, Game Theory provides us with a way to structure our thinking about the winners and losers in the conflicts. Understanding the outcomes in this way gives us insight into power distribution among actors in conflicts and ways that actors use that power to optimize their own outcomes in the dispute. If the purpose of policy is to bring about fair and just systems of resettlement and dispute resolution, this distribution of outcomes and power is of great public interest.

Many studies integrated game theory with conflict resolution across a wide range of perspectives (Barough et al., 2012; Madani, 2010; Bornstein and Gilula, 2003). For example Madani in 2010 linked Game Theory with conflicts caused in water resource management, and analysed resolutions of these conflicts through a number of non-cooperative games, such as Prisoner’s Dilemma Game and Chicken Game (Madani, 2010). Application of Game Theory to examine demolition-induced disputes has been uncommon in China, but a few studies exist (Hui and Bao, 2013; Chen and Tian, 2011). Hui and Bao (2013), for instance, apply Game Theory to

manage conflict resulting from land acquisition, by examining incentives and interactions between local governments and farmers.

As far as the authors are aware, there is currently no research that uses Game Theory to examine demolishing disputes and their effects on different types of Chinese *dingzihu*. The principal contribution of this paper is in extending the research into this realm, examining the strategic actions and bargaining powers applied by various *dingzihu*, explaining the process through which stakeholders fought for their rights and interests, and identifying the mechanisms of dispute resolution. As we describe below, another major contribution is that we were able to obtain the cooperation of *dingzihu* and stakeholders in local government.

## CASE STUDY AND RESEARCH METHODOLOGIES

We site our research at a housing demolition located in Ganjingzi District (GD) in the west and northwest of the city of Dalian in northeast China. It was a project of old city reconstruction, situated in the north of the district, planned in 2008 to increase urban regions of GD and construct growth areas of Greater Dalian.

We organized five semi-structured interviews in December 2013 with Mr. L, an officer from GD Authority. Mr. L directly participated in many of the aspects of the demolition process, such as final negotiations with displaced residents. Given this, he is in a position to offer a knowledgeable perspective that spans both the temporal scope of the project and the range of project activities. Through these interviews, we gained basic information about the project, including disputes induced during demolition. We then identified these disputes, and selected four different types of disputes to study based on characteristics of the nail households and final settlement strategies and outcomes. There were many households, and we chose these four as typical cases from four general classes of households and backgrounds including marginalized people in the city, Gangster, and factory property owned by private business and State-Owned Enterprise (SOE) respectively. These categories are the result of distilling interview data from local households and local officials down to an archetype.

Two unstructured interviews with resettled local residents, Mr. and Mrs. Z, and a staff from the SOE in January 2014, and second round of two semi-structured interviews in February 2014 with Mr. L and Mr. and Mrs. Z were held subsequently. The purpose of these interviews was to gain more detail on the four selected disputes. Discourse analysis was then applied to analyse data collected during the interviews.

We use the Chicken Game to analyse and discuss the behavior of stakeholders involved in the housing demolition-induced disputes and the process whereby stakeholders fight for their interest through taking different strategic actions and exercising bargaining powers. To understand this game, imagine that there are two drivers each driving a car towards each other from opposite directions. If neither drivers

yields, they will collide and both die; if one driver yields, the other driver wins the game and the driver who yielded is said to be the chicken. The best outcome for this game is that both of drivers yield to achieve a win-win situation (Barough, Shoubi et al., 2012). The Chicken Game is defined as a non-zero-game as in this game, that is all stakeholders have a possibility to win or lose the game, and cooperation between them, for example, where both drivers swerve their cars, could lead to a desire outcome, i.e. a win-win situation (Barough, Shoubi et al., 2012). This game is highly relevant to the game of housing demolishing disputes involving stakeholders.

## FOUR DISPUTES

### *Marginalized People in the City*

This dispute happened in March 2008 and lasted for approximately three months until June 2008. In the planned area, there were in total 10 residential buildings constructed by municipal-owned factory 40 years ago in Dalian. These buildings now offer very poor living conditions. The nail household involved in this dispute was a retired Old Couple aged 75 and 72 years old Mr. and Mrs. Z. Mr. Z used to be engaged in lower-level labor at the factory and was allocated the small house with an area of less than 20 m<sup>2</sup> comprising one bedroom, kitchen and toilet. The couple had no children and little retirement pensions of less than 1,200 *Yuan* per month from the factory. The rising commodity price and consumption standard in Dalian led them to be unable to live sufficiently with their pension, so they sometimes have to scavenge for food and also accept government relief.

Housing demolition for the project started in March 2008, with GD Authority collecting land and signing demolition compensation agreement with the local residents. The Authority organized a formal meeting to speak to the residents to explain the project plan, demolition requirements, progress, compensation issues, as well as relocation standards; the Zs attended the meeting and refused the agreement. The couple was thereafter identified as “nail household” by the Authority.

A few weeks later, an ordinary officer from GD Authority called the couple to come to the meeting room of the Authority office for their second conversation about the issue. The conversation was operated within friendly and harmonious atmosphere. During the meeting, the couple described their actual living condition with no children, little pension and having to rely on picking scrap. Mr. Z said to the officers, “We are not unreasonable people. We are marginalized people in the city having no deposits. We do not have any opportunities to meet the requirements of living in a new house either in the current place or other places by relocation, even though you would provide us monetary compensation” (Mr. and Mrs. Z, personal communication, January 15, 2014).

The officers showed understanding and sympathy for the couple, but they did not provide more compensation or a new accommodation to them. The officers said, "Different compensation provided to this couple would result in more serious conflicts and dissatisfactions from other residents in the area" (Mr. L, personal communication, December 16, 2013).

The two parties could not find a solution. The dispute was in a stalemate and slowed the whole demolition progress. The couple's appeal was thought to be reasonable, as they did not price their house out of the market price and compensation standard. What they needed was just a place where they can live to have a healthy and happy life. The same officers held a third meeting with new settlement strategies two months after the last conversation in the office of GD Authority, and again the couple was called to come to the office for this meeting. Both sides settled on a final agreement, and the dispute was resolved successfully during the third meeting. The final arrangement was that the Authority would pay monetary compensation to the Zs and place them in a public nursing home, which involved a number of procedures in Dalian. The Authority would also help them to rent a house and pay them 1,000 *Yuan* every month as subsidy prior to securing nursing home. Finally the couple agreed with this method of settlement, and their house was demolished in June 2008.

### *Gangster Man*

The dispute began in March 2008, was successfully resolved in October 2008 after approximately seven months. The relevant house in this dispute was in the building next to that of Old Couple's. As both buildings were located within the central location of the project, these buildings were of great importance to the whole demolition process. Similar to dispute with the Old Couple, the relevant house here was originally allocated by the factory in the 1970s. However since 2005, the house had already been leased out by the owner to a rural migrant family.

There were two nail households in this dispute: the owner of the house (Mr. P) and a group of people identified by the house owner as gang members. Mr. P was a man of approximately 45 years of age who had a background participating in gang activities. He was sentenced to jail 10 years ago and at the time of the housing demolition, he was the leader of a local gang engaged in debt collection enterprise. Mr. P together with his Gangsters were able to achieve success in their debts collection activities by adopting strategies of harassment, delivering threats and committing violent acts upon various debtors.

Mr. P obtained the news of possible demolition back in 2007 from his friends. He immediately stopped renting his house to the family and considered this to be a great opportunity to claim a large sum of compensation from the Authority. During the formal meeting organized by the Authority when the project plan, compensation and relocation of the demolition was explained to representatives of all local residents, Mr. P refused the compensation.

The Authority organized the first door-to-door meeting with Mr. P soon after. The department head of the office, who is in charge of this demolition, participated in this meeting. In that meeting, Mr. P demanded 5 million *Yuan* for demolition and requested additional monetary compensation for moving and other expenses. These demands were considered to be unreasonable by the officials, because all other owners who had the exact same type of house had relocated with an agreed compensation of approximately 1 million *Yuan*, together with standard moving expense and subsidies.

The negotiation between the two parties did not proceed on a friendly basis. Both sides were uncompromising. In order to fight for his demands, Mr. P hired a group of people to obstruct demolition works. Though the house was not in a liveable condition after June 2008, since all other residents had moved out and the government had stopped supplying electricity, water and gas to the house, these people took turn to guard the house 24 hours a day in order to prevent it from being demolished by the Authority. From July to October 2008, officials attempted to negotiate with the owner, but were deterred by these hired thugs.

Eventually, the department head of GD Authority and the owner reached an agreement in October 2008 during the fifth meeting between them in a teahouse. They agreed that a higher level of compensation would be provided to the owner compared with others', but not to as high a level as the owner demanded. The public was advised that the level of compensation is the same as those received by others and a non-disclosure agreement was signed between the Authority and Mr. P. To justify the larger than average compensation package, government officials announced that his particular house was fully furnished with luxury materials and products, and therefore demolishing it would result in large loss to the owner compared with others.

### *Factory Property*

This dispute related to a private factory property situated in the center of the planned area. The factory was built in 1997 by a company whose business was making canned fruit. This factory had a land area of approximately 7,000 square meters including two workshops, one store building, one office block and accommodation and board for laborers, as well as big yard for parking and transporting cans. This fruit can business sells their products in the city of Dalian and its surrounding suburbs and towns. Due to its premium product quality and high demands for these fruit cans, the factory's business was prosperous. Therefore, the company had built a large workshop in the city suburb and this factory together with its four buildings was all turned into fruit can storage.

The nail household for this dispute was the owner of the factory property called Mr. J. Mr. J attended the formal meeting held by GD Authority in March 2008 regarding project plan, demolition period and general compensation and relocation standards. The first door-to-door meeting between them was held in July 2008. In

the meeting, the project plan was presented again showing that a number of new planned apartments would be built at the current site of the factory. The Authority introduced the specific compensation standards of demolition to the owner's property. Monetary compensation for demolishing the property, moving expense for factory equipment and construction and decoration fees generated in 1998 would be provided to Mr. J by GD Authority. The officers of the Authority were appreciative and cooperative in the meeting with Mr. J who briefly introduced the current usage and condition of his factory and the importance of the factory to his business.

During the first meeting, GD Authority proposed a total of 40 million RMB to Mr. J. This was stipulated to be the maximum price and the Authority would not provide for any further room for negotiation. Mr. J did not agree with the compensation provided by the Authority on the basis that there was rapid increase in land price in recent years. In a second meeting, Mr. J requested 60 million RMB in order to be resettled from the factory property. The Authority initiated numerous rounds of negotiations without any progress.

The dispute lasted for a prolonged period of time and was one of the longest lasting issues during the entire resettlement and relocation process. After the second meeting, there were no further negotiations between the two parties for about two months. Mr. J refused to have more meetings if his demand could not be met. However, due to the importance of the issue, the longer this issue remained unresolved, the greater was the detriment to the Authority. GD Authority was concerned about the demolition progress whereas Mr. J was not: his factory was still being used for storing fruit cans.

Until November 2008, the agreement for the factory demolition was finally agreed by both parties. GD Authority made concessions and raised its price of compensation level in the third meeting, and Mr. J made no concessions. A valid explanation was necessary to publically explain the additional compensation, and in order to pass audit. The Authority announced that this factory had previously been subject to extensive and premium levels of renovations and decorations; therefore it was necessary to compensate Mr. J for the cost during resettlement of the factory. Mr. J signed a non-disclosure agreement to keep the deal secret.

## SOE

This dispute started in April 2008, over an office building belonging to a State-Owned Enterprise (SOE) in Dalian. The office block was built in the late 1980s designed for staff handling official business, general staff, leaders of the company such as the Chairman, vice-Chairman, presidents, vice-president and managers totalling about a hundred people working in the building at that time. The building had been used for over 20 years for business purposes until 2005, when the company built a new office building within its new factories, 30km away from Dalian CBD and

60km away from the old building. The movement was due to the old office block being too small to contain increased staffing level, rapid and prosperous development of the company through enhanced technology, better management practices and attraction of advanced work force. More importantly, the company became a joint stock company in 2005 controlled by the Dalian municipal government, which had a power of choosing the Chairman. The transformation allowed the company exerting greater influences over the local government employees.

The “nail household” in this dispute was the SOE as a whole. As the officials of the SOE were absent in the formal meeting organized by GD Authority, two parties engaged in their first meeting in April 2008. During the meeting, the Authority reported the project plan of the area; the office block would be demolished. The staffs in charge of the building responded that, “since the company is a joint company, it is necessary to organize a board meeting to discuss this issue, and we cannot give you an answer at the moment” (Mr. L, personal communication, January 20, 2014). That concluded the meeting.

The second meeting was once again organized by GD Authority and held in the meeting room of the company in June 2008. The SOE had established a special committee, while GD Authority had designated higher-level leaders for this issue. This indicated that both sides realized the importance of the issue. During the second meeting, the Authority presented a compensation plan to the company. The Authority proposed to compensate the SOE for decorating expenses dating from the 1980s in addition to general building and moving expenses, despite the fact that the building had become too outdated to be used for business purposes and had been turned into a warehouse. The meeting ended without any agreement. The managers from the SOE said “we still need to take this issue into account regarding its influence to the company” (Mr. L, personal communication, January 20, 2014).

Several meetings followed, but no progress was made until a meeting that was held in October 2008 between the two parties. This prolonged postponement was a result of the Chairman of the Board refusal to attend the meeting with GD Authority despite a number of invitations. Both the Chairman and the Head of GD Authority participated in the October 2008 meeting. The Head of GD Authority explained the project plan, compensation and further subsidies to the company and hoped that the company would accept the proposal.

However, the Chairman of the Board refused the compensation package. He said “we are neither unreasonable nor trying to make profits from the building demolition. The reason we must refuse is because the business was a joint stock company controlled by the municipal government. On the one hand, the Board would be censured by stakeholders if compensations were too low. On the other hand, the Board may be considered to be making profit for itself from this demolition if compensation were too high” (Mr. L, personal communication, January 20, 2014). The business has considerable influence over the city; every decision of the business would attract public attention and would significantly affect its business reputation

(Staff from the SOE, personal communication, January 22, 2014). Hence, from this perspective, the Chairman said, “we would not take the risk of demolishing this building, even though it might be a government project.” (Mr. L, personal communication, January 20, 2014).

Instead, the Chairman advised the Head of GD Authority to remove the building from its project plan. During the meeting, the Head attempted to persuade the Chairman to change his opinion by showing the future plan for his area, and the importance of the project to the city. The disagreement between them delayed the process of the demolition and affected the entire project. Unfortunately, this was the last meeting between the parties, as the company refused to engage in further discussions over the issue. The company said, “We had already stated our immovable position” (Mr. L, personal communication, January 20, 2014). Eventually, no agreement was made between them and the building was removed from the original plan.

## ANALYSIS OF THE DISPUTES

We use the Chicken Game to analyse the process, strategies and outcomes of involved parties fighting for their interests in the above-described conflicts. In the Chicken Game, the best outcome for any stakeholder is to have the opponent to “swerve” (using the car analogy described above), or yield to the other party’s demands, thereby losing the game. The worst overall outcome occurs if no one swerves, as both cars crash and both drivers die (Barough et al., 2012). In the context of the housing demolition-induced disputes, the best payoff for any one stakeholder occurs if its demands are satisfied while the other party concedes. The worst outcome occurs when all stakeholders disagree with the compensation standard leading to a failure in the housing demolition project.

Our findings point to weaknesses in the Chinese resettlement processes that should be remedied to make resettlement smoother and fairer. The remainder of this section discusses the findings and their significance.

We represent these outcomes with numeric values in Table 1. In the value matrix for the dispute, a value 1 is assigned to both parties in the dispute in the event where nobody yields. This is represented in the table as the combination (1,1). Where one individual yields, the winner is assigned a value of 2, and the loser, i.e., “chicken”, is assigned a value of 4. If both stakeholders yield, a value of 3 is assigned.

In Mr. and Mrs. Z’s game, the stakeholders achieved the outcome (2,4). The value of “2” signifies a victory for the Demolition Authority in the game. We assign “victory” to GD Authority because the Authority achieved its goal without yielding to the additional compensation that the Old Couple requested when they first talked to the Authority. We acknowledge that the Chicken Game requires a binary outcome, and that the Authority did yield in the negotiation in a limited way. The Old Couple was provided with some additional compensation; namely, the cost of

being placed in a public nursing home. However, their placement in a public nursing facility is not comparable to a property title or a transferrable asset. The cost of placing them into a public nursing house is much less than providing the monetary compensation the Old Couple asked for, and thus does not represent a “win” in the game for Old Couple. The Authority was by and large the winner of the game. The dispute involving Mr. P was resolved in the reverse way: the combination (4,2), indicates that Mr. P won the game. Although the Authority finally was able to demolish the house, they paid a significantly higher amount of monetary compensation for his home than was paid to other local residents.

**Table 1:** Strategies available in the Chicken Game

Strategies in the Chicken Game Yielded		The nail households	
		Yielded	Did Not Yield
The Authority	Yielded	(3,3) No observations	(4,2) The Gang Man Mr. P and the factory property owner Mr. J
	Did Not Yield	(2,4) The Old Couple Mr. and Mrs. Z	(1,1) No observations

The above two disputes share the same feature in that both were individual residents, but eventually the two disputes were resolved differently. To compare the differences, it is prudent to first understand the different initial motivations of the two *dingzibn*. The real intention of Mr. and Mrs. Z was to have a place to live for the rest of their lives. Whilst they asked for more compensation during their discussions with the Authority, their request was regarded as reasonable and not motivated by greed. The Authority understood the genuine difficulties facing the Old Couple. However, Mr. P had a completely different set of motives. He was hoping to extract more profits through this housing demolition project and he viewed this as an opportunity to make money from the Authority. Hence, he demanded and received five times more than what other residents were able to obtain.

These differing motivations led them to act differently and achieve different results in their dealings with GD Authority. They also adopted different strategies to achieve their purpose. For the Old Couple, as long as they were provided with a place to live, in this case public nursing home, they would agree to the negotiated compensation. For Mr. P, he refused any compensation and relocations other than those he demanded. At least in part, it was the varying power dynamics and motivations among disputants that ultimately contributed to the different resolutions they received.

As a marginalized group in the city of Dalian, the Old Couple had no money and no political influence to fight with the Authority to further their interests. In

contrast, the Gangster possessed greater resources. The Authority had no procedures in place to deal with the Gangster man's particular form of resistance. Facing delays of more than half year from the Gangster, the Authority decided such delay to the project was not worth the effort, and therefore they lost the game by paying much higher compensation to Mr. P.

In short, the results of the Chicken Game indicate that neither of the disputes achieved the ideal result of mutual compromise. One party yielded in both cases. The factors underlying which party yielded were dependent on the resources for resistance that each stakeholder possessed. Therefore, the Authority treated the two disputes differently during the resolutions. For example, the Authority designated ordinary officials for the Old Couple's case, while department head of the Authority dealt with the Gangster Man's case in person. The place of meetings and conversations with the two nail households were chosen differently by the Authority. The couple was called to come by themselves to the meeting rooms of the Authority for two conversations, while the Gangster Man was invited to a teahouse for his five meetings. The teahouse was more formal place for meeting, indicating that the Authority was worried Mr. P would cause further troubles. They consequently paid more attention to the Gangster Man – a sign of respect, whereas, the couple is less influential, and the Authority devoted fewer resources to resolving their dispute. These different attitudes and behaviors of the Authority to the two individual nail households also significantly contributed to the different disputes' resolutions.

Also, by applying Chicken Game to explain the dispute with factory property, the combination of matrix is (4,2) in Table 1 indicating that the Authority made concessions, while the owner, Mr. J, insisted on having his demands met. He ultimately "won" the game. In this dispute, the Authority is the chicken.

The trigger of Mr. J's case was that he wanted to take advantage of this opportunity to claim more compensation. Hence, he sought high sum of compensation that GD Authority would consider to be excessive and unfair. In order to analyse the underlying reason of the dispute resolution, it is relevant to discuss the background of Mr. J. As a successful business leader, Mr. J has business training and extensive social connections. This placed him at an advantage in influencing the resolution of the dispute. The site of his factory was situated right in the middle of the project area and therefore could not be excluded from the land development plan. These factors provided Mr. J with more confidence to negotiate with GD Authority to extract a higher price. The power and self-confidence of Mr. J in turn led him to behave more assertively in negotiations. This could also be used to explain the fact that Mr. J only required three face-to-face meetings with the Authority to achieve his goal. The resolution of this dispute verified the importance of locations of the property, which acted as bargaining powers of Mr. J fighting for his interest. The Authority attached greater importance to Mr. J with superior location.

The dispute involving the SOE was completely different to the disputes with the Old Couple Mr. and Mrs. Z, the Gang Man Mr. P and Mr. J, where these people

wished to work with the Authority to move toward mutual benefits (Eisert et al 1999). Whereas the three other cases wished to work with the Authority to move toward an outcome, the SOE was primarily concerned with avoiding any risk that may have resulted from the demolition, and wished to avoid resettlement altogether. Therefore, during the few incidents of contacts with the Authority, the SOE firmly refused the demolition project to affect their property. The SOE, in essence, was being non-cooperative with the Authority. The firm attitude of the SOE in objecting the demolition plan could be attributed mainly to its strong political background. As introduced above, the company is a joint stock company controlled by the municipality, which plays a role of deciding the Chairman of the Board. In this case, the company could be considered as a special governmental department with the same administrative level as the Authority, and the Chairman of the Board selected by the municipality was considered to have at least the same administrative status as the Head of the Authority.

This status equivalence was manifested in non-cooperative behaviors during the negotiations. For example, the negotiation between GD Authority and the SOE was held four months after the second meeting. This prolonged wait was caused because the Chairman was engaged in other business and therefore had no time to meet with the Head. The appointment was delayed again and again until the Chairman was available and during the time of delay, the only thing the Authority and the Head could do was to wait. Even Mr. J, the private factory property owner, who used its superior geographical location as a strong bargaining power to fight his demands, was not as tough as the Chairman.

Overall, these case studies suggest that the Authority has the capacity and willingness to engage flexibly in negotiation with nail households in order to meet their needs in a resettlement process. Ultimately, the Authority also “won”, resolving the disputes in reasonable time periods and proceeding with the land sales to property developers at the earliest possibility. The Authority’s flexibility allowed them to avoid further risks and more serious events that would have jeopardized the projects. The dispute resolutions achieved win-win situations, i.e. the most desirable outcomes and satisfactory resolutions for all stakeholders, through cooperation (Eisert et al 1999), for instance through negotiations and appreciating others' demand and considerations according to Chicken Game (Barough, Shoubi et al., 2012). These flexible solutions to demolition disputes signify some improvement of housing demolition processes in China.

However, these flexible disputes resolutions also raise issues of fairness, transparency, and consistency. Due to lack of transparency of agreement on compensation and relocation between the Authority and each affected resident, most residents and property owners had no idea about how much compensation their neighbors had obtained. People with more resources, a business background and closer connections to government were able to obtain better compensation in this case. This is consistent with other findings ( e.g. Ren, 2008).

Future nail households might learn and adopt the same means of seeking compensation in the way pursued by Mr. P and Mr. J. These people would believe—with significant supporting evidence—that the longer they resist, the more monetary compensation and better relocation they can obtain from the Authority (Weinstein and Ren, 2009). A more-transparent compensation and resettlement process could significantly improve the efficiency of large-scale resettlements by reducing the incidence of nail households and reducing the negotiation time for each dispute.

## CONCLUSION

Correcting the inefficiencies in the resettlement system is a significant policy concern in China. High reliance of local government on land sales to finance local government operations (Wu, 2012) has led land to become a strong means for local government to increase fiscal income. Land sales have become one of the most important forces promoting local development and urbanization in China (He and Wu, 2005). This creates pervert incentives for local governments to implement haphazard and irregular resettlement processes where compensation is arbitrary or even preferential to the powerful.

We have seen in the above case studies that local governments are capable and willing to engage in some negotiation, and to raise compensation levels in some cases. We used Game Theory to structure our approach because the theory is a useful tool to analyse the actions and decisions of each player and the outcomes of the disputes in accordance with others' actions and decisions in the game (Barough et al., 2012). The powerful actors in these cases took advantage of their resources and talents to achieve a better position from the negotiation with the Authority. Their power allowed them to achieve larger gains from negotiations than the less powerful actors, for example the Old Couple, who had no power to negotiate and could not compel the Authority to yield. These dispute outcomes represent a failure of the system of resettlement governance in China: public authorities should protect the powerless, not take advantage of their lack of resources to negotiate. China's resettlement processes are in need of reform, so that not only the powerful are resettled fairly.

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