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Discussing Dilemma of Taiwan Urban Renewal System Application from Behavior Decision-making Viewpoint

Meng Chiu Chang Fujian University of Technology Fuzhou, China

Abstract—Urban renewal is an important manner to vitalize urban land during urban development, and an important tool for promoting urban economic development. On the condition of property right privatization, a complex subject is faced during urban renewal process, with high negotiation cost for a small number of people who do not agree on renewal, which makes the renewal process delay. Since implementation in 1998, Taiwan urban renewal system has been modified for several times in order to adapt to environment transition and solve problems of the participators who did not agree; however, the problems still cannot be solved. Firstly, the paper shall clarify the purpose and implementation method of urban renewal promotion policy, with event of nail households contending against "Taipei Shilin District Wenlinyuan" urban renewal as the background case, combine the behavior decision-making theory and Williamsontransaction costs theory, and design the interviewing questionnaire to interview the relevant personnel. Finally, it conducts reality and theory cross-over analysis on the questionnaire interviewing results, analyzes the viewpoint for Taiwan urban renewal questions in dispute based on different standpoints and different viewpoints, and makes conclusions, in the hope for giving reference for the subsequent research in future.

Keywords—urban renewal; nail households; behavior decision; transaction cost

I. INTRODUCTION

Why is there urban renewal? What is the essential significance of urban renewal?

Seeing from historical, the city of Taipei is the earliest developed city in Taiwan, having the early stage old houses constructed when the national government moved to Taiwan in 1949. This kind of houses have few elevators, narrow alleys, old water and electricity pipelines, and no disaster and earthquake prevention functions, which may influence the residents themselves, residents in adjacent regions, and their human public security, especially not suitable for the elders to live; thus, urban renewal is put forward based on such a concept.

From market demand, it is the same for any kind of goods that when a new product is launched on the market, it may certainly cause wide market turmoil. The product sales price growth depends on market capacity. Once product sales reach certain growth, it will be saturated, at which time innovation is required to absorb consumers and hence the product will be renewed. The product of house is not an exception. Lands and houses are almost deemed as a commodity in Taiwan, with development profit. Construction of houses is based on lands, so in case that no land can be provided in the region for reconstruction, the developers will think to "remove old houses to construct new ones" for their own benefits.

From the price of a single commodity, real estate may be the one with the highest price, involving a large supply chain system. Academically, real estate is a commodity, but it has a great effect on raising national economy, and most of the money gained during human's life is distributed for residence demand, such as furniture, home appliances, decoration, etc.; thus, real estate transaction is closely related to economic activation, which can drive industry prosperity. In total, the purpose of urban renewal is for economy, and its significance relies on influence on overall economy.

Promotion of Taiwan urban renewal mainly depends on "right conversion system" to deal with property rights of related creditors in a fair and impartial manner, and update and distribute lands and above-ground structures reasonably, so as to make the related creditors promote urban renewal in a mutual cooperation manner. Herein, the related creditors include landlord, lease, mortgagee, owner of house encumbrance, etc. The actual operation method is similar to legal co-built system of "stereometric urban land consolidation", and the difference between them is that the legal urban land consolidation is only plane land redistribution. Once it is performed to house construction, it is private contract completed between the landlord and constructor through agreement; thus, the conditions of each household are inconsistent. However, urban renewal is done between government and landlord or between developer and landlord, and for the public contract completed through negotiation of several times where conditions of all the participators are consistent and involve redistribution of the area and right holding of lands and buildings.

II. BACKGROUND TO THE STUDY

Urban renewal in Taiwan means the same as mainland, with the legislative purposes mainly including: promoting planned redevelopment and reutilization of land in city, reviving urban function, improving living environment, and increasing public benefits.¹In detail, it is to vitalize urban lands, re-plan and design for redevelopment and reutilization, provide modern facilities with five-connection-one leveling at least, and promote the living standard of residents within the community, so as to activate local economy. The implementation methods can be divided into the following types according to the using condition of real buildings; (1) reconstruction after overall removal; (2) performing appearing treatment and seismic reinforcement for the buildings within the existing renewal districts, internal reconstruction and rebuilding, and enriching the deserved public facilities; (3) enhancing land using situation and construction management within the renewal districts, and improving public facilities of the renewal districts to keep a good condition. The government and landlord shall entrust the developer to handle the planning design and the entire construction project.

Taiwan Urban Renewal Regulations was implemented in 1998 and ended on Dec. 31, 2015, with 1,229 urban renewal units marked according to the Regulations (247 units marked by municipal government, 982 units marked by the landlord through application). The total marked area is 562.23 hectares, among which 240 cases have been certified to implement, 88 cases have been completed, and 65 cases are under construction, creating real estate value of 835.552 billion New Taiwan Currency. The overall pubic facilities will be promoted after renewal, to provide more parking spaces for citizens and save huge expenses for building public facilities for the government.

2017 Taiwan residence statistic data shows that Taipei has 885,789 residences currently, with 542,882 residences of over 30 years, accounting for 61.28% of the total ratio.² In order to quicken promotion of urban renewal, the buildings with construction period of over 30 years are deemed as old buildings in 2017 Taiwan Urban Renewal Regulations. And the Regulations provide added plot ratio for the communities applied to handle urban renewal, with building encouragement measures for tax reduction. Taipei deletes the limitations in Point 1 of Item 7 [Households to be removed shall account for less than 10% of the total households, and the total households shall be less than 5 households] in the former Urban Renewal Rules [Supplementary Regulations on Handling Request of Urban Renewal Rights Transfer Implementer to Remove or Migrate on Behalf of Others by Taipei Municipal Government Urban Renewal Office According to Provisions in Article 36 of Urban Renewal Rules]. This action mainly aims at the nail households problems arising from urban renewal, while the overall mechanism still require negotiation between public and private departments. In other words, the developers must negotiate with the nail households for the second time, and invite public departments to negotiate if no agreement is reached. If they still cannot make an agreement, it is necessary to invite the urban renewal advisory committee to set up a special team for coordination. Two problems appear here: the first one is whether the buildings of over 30 years shall be deemed as old buildings? The second one is that if it is performed to the subjects of final coordination but no agreement is reached, whether the government will perform forced demolition regardless of popular will?

Demolition of private houses is an important thing involving private property right. The governmental units remove the removal limitation in decree; thus, although it can promote efficiency and speed of urban renewal, but there is still popular discontent. However, due to many defects in Taiwan Legislation, the urban renewal system have frequently suffered defiance of landlord and relevant personnel since its implement, and nail households become a [tool] for the intentional personnel to contest relevant policies and systems of the government on the condition of information asymmetry.

III. DISCUSSION AND ANALYSIS ON THE DISPUTABLE PROBLEMS OF URBAN RENEWAL

The most of urban renewal always happens in the areas with matured urban development, where most buildings are saturated, the price of soil is valuable, and there is no land to be used for residence building. At present, due to the limitations of the government manpower and financial resources, many various inducement mechanisms are set in policies to encourage the folk to participate in the promotion of the urban renewal undertakings, for the purpose to promote a bright economy. Meanwhile, lots of disputes and conflicts are caused from the huge profits arising from land price differences before and after urban renewal; therefore, we can understand this as the show of a game in the process of series of trades between public (government) and private sectors (developer, investor and the landowner). In the public and private cooperation and development process, the government concerns about how to vitalize the urban stock land through land utilization and management in the urban plan, so as to conform to the integral urban development. while the developers concern about how to earn more benefits through the operation and sale of the market; and the landowners concern about how many areas belonging to them they will get in future and how much compensation they will get. A small number of trades agreed are caused by the uncertainty on the future and the exclusiveness of the assets, making a few landowners hold a haughty attitude in the process of making decision.

The well-known "Wenlinyuan Event in Shilin District in Taipei" case is a typical haughty nail household case. We can see that the land of the strugglers is the gore in the full slice land to be developed, with no any separate interconnecting roads. For the developer and the social public, the strugglers are the "minority"; therefore, they sought for sympathies and supports of the social public by virtue of the advantages of the minority, claiming more compensation than other relocation households. But they did not realize that if not being revolved in the renewal, they will

¹ See :Urban Renewal Regulations http://org.gov.taipei.gov.tw

² See: lawsystem of Taipei. http://laws.taipei.gov.tw

face the difficulties of having no own passable roads. Meanwhile, the land scope of the strugglers is the irregular abnormal land for which the building line is not suitable according to relevant regulations of Taiwan Buildings Laws. Finally, these strugglers face the dilemma that their buildings cannot be removed and rebuilt. This is the similarities of the disregard of law by Wang's and the adjacent buildings.

Let's view other decrees. in case that the strugglers want to rebuild their land, their land must be combined with other lands, and then the building line can be drew, and the land can be used for building,³ that is to say, the land of the strugglers is the land with no road connecting to external roads. Therefore, even though the strugglers are not willing to participate in the urban renewal, their land will not be built separately in future, and the public safety of the residents here after the urban renewal will be influenced by the old buildings of these strugglers. After the future urban renewal, it is also necessary to plan a road for their access, but at this moment the struggler must pay the road rental fee for their access. This is a special point of this case.

In the case mentioned above, based on the opinions of Behavioral Economics, the doer is not a rational-economic man; therefore they will be interfered in the behavior decision by personal emotion, perception and the outside world (Wliamson, 1975; Mises, 1996). Under the concept of private property right, costs and benefits will be considered in all the transaction behaviors. Only when benefits are larger than costs will the inducement mechanism for solving problems be generated. (Wliamson, 1999) In theory, the Coase theorem states that when the trade of two parties has trade costs, the property right system is the result of how to operate or influence efficiency (Coase, 2002). In other words, as long as the trade costs of the two parties is not zero, it is possible to use the voluntary trade among the property rights defined clearly, so as to realize the optimal configuration of resources, and reach the optimum realm of the Pareto through improvement. Of course, this is the result of many negotiations of the two trading sides. Therefore, the "Trade" in the urban renewal in this research is defined as the voluntary trade among doers, not the compulsivity trade.

Firstly, we must know that the urban renewal system in Taiwan adopts the majority decision in the design, i.e. the urban renewal can be conducted as long as 4/5 of the legal threshold is reached, and the participants of the 4/5 are the voluntary trade. The rest 1/5 not agreed with the urban renewal are the compulsivity trade. Although there is voluntary trade in the system design, it is not 100% obviously, that is to say, the current urban renewal system cannot obtain effective conclusions. The condition of information asymmetry also provides the brokers with concealed intention with the opportunities to utilize various methods to get the government information, and utilize the information asymmetry of the two trading parties to purchase the consent right of the 1/5 with a low cost in advance before the renewal scope is issued or before the developer starts the land integration, and then force the landowner who agreed to participate in the urban renewal to conduct the extorted negotiation, so as to make the negotiated contract system face difficulties in implementation.

IV. EMPIRICAL ANALYSIS AND DISCUSSION

We can see from the discussion above that the personal behavior decision is always influenced by the personal factor and other external factors, and it is difficult to make a quantitative measure; therefore the Linwenyuan case in Shilin district, Taipei mentioned above is used as the background for designing the topic of an interview which will be conducted aiming at specialists and experts, real estate appraisers, landowners, and the residents, so as to verify the theory and practices mutually in the empirical part.

• Question 1: What is the most crucial factor that will influence you whether participate in the urban renewal or not at the early stage of the urban renewal?

According to the analysis on statistic results, we can see that for the landowner of the renewal area, the area to be distributed to them and the floor after the renewal are the problems they concern about the most (accounting 60%), while what the lessees concern about is how many cash compensation they will get if the landowners does not participate in the urban renewal (accounting for 40%). This shows different standpoints of the landowners and the lessees. Their key consideration points are different, after all the lessees will get the compensation for the removal from the landowners. Therefore, for the lessees, the compensation that the landowners obtain is closely related to them, which verify that [the complexity of the subjects in the urban renewal, the benefits consideration and discussion based on individual benefits will easily result in the dilemma in the mutual negotiation. Meanwhile, the wildcatter will always interfere part of the landowners and incite them, which will make the urban renewal generate more multiple negotiation costs in the aspect of trade cost.

Although the urban renewal is also a kind of land development, but it is more complex than that of the general land development, especially, when it is defined as "renewal scope", the subject matters of the urban renewal will belong to the special assets immediately. Besides the visual and necessary costs in the process of urban renewal, the developer shall also bear other costs, such as the time costs, consultation costs, funds investment costs, and other unseen costs. These costs are the necessary costs of the developer. In addition, there are the treatment problems of scrap value of the existing buildings. Therefore, it can be seen that the consultation difficulties shall have the higher technologies than the general development behaviors. The participants include the landowners of the rebuilding area in the renewal unit, the owners of the legal buildings, other rights holders, and the developer. We can see that the relationship of the obligees in the rights changing has been enlarged, and the complexity of the subjects also brings an obstacle for the demolition disputes in the rebuilt process and deepens the game among them. Actually, it is common that the owners of the houses always have the disputes with the lessees for the termination of lease; the lessees ask the owners of houses to

³ See regulations of the abnormal land and autonomous regulations on urban renewal by Taipei City,http://uro.gov.taipei.

provide them with the removal compensation, especially the decoration fees and operation loss are involved when the problem will be more complex (double nail households), causing the difficulties in signing treaty, making contracts more complex, and making the whole urban renewal in a difficult situation.

In the identification scope of the landlord in the urban renewal, not only the relation of the landlord is enlarged, but also the rights of the developer are enlarged. For example, before the urban renewal, only the owners of the lands and the owners possessing the lands and the buildings can be distributed with the lands and buildings after the urban renewal. The developer can obtain the land and buildings with additional building bulk; it seems perfect because each party takes what they want. But the public think that the buildings increase for the reason of building bulk after the development, and the future appreciation benefits of these buildings belong to the executor (the developer). They think that they will not obtain the corresponding development benefits. So the differences in their concept intensify the contradiction between the developer and the public.

We can see that besides the owners, those who refuse to participate in the urban renewal also include tenants, owners of superficies, and legal landlord of other rights, based on the bounded rationality of all the subjects at this time, all of them stand on the point of ensuring their own rights not be damaged by others. The two trading Parties sign the trade contract in several negotiations through the middleman; at this time, the contents and purposes of the contract are to reduce their mutual suspicion and to increase the market transactional efficiency. But, on the other hand, these people can ask for higher compensation to the owners of the property right for any reasons, which makes the owners of the property rights ask for the developer, forms the vicious circle, and implies the complexes of the property rights and the game between all the landlord and the developer.

In the view of correlation between economics and behavior decision, the behavior decision made among all the subjects of the urban renewal is related to the trade atmosphere formed in the whole complex social environment. The decision mode among the individuals is indirectly influenced by the informal restriction of other behavioral agent(North,1990); therefore, it is impossible in case of discussing in the view of rational behavior. While discussing the whole land development process in the view of the economic subject, we can see that what the economic operation process shows finally is the economic behavior process of the people. Therefore the behavior analysis on human must be conducted together with their observation to explain and discuss their behaviors by their minds, and the non-rationality economic man behavior will be showed externally at this moment. For example, like the behavior of nail households, the complex trade may be the emotional beggar on their house that reported by the medium, and may have other hidden demands in the process.

• Question 2: In your opinion, why does the one refusing to participate in continuing to struggle in the process of urban renewal appeal?

The interview result shows that, in the part of landowners and the lessees, 100% interviewees believe that the reason why the nail households continue to struggle is that the internal landlord cannot agree on the right value obtained. The statistical materials show that all the landowners believe that the struggle of the nail households is caused by the complex property rights, and too many holders make it difficult in the internal coordination on the distribution by themselves, causing the externalities of the urban renewal. In addition, we also conclude that 39% of them hope to obtain more compensation, 46% of them have the emotional emotion on their house, and the rest 15% is the condition that the internal landlord cannot agree on the right value obtained.

In the view of the developer and the professional people, they think the reason why the nail households struggle is their emotion on their household and hope of obtaining more compensation than other households. This shows that (1) the owners of the property rights pay much attention on their property rights, because the emotion is an imponderable matter. (2) Other residents have the different opinions with the developer and the professional people, which explain that there may be the true reason hidden in the struggle behavior of the nail households. They express their true reason in the manner of emotional appeal, realizing the externalization of their internal cost, attracting the attention of the social medium, so as to obtain much attention and then ask for more compensation and more distribution area from the developer. The results obviously overturn the theory of Coase that the trade cost will be the lowest through the negotiation between the parties in free market. Therefore, we design the next question, interviewing the different subjects.

• Question 3: What do you think about both parties negotiation way adopted in the execution of urban renewal?

Scholars think that, if plurality system is adopted for the whole slice of land development, the whole piece of property can be disposed as long as statutory proportion is reached. And it is beneficial for the owners of public lands, because coordination cost can be saved. However, regulations of plurality system are designed to avoid boycott of a few opponents, which is "hold up". On the other side, the majority bullies the minority; thus, plurality system becomes a tool for bullying the minority. But appraisers and building planners have different views. In summary, trust foundation between developers and landowners is weak, so much so that consultation and coordination efficiency is very low. If landowners insist on the high price, coordination cost between developers and landowners will largely increase. In case of government intervention at this point, coordination cost will be reduced. In addition, intervention of government power will be justified. Due to greedy human nature, coordination cost through intervention of government power is significantly lower than that of free negotiation in some extreme cases, for example, compulsory expropriation.

Landowners and residents think that there must be some interests in controversy. The purpose of disputes is to gain more profits, and disputes are one of ways for solving current deadlock. Now the media only reports how pitiful and weak are the minority. They ignore the appeal of the majority and its legitimacy. Urban renewal is good for the whole society, and the only thing we can do for a few opponents is to try to negotiate with them. But if a few opponents persuaded by other interest groups adopt unreasoning struggle, for public interests of the society, the government will use public power to handle it. In addition, some landowners also explain that, in the early days of urban renewal, many brokers want to purchase their property, and struggle of nail households is caused by fragmentation of common property right of family members and internal conflict produced by uneven distribution for family members.

To sum up, the results of this study show that features of human behavior are not completely rational, and some behaviors are destructive to society; in the non-rationality hypothesis of economists, nail households show "emotional behavior", "impulsive behavior" of non-rational economic man. Under the situation of information asymmetry and uncertain environment factors, they will choose an extreme mode and hope to realize the decisions that are acceptable to the individuals, but that are not optimal decision of Paretto. On the other side, personal decision mode will inflict losses on other consent participants and the society. Learned from the case, we know that fragmentation of property right is one of factors for hindering land development.

After all facts that the problem arising from complex rights subjects in urban renewal are as follows:

• Voluntary trade and forcible trade: hold-up of a few landowners

Firstly, the biggest problem existed in policy practice is mutual distrust of human nature. Secondly, the problem is information opacity, so as to result in information asymmetry. Large cognitive differences exist between the public and developer as well as expert and scholar due to difficulty of negotiation. From the economic perspective, it is necessary for government to intervene in case of market malfunction; however, the new problem is to what extent the government can intervene. Therefore, it has to go back and talk about whether benefit of law for the majority decision is deeply popular or not when talking about majority decision. At the moment, the study also verifies that the current governance model of urban renewal in Taiwan conforms to the mixed type governance and organization model and the way to deal with trade costs. Moreover, it allows for the space for flexibly dealing with disputes through selfnegotiation of two trading parties, and allows for intervention and coordination of the third party.

• Special landowner and key technology: opportunism

Taipei city is a mature city developed early. Public representatives, officers and professional investors have started acquiring land and property right of buildings cautiously many years ago based on expected expansion range of urban planning. Once the city is developed according to urban planning, these investors would be like a tiger with wings, and they can develop it as long as they master most of the properties, meet the legal requirements and obtain the landlord's consent. This can guarantee that these investors will develop the city unless some expose that they are false landowners (fake identity), or developers have funding gaps. Local officials and public representatives who are easy to master information can master [key technology] of the development. In addition, they are the object who gets roped by developers with necessary [additional] trade cost, and public representatives bind up with local officials to vote for the future, so as to urge the implementation of government policies.

Relevant information related to the current urban renewal program is not transparent, and many single regulations are unable to explain all problems; thus, special regulations and rules for implementation of all regions must be combined. Most of landowners or residents feel difficult to understand statutory order or provisions. administrative At the moment administrative power sometimes plays the role of "suppressing" he public rather than of helping the public; thus, landowners or residents worry about that they will be "treated specially" and have to sign a consent form.

V. CONCLUSION

Urban renewal exists in every advanced country of the world, such as America and Japan: thus, nail households do not just exist in a single area. During the integration of land development, each piece of land is like one piece of the puzzle; and based on self-interest mentality of non-rational economic man, the owner of each piece of land wants benefit maximization, so the hinder to other owners and their holdup behaviors makes an impact on other co-owners. These owners know this principle and take it as the biggest bargaining chip in negotiations with developers; thus, asset specialty makes trade object unique, so as to form bilateral monopoly on transactions. Bilateral monopoly is the most important trading factor in a deal, and when both parties have no other choices, explicit and implicit trade costs among both parties are hard to be calculated in quantity. This is because trade costs for whether selecting cooperation or not by both parties waver between zero and one of all trade surplus, so as to affect the behavior decision of the traders. This also shows the study viewpoint proposed by the researcher that trade costs are unable to be calculated in quantity.

Therefore, under the consideration of personal interest maximization, trading mode of bilateral monopoly will bring about increasing difficulty in remaining trade surplus distribution. For developers, complicated procedure for obtaining urban renewal planning scheme with given renewal range from government, getting permission for development and integrating are easy to result in rentseeking phenomenon. This is due to sunk costs (such as time cost, manpower cost, financial cost) produced in development of developers; and once agreement problem occurred in the development results in that development is



unable to be continued or developers turn to other development schemes, these sunk costs which have paid and are unable to be recovered will make impacts on trade decision-making.

Urban renewal movements in the mainland are ongoing ardently, and the land of China belongs to the system, which has specificity and is different from regions. Land is given from relevant right holder and funds come from developers in Taiwan urban renewal; however, with the same goal, they are devoted to improve living environments. Thus, there is no doubt that urban renewal and city renovation shall be public interest. In fact, the public can share development gains increased by environmental improvement; therefore, how to reduce trade cost in the urban renewal and expropriation process is the goal to be achieved jointly.

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