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Response: institutional design

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Q4 : "Lai, forthcoming" has been published, please give details for references list following journal style.

Response: Lai, S.-K. (2021). Planning within complex urban systems. New York: Routledge.

Q5 : Please provide missing volume number for reference "Porter 1995" references list entry.

Response: Porter, M. E. (1995). "The Competitive Advantage of the Inner City", Harvard business review. 73(3) (May/June): 55-71.

CM1 : Please replace my affiliation with: School of Public Affairs, Zhejiang University, Hangzhou, People's Republic of China

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Planning for urban redevelopment: a transaction cost approach

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ABSTRACT

Urban redevelopment incurs a significant amount of transaction cost that needs planning to cope with. Planning is conceived of here as either public intervention or information gathering to reduce transaction costs mainly due to uncertainties. In this paper, we propose a conceptual model of the urban redevelopment process in the complex, self-organizinged city and use the case of Taipei City to argue for the necessity of planning in that process. In particular, through a field survey and three focal group meetings, we found that though the institutional design of urban redevelopment in Taipei City is incentive-focused, significant transaction costs deriving from coordination among private/public sectors render the design ineffective. Therefore, we strongly argue, as a theoretical contribution of the research, for strategic plans city-wide for urban redevelopment in Taipei City in order to alleviate the impediments caused by transaction costs.

KEYWORDS

- u~~U~~rban redevelopment
- transaction cost
- planning
- building bulk incentive**[Q1]**

Highlights

– We propose a conceptual model of the urban redevelopment process in Taipei City.

– Transaction costs deriving from the process render the institutional design ineffective.

– Strategic plans are needed to alleviate the impediments caused by transaction costs.

1. Introduction

There is a lasting debate between planning and markets in the contemporary development of urban planning theory (e.g. Healey, 2007). Traditionally, urban planning is seen as a kind of government intervention to regulate and rectify the phenomena of market failures in cities. That is, urban planning is the activity 'to keep public interest' (Ding, 1997) 'in the public domain' (Friedmann, 1987). However, another emerging question is how to balance between government and markets in urban planning theory because urban land use is not a single activity only belonging to government but a serious game with many stakeholders in the public and private sectors seeking their respective needs on land uses (Kaiser, Godschalk, & Chapin, 1995). In addition, stakeholders play an important role in shaping urban landscape and creating vibrant urban development. Various stakeholders perform their different roles and values identifying the multiple structures of property rights in a given locality. Through their structures, they create diverse land use activities and trigger the urban development process (Zhu, Sim, & Liu, 2005).

Whilst the stakeholders are enormously involved in the serious land use game, public planning for land use still functions in our urban society. The real estate sector, a fundamental stakeholder linking public agencies and other private practitioners in the urban land market, can be taken as one of the driving forces creating vibrant urban spaces. In contrast, urban planning is usually seen as one of the direct roles guiding some part or all of urban development, which is ' … too risky for private sector to undertake or which lie beyond the logic of individual capitalists to provide, such as transport infrastructure or housing for the poorer classes' (MacLaran, 2003, p. 3). Beyond the traditional difference of function and operation between public planning and private property development on urban development, planning and markets are not inevitably inter-contradictory concepts but more mutual cohesive ones that might enhance each other. Some literatures have indicated the integration of planning and markets in the process of urban development. For example, in the scope of market, broadly defined, some voluntary arrangements in civic society are capable of producing either public goods or social infrastructures and services as the public sectors are (Beito, Gordon, & Tabarrok, 2002). Correspondingly, over the last 40 years, urban planning has increasingly adopted the entrepreneurial approach providing selective inducements to tempt developers towards certain courses rather than others (MacLaran, 2003). Therefore, the urban space is a complex interface for public and private stakeholders to coordinate planning and markets activities. The appropriate boundary for public planning and private property markets relies on where, when, and how to make plans for markets. That is, we argue that public planning is the pivot of institutional governance for maintaining healthy market mechanisms required in the urban development process. It is also true in the process of urban redevelopment, the important constituent in the lifecycle of urban dynamics (e.g. Huang, 1987). In particular, spontaneous order derives from market mechanisms, whereas planning takes place within the city and incurs man-made order. The challenge for planners is to reconcile the two types of order (Lai, forthcoming). In short, our viewpoint regarding planning vs. markets is that both are reconcilable parts in the larger context of self-organizing urban development process.

The paper intends to address the question – whether development right incentives, a market-oriented means in public planning to affect private investments and development, can encourage developers to apply redevelopment business in an urban redevelopment area? The presumption is that the nature of urban redevelopment is a complicated land development process including at least two phases – property exchange (the preparing and developing phase) and property reallocation (the redeveloped phase), which, especially the latter, require a series of complex designations of property rights for land and buildings. It is a process that inevitably incurs enormous transaction costs and many uncertainties faced by the developers and landowners in the market. The complexity of designating property rights in urban redevelopment justifies the need for institutional governance to form an interface between planning and markets. In other words, the question to be addressed is an institutional one relying on the transaction costs and uncertainties for the institutional design to be useful. We argue that the incentives to promote redevelopment can work unless the benefits they bring about can cover not only the explicit development costs but also the implicit transaction costs. Therefore, a well-designed institution for urban redevelopment must take into account transaction costs and uncertainties and provide appropriate institutional mechanisms to reduce risks in order to reduce transaction costs. The paper attempts to use Taipei's experience of urban redevelopment as a case study and argues for whether the institutional design of building bulk incentives works.

In Section 2, we depict the relationship between urban redevelopment and transaction costs. In Section 3, we introduce the policy context of how urban redevelopment areas are designated in Taipei City. In Section 4, we introduce the research methodology and examine the performance of the building block incentives practiced in Taipei City through the lens of the transaction cost theory. We conclude in Section 5.

2. The transaction cost approach to urban redevelopment

The literature on development clusters and urban redevelopment is extensive (Campbell, 1996; Fitzgerald & Leigh, 2002; MacLaran, 2003; Porter, 1995; Portnov & Erell, 2001; Roberts, 2000; Scott, 2000) and beyond the scope of the present paper. Recently, large-scale urban village redevelopment projects have been implemented and analysed in China. For example, Yuan, Yau, Bao, and Lin (2020b) develop an analytical framework for understanding the heterogeneity of institutional arrangements for urban village redevelopment projects in China from the perspective of neo-institutional economics. Other related works include in-depth case studies on urban village redevelopment projects in Zhejiang Province and Guangzhou City in China (Yuan, Yau, Bao, Liu, & Liu, 2019; 2020a). To simplify, we focus here on the transaction cost approach to urban redevelopment. The scope of regenerating downtown transcends the traditional distinction between planning and markets because its process can be divided into several phases respectively requiring different extents of involvement from either planning or markets or both. That is the reason why each phase of redevelopment faces more or less transaction costs influencing the conditions of perfect market mechanisms and necessitating public planning in urban redevelopment. For the role of planning played in urban redevelopment, Schaeffer and Hopkins (1987) argue that planning can yield information that is valuable because of the costly decision making in private land development. From this viewpoint, planning connotes the activities of producing information to reduce uncertainties with respect to the environment, related decisions, and values. Planning activities can offer a clearer environment of information signalling the potential benefits or intangible risks in the redevelopment projects. It also reduces transaction costs derived from incomplete information.

In essence, sustainable urban growth depends on the intensive cooperation among individuals and public/private organizations. Any type of cooperation inevitably faces transaction costs because any transaction through markets or other institutions is not costless (Webster & Lai, 2003). There are three fundamental cooperation costs existing in urban development: exclusion cost, transaction cost, and organization cost, which are generally referred to as transaction costs in the literature (see Table 1). Note that all these costs occur in institutional contexts with the transaction cost emerging from market transactions that are subject to regulations, cultures, norms, and organizations (North, 1990). In the context of urban redevelopment, as shown in Figure 1, transaction costs occur at the interface between land use planning and regulations of public intervention and development clusters of market mechanisms, both of which could be broadly considered institutions (Alexander, 2001). In contrast to this notion of transaction costs, Hopkins (2001), in his logic of making plans, mentioned a different but similar concept concerned with the coordinative, cooperative, and interdependent characteristics in urban (re)development. He regarded urban development decisions as characterized by the *four I's*: interdependence, irreversibility, indivisibility, and imperfect foresight (see Table 2). The four I's, therefore, make the built environment a world full of complexity with uncertainties about the environment, related decisions, and values respectively requiring more information, more coordination, and clearer objectives (Friend & Hickling, 2005; Lai, 2018). In addition, the attributes of the four I's are more significant than the notion of transaction costs in some occasions in relation to externalities or collective goods. Because the cost of exclusion is extremely high or infeasible, or the nature of consuming the goods or services is non-rival, the circumstances of externalities or collective goods 'defeat the process of costless, rapid adjustment of decisions to equilibrium on which the arguments of neoclassical economics are based' (Hopkins, 2001, p. 25). Under these conditions, making plans is still desirable for urban (re)development.

Figure 1. The decision-making environment in urban redevelopment.

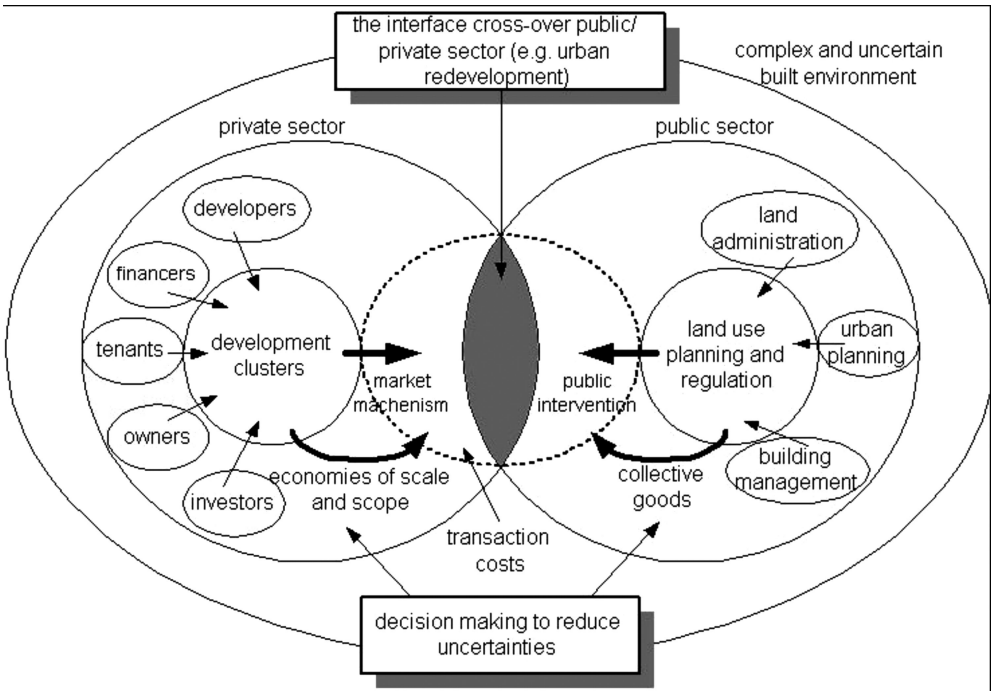


Table 1. The typology of cooperation costs.

Type of cooperation cost	Definition	Including cost of
Exclusion costs	Costs of protecting property from third party opportunism	• Physically demarcating resources • Reaching agreements • Policing agreements
Transaction costs	Costs of exchange and combination when markets coordinate cooperative acts	• Searching for exchange or combination partners • Creating contracts • Policing contracts • Third party costs • Compliance and clarification costs
Organization costs (firms)	Costs of exchange and combination when an organization such as a firm or club coordinates	• Gathering centralized information • Making rules and decisions about resource allocation • Policing rules and decisions
Organization costs (government)	Costs of creating and operating rules that govern the behaviours of individuals, markets, and organizations	• Gathering centralized information • Making rules and decisions about resource allocation • Policing rules and decisions

Source: Webster & Lai, 2003, p. 41.

Table 2. The four I's in urban development.

	Interdependence	Indivisibility	Irreversibility	Imperfect foresight
Definitions	Result of action A depends on action B.	Size of increment of action affects value of action.	No action available to return to previous state without cost.	More than one future is possible.
Examples	Value of land (or road) depends on road access.	Road linking two locations must be complete and of width sufficient for vehicles.	Road cannot be relocated or resized without costs.	Job could increase at various rates and at various locations.
Implications	Actions are not separable.	Continuous marginal adjustment is not sufficient or not possible.	History and dynamics matter.	Uncertainty cannot be eliminated.

Responses	Consider effects of combinations of actions.	Consider the sizes of changes.	Consider interdependent actions before taking action.	Consider uncertainty of actions, outcomes, and values.

Source: Hopkins, 2001, p. 26.

Just as planning can be applied to the decisions of private land development (see Schaeffer & Hopkins, 1987), so the transaction costs exist in the activities of political markets such as public land use planning (Alexander, 1992, 1994, 2001; Dawkins, 2000; Lai, 2005). Like the decision-making in the private sector, planning as intervention in the public sector helps reduce transaction costs because it provides a significant institutional environment of land and property markets through clearly designating and assigning the property rights in terms of land use plan and regulation (Alexander, 2001). Moreover, public decision-making also needs multilateral coordination or negotiation within single organizations or among organizations. Actually, coordination cross agencies or authorities also needs organizational transaction costs associated with collecting information, achieving consensus, consulting ideas, designating authorities among agencies, and making rules and enforcement (e.g. Table 1). Coordinative planning, therefore, can help achieve the interdependent cooperation or collective actions for public decisions in the inter-organizational structure. When the organizational structure becomes larger and more complicated, public agencies need more deliberate and formal institutional design to support planning activities in order to reduce transaction costs embedded in coordination.

The conceptual model for the empirical study in the next section is given in Figure 1. Given the complicated land use context and redevelopment process, urban redevelopment can be referred to as the interface across the public and private sectors. In this complex, uncertain, and self-organizinged arena, all public and private stakeholders have to make decisions to reduce transaction costs. On the one hand, the players (mainly developers) in the private sector tend to follow market mechanisms and preferably create development clusters to reduce the uncertainties from case-specific redevelopment units. On the other hand, the agencies within the public sector take redevelopment as collective goods and enforce public planning and regulations to clarify information and guidelines necessary for private development decisions. In other words, both the public and private sectors have to face the problem of transaction costs in the urban redevelopment process. No matter what amounts of transaction costs the public or private sector respectively might face within themselves, both of them also have to cooperate with each other in the redevelopment process. Therefore, a well-designed institution for urban redevelopment should consider and reduce the transaction costs faced by the public/private partnership, and its institutional structure presumably should motivate the interaction and interdependence of all actors across the public-private boundary. That is, planning and markets, as depicted earlier, may not conflict but possibly reinforce each other; they all happen in the urban development process that self-organizes itself (Lai, forthcoming). This would be the precondition for realizing the complex land development process like urban redevelopment in distressed areas. Either public planning or private development alone cannot effectively resolve the urban redevelopment issues in the complex urban environment. They must coevolve through coordination.

3. Policy context of urban redevelopment in Taipei City

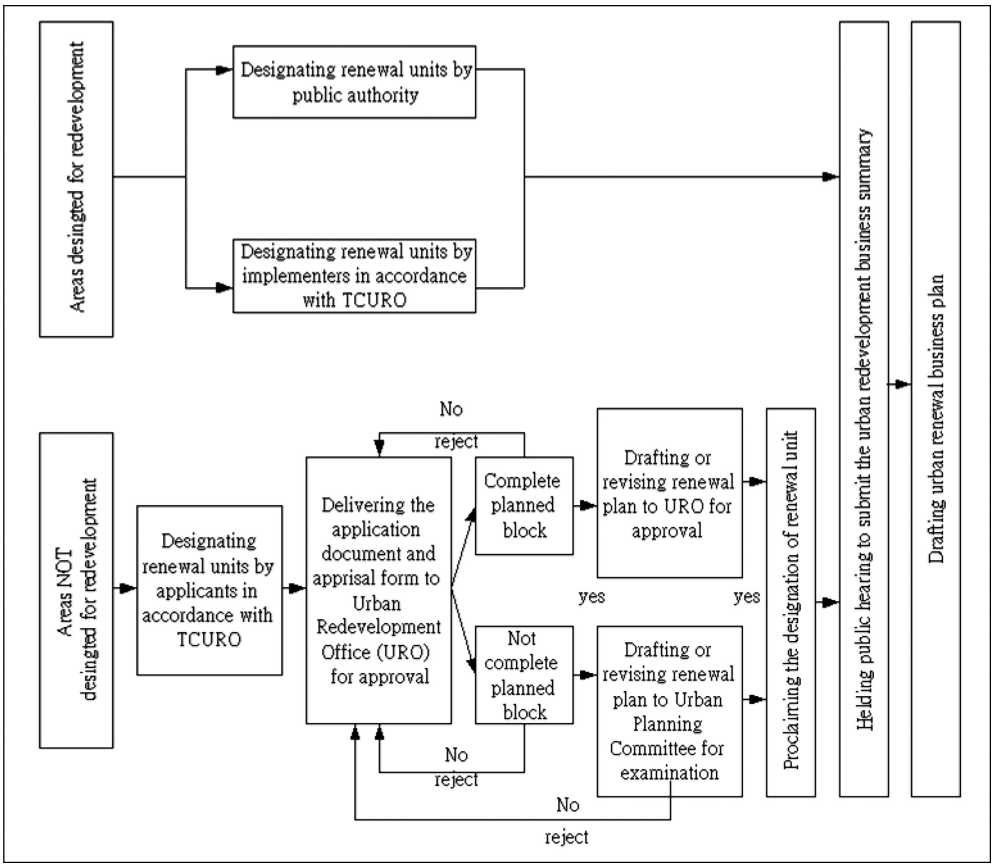
Urban redevelopment in Taiwan is a complicated practice on urban land reclamation. In the official procedure of urban redevelopment in Taiwan, urban redevelopment can be mainly subdivided into three phases: designating urban redevelopment areas, establishing urban redevelopment business plan, and implementing the plan. Among them, the first two phases can be taken as the phases of property exchange while the third can be viewed as the phase of property reallocation. Besides, each phase needs different degrees of participation from both the public and private stakeholders. Furthermore, among all cities in Taiwan, Taipei City is the largest one and the capital in Taiwan. It is also one of the major cities eager to enforce redevelopment due to the fast urbanization during the last 40 years. As a result, Taipei's urban redevelopment provides an interesting example for exploring and exemplifying the importance of the transaction cost approach depicted earlier. In the paper, we focus on the *designation of URAs (urban redevelopment areas)* and the effects of its main institutional incentives for encouraging private redevelopment businesses, *building bulk incentives*.

3.1 Statutory foundations of designating urban redevelopment areas in Taipei City

The principal statutory foundations of Taipei's urban redevelopment are '*Urban Renewal Act*' and '*Taipei City Urban Redevelopment Ordinances*'. In essence, the regulations of designating URAs are dictated from Article 5 to Article 8 in Urban Renewal Act. Briefly, there are two ways to designate URAs in Taipei City (Figure 2). One is '*direct designation by the public authority*' (Article 5), depending on the circumstances, which can be sub-divided into two modes: *prior designation* (Article 6) and *urgent designation* (Article 7). The other is '*voluntary designation by private applicants*' (Article 11). Also, the latter has to meet the requirements of Article 12 and 15 in Taipei City Urban Redevelopment Ordinances.[1] It is applied to the places which have not

been designated as URAs but are considered as necessary to be redeveloped by residents.

Figure 2. The procedure of designating urban redevelopment areas in Taipei City.



3.2 Incentives to encourage self-redevelopment by private sector

The authority responsible for urban redevelopment in Taipei is Urban Redevelopment Office (URO), a new agency subsidiary to the Department of Urban Development of Taipei City Government (DUDTCG) established in 2002. In order to exercise the application of renewal business from the private sector, the central government (mainly the Construction and Planning Agency, CPA) and the URO have enacted several incentives in Urban Renewal Act and Taipei City Urban Redevelopment Ordinances. In short, the main inducements motivating private participation in urban redevelopment are building bulk incentives, permissions for transfer of development rights (TDRs), tax abatement or exemption, and assistance or cost-sharing for constructing public facilities needed in implementing redevelopment business. Among them, the building bulk incentives are the most important means of all to encourage private self-redevelopment and are stipulated in Article 44 of Urban Renewal Act. Besides, the CPA enacted *Urban Renewal Regulations for Floor Area Bonus* in 1999 to implement the regulations of building bulk incentives in Article 44. Following the institutional design of inducement, the URO in Taipei City also enacted further definitions, regulations and assessment for various building bulk incentives in Taipei City Urban Redevelopment Ordinances (Article 18-21).

Generally speaking, building bulk incentives, also called floor area bonuses, are a kind of extra premium in addition to the given legal development rights on a renewal unit. Unlike TDRs, which emphasize the transfer of development rights from one site not suitable for high-rise development regarding disaster prevention, heritage preservation, or natural conservation to another site for more intensive development, building bulk incentives in URAs are the extra development rights only offered on the redevelopable unit. Their main aim is not prohibiting less but encouraging more development on a parcel of land in exchange of more participation. In accordance with Article 44 of Urban Renewal Act, there are five ways offering the floor area bonuses in URAs as follows:

- If the building bulk of a legal building before the implementation of the building bulk control is more than the building bulk prescribed by the law, the original building bulk is allowed.
- Due to the implementation of urban renewal, if most building's floor areas allocated are less than the average of the local residential floor area standard, additional building bulk can be allowed.
- For public facilities provided to the community after renewal, the floor area of the public facilities shall not be taken into account.
- Renewed areas that have priority or have been directly designated by the authority in accordance with the

regulations stipulated in Article 6 or 7 and that apply to implement the renewal plans within a certain time interval will be given additional building bulk. Other processes to promote the urban renewal business that the local authority sends to the central authority and were approved by the central authority will be given additional building bulk.

- The central authority should institute the regulations on additional building bulk mentioned in the preceding section.

4. Evaluation of incentives based on the TCT approach

4.1 Methodology

There are two research methods applied in this paper: survey and structured interviews, both being qualitative. Yin distinguishes five research strategies in social sciences: experiment, survey, archival analysis, history, and case study (Yin, 2003). Each research strategy addresses a different form of research questions through control of behavioural events and focus on contemporary events. For example, an experiment addresses the questions of how and why, requires control of behavioural events, and focuses on contemporary events. In contrast, a survey addresses the questions of who, what, where, how many, how much. It does not require control of behavioural events but focuses on contemporary events. Since the urban redevelopment phenomenon is complex, involving many players from the public and private sections, in this paper we adopted the survey strategies to carry out the research. In addition, to understand the issues in greater depth, structured interviews through focal group meetings were conducted to probe the observations made the local experts. In particular, we conducted a field survey of 167 URAs of the 12 administrative districts in Taipei together with three focal group meetings of 15, 18, and 20 members each from the private and public sectors.

The field survey of the 167 URAs was conducted through a questionnaire survey on the government officials of the 408 Li's (a Li is a subunit of each of the 12 administrative districts) and the associate site visits of the 167 URAs. There are 408 such government officials with 95 effective respondents (21% of the total number of questionnaires). The government officials were sampled because they were elected by citizens and knew well the local public affairs. The design of the questionnaire was to elicit the satisfactory comments and needs on the URAs located in the government official's jurisdiction. The site visits were conducted by the paid visitors (mainly the undergraduate students of the Department of Real Estate and Built Environment at National Taipei University) to take pictures and record building situations and land uses of the 167 URAs. Together with the records of the focal group meetings, all the data collected from the field survey were used for analyses of the urban redevelopment situations in Taipei as explained in the next section.

4.2 Results

According to Taipei's experience of implementing urban redevelopment, it is the main inducement that motivated private developers devote themselves to remaking old downtowns. In order to identify the areas requiring redevelopment, assess the standard of incentives, and abide by vital (re)construction policies, Taipei City has directly designated 215 URAs (except voluntary ones) over its 12 administrative districts since 2000. Whereas the huge development interests are possibly brought about by building bulk incentives, the actual renewal performance of URAs designated by the public authority hitherto is lower than that of voluntary ones. Observing the official statistics in Table 3, we can find the significant lag between the cases through the direct designation and voluntary application. Although the URAs designated by the local government occupy a large part in terms of number and area, their renewal performance, compared to voluntary ones, is unsatisfactory during the last 20 years. Figure 3 shows the 12 administrative districts of Taipei.

Figure 3. The twelve administrative districts of Taipei City (Source: https://maps-taipei.com/taipei-district-map).

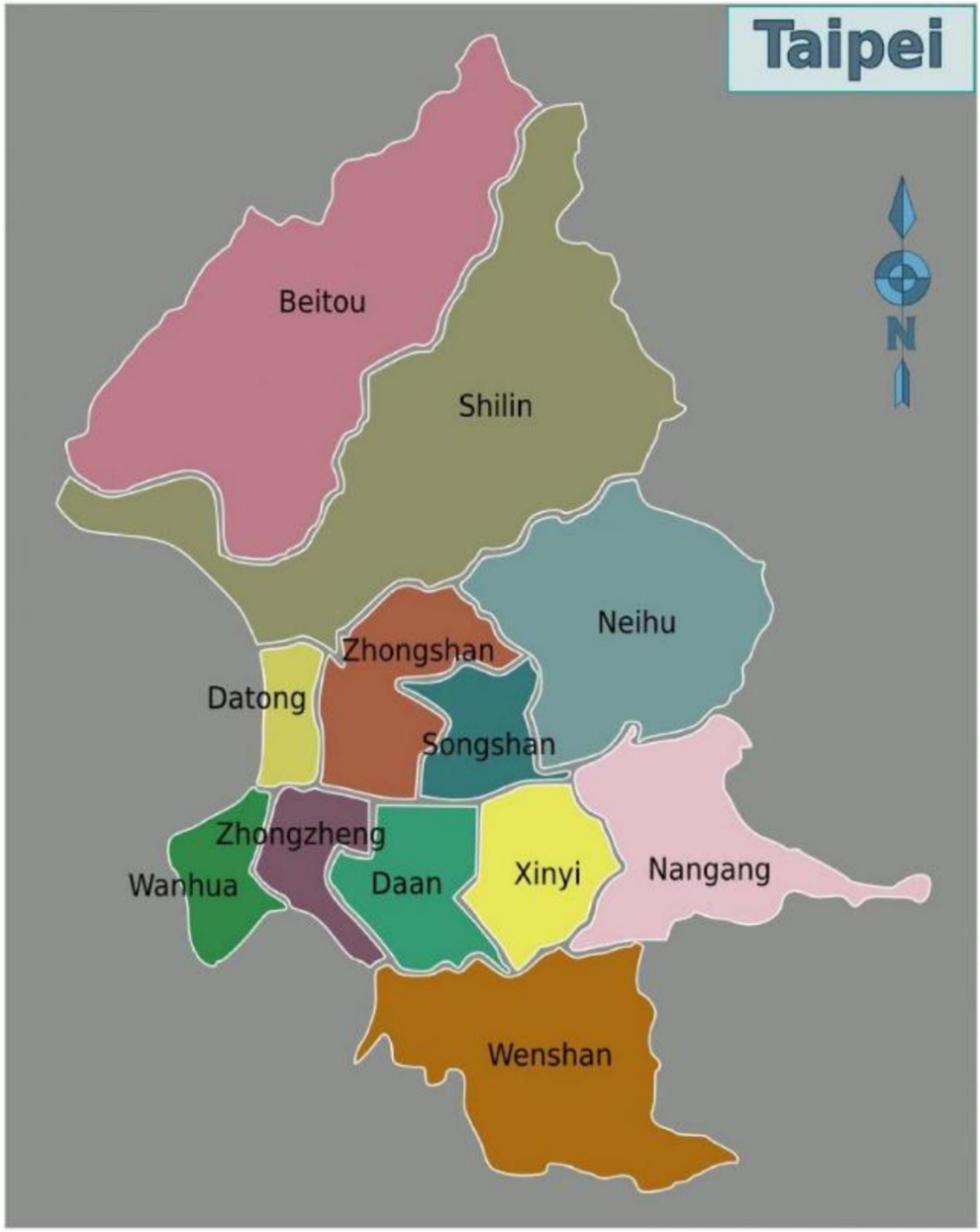


Table 3. The performance of redeveloping URAs in Taipei City (2000–2019).

	Direct designation by public authority	Voluntary designation by private applicants
The number of all URAs in Taipei City	152	1,087
The area of all URAs in Taipei City	708.7472 ha	266.9812 ha

Source: provided by URO (Statistic Date: December 2019).

Based on the field survey, structured interviews, and the transaction cost approach, we argue that there are at least three interrelated reasons for unsuccessful redevelopment in government-designated URAs: lack of a clear guideline of urban redevelopment plans, over-emphasis on the private redevelopment, and deficient packages for redevelopment means. They are commonly associated with inappropriate institutional design of urban redevelopment, which ignores the existence of transaction costs embedded in the complicated redevelopment process.

Firstly, Taipei's experience of urban redevelopment lacks clear and concrete redevelopment plans to draw, guide, and coordinate comprehensive redevelopment strategies. In the perspective of the transaction cost approach, public planning matters when private developers and other stakeholders face transaction cost impediments to achieving credible voluntary land use commitments. It is also the case that public planning can help reduce transaction costs in urban redevelopment projects because private land developers must negotiate with numerous landowners to assemble land for redevelopment. Direct government

intervention such as eminent domain and city-wide redevelopment plans can facilitate a relatively larger redevelopment project than would otherwise be possible through voluntary private transactions (Dawkins, 2000; O'Flaherty, 1994). On the other hand, there may be a number of renewal units initiated by different developers (implementers) in a redevelopment area. In order to consist with the projects from individual renewal units and coordinate the public and private sectors, the local government should initiate urban redevelopment plans to regulate the locality, timing, and priority for individual private redevelopment (Urban Regeneration R&D Foundation, 2003).

The phrase of 'urban redevelopment plan' is shown in Article 5 and Article 8 of Urban Renewal Act to guide the development and operation of URAs. However, Urban Renewal Act and its related laws do not elaborate the concrete implication and statutory position for urban redevelopment plans and this policy is not implemented in practice. Therefore, the responsibility of the URO is just to designate URAs, review the incentive application from private redevelopment projects, and partially improve local public environment. In other words,

> Lack of comprehensive redevelopment strategies, URO can just deal with the details such as individual designation of URAs, property rights investigation, operation of rights transformation, and building bulk incentive assessment. (Interview with Prof. Xue-Tao Chian at National Taipei University)

There are some disadvantages for both the public and private sectors due to the lack of a redevelopment plan. For the URO, the uncertainty of decision-making and costs of collecting information are too high to handle the current situation in URAs and coordinate among stakeholders. For private developers, they think that their investments in URAs will be a risky business because the property market lacks credible information about the direction and priority for redevelopment. Both the public and private investment decisions thus have to incur extra transaction costs to practice redevelopment projects. Therefore, the cost barrier attributing to information asymmetry will impede private redevelopment in the government-designated URAs.

Secondly, *the institutional design of Taipei's urban redevelopment over-emphasizes the incentives to encourage private redevelopment and under-estimates the necessity of public planning/intervention to strengthen the incentive effectiveness*. Generally speaking, urban redevelopment is usually associated with the activities of land assembly in the initial renewal phase. There are three major redevelopment modes for land assembly: predominant, assigned, and incentive modes, depending on the extent that the public authority intervenes in the land assembly phase. In Taipei, the institutional design of urban redevelopment tends toward the incentive mode stressing that the local government only designs incentive and supervision mechanisms to induce and encourage the private sector to actively engage in the redevelopment market in the process from land assembly, through development, and to allocation and sale (see Bian, 2003). That is, the existence of 'active' developers/implementers in the redevelopment market is the precondition for the incentive mode of redevelopment.

However, land assembly is a difficult task to do for implementers alone in Taipei because of complexity of property rights. In Taiwan, the traditional land use pattern in old downtowns tends to divide a complete parcel of land into several fragmentary properties. Each property might often set up several rights such as ownership, easement, superficies, and leasehold or mortgage. In addition, the ownership on a property is usually further divided into several having-shares (which is called *chi-fen* in Chinese) owned by different individuals. The circumstances of sophisticated property right registration system make the land assembly and collection more difficult for private implementers. They have to spend a long time to negotiate with landowners and other stakeholders, achieve the agreement of residents, submit application documents for approval, and deal with complex property rights. Although the building bulk incentives provide practitioners with affluent inducement for extra floor areas after redevelopment, this is nothing but an *ex post facto* bonus. It is especially the case in the URAs designated by the local government. In these official-designated URAs, especially the ones for relocated apartment (*zheng-jian-zhu-zhai*) or distressed community renovation, the ownership on land or building is usually fragmentary and the site area is small because the local residents are mainly disadvantaged groups. These preconditions will increase the transaction costs for private developers through the incentive mode of redevelopment.

For private redevelopment businesses, considering that the benefits brought about by building bulk incentives might not cover the extra transaction costs and market risks owing to deferring the time for preparation, developers and other actors in the property industry are not willing to spontaneously form possible development clusters into official-designated URAs. In our interview with some renewal implementers, an interviewee thought that:

> Most of official-designated URAs face the problem of complex property rights. Developers usually have deficient time and human resources to integrate owner's opinions and sites. Besides, if the communication with landowners is broken up, we doubt that whether we have to keep on investing in the project. As for the timing to assemble sites, we also have no idea about how long we will fight against the trouble … although the building bulk incentives do provide us with a big pie for business, we cannot enjoy it as long as we cannot solve the complex problem. (Interview with a commissioner in Hua-Ku Construction Co. Ltd.)

Thirdly, last but not the least, *the means implementing redevelopment lacks various packages depending on different conditions in URAs*. According to the transaction cost approach, asset specificity is one of the main causes resulting in transaction costs. Because each good or service has more or less its own idiosyncrasy, consumers need to pay additional costs to collect information about it. However, collecting complete information is impossible in the real world (Barzel, 1997). Decision makers can only determine what to do because of bounded rationality and stay flexible to adjust their decisions in time in response to the dynamic environment (Alexander, 1992). The same concept can also be applied in the urban redevelopment. As depicted earlier, the locational attributes of each URA are different, which makes redeveloping these areas a case-specific task. Owing to the idiosyncrasy, the incentive mode of redevelopment may not be suitable for all cases. For example, if the share of public land is high or the rights structure is simple in an URA, it will be possible to regenerate the area through market mechanisms. Otherwise, the local government should take compulsory measures to directly resolve the complex circumstances, reminiscent of collective goods that prompts pubic intervention.

According to the regulation of Urban Renewal Act, *rights transformation* is the main tool to redevelop URAs. It originates from Japan and refers to

> the land owners, legal building owners, ownership of other legal rights as the implementers of reconstruction area within the renewal unit, who provide lands, buildings, and ownership of other legal rights or funds, participating or implementing the urban renewal businesses, and who, after the implementation of the urban renewal business plans is completed, determine the distribution of the renewal buildings and the land partition owned or its royalties according to the rights values before the renewal and the proportion of the funds are provided. (Article 3)

Although not only the private developers but also the local government can be the implementer as defined in the Article 3 of Urban Renewal Act, most cases are private redevelopments and the nature of rights transformation is market-oriented. Traditional measures for urban land development such as land expropriation, zone expropriation, urban land consolidation, and developer-landowner joint construction can also be used in the redevelopment process, but, in order to exercise market mechanisms and improve self-redevelopment by the private sector, the local government prefers rights transformation to other measures applied in the redevelopment process because of ease of practice.

However, the market-oriented measure and the incentive mode confront challenges in some cases such as relocated apartment renovation, urgent reconstruction after disasters, or renewal in the area with complex and fragmentary rights structures. In these areas, not only physical decay but also socio-economic problems matter and need urgent improvement. These are the typical collective goods cases beyond profit thinking by private developers. Rights transformation is inevitably concerned with negotiation for land assembly and communication among stakeholders, so the private implementer may not handle the transaction costs effectively in time, consensus, and information, which is the same as the second argument. Therefore, redevelopment is unlikely to take place in URAs even if the incentives are attractive. Facing these circumstances, some measures based more on public authority, such as zone expropriation and urban land consolidation, may be more appropriate for redeveloping these specific sites. Regarding the existence of transaction costs in urban redevelopment, the local government cannot do anything but hope the operation of market mechanisms work. Urban redevelopment is a significant example showing that the public and private sectors must cooperate with each other to reduce transaction costs. That government is laisser-faire is not necessarily equivalent to a free market. Planning still matters.

5. Conclusions

The institutional design of Taipei's urban redevelopment over-emphasizes the market-oriented measure and thus the incentive mode. Consequently, the local government plays a passive role in enforcing redevelopment strategies in Taipei City. The URO is only in charge of the designation of URAs and approval of incentives. Although building bulk incentives can offer potential benefits for private developers, lack of active strategies of the URO cannot effectively reduce the transaction costs and uncertainties for private redevelopment projects. Urban redevelopment, however, is an interface across the public and private sectors. It also faces transaction costs due to the characteristics of complex rights structures, interest groups, locational conditions, and asymmetric information. These attributes result in the poor redevelopment performance for government-designated URAs in Taipei City. It is worth noting that this poor performance might also be caused by inefficient coordination of public-private partnership (PPP).

The implementation of renewal businesses cannot rely solely on the private sector alone because of the existence of great transaction costs in the redevelopment process. The experience of Taipei City shows how transaction costs affect the success or failure of building bulk incentives in encouraging private redevelopment and how the local government can tackle the problem through public planning. In order to effectively implement redevelopment policies, the institutional design of urban redevelopment should be reviewed and investigated in the perspectives of the transaction cost approach. One of the theoretical contributions of the present paper would be to argue that planning, either as a collective good of public intervention or as

information collection against uncertainties, should play an important role in urban redevelopment. It is possible for the local government to make plans in order to coordinate the decisions made by the private sector. In other words, rather than viewing the individual urban redevelopment projects as independent decisions, the Taipei city government should coordinate these different projects in plans in order to deal with dynamics failure and enhance the effectiveness of the urban redevelopment projects in relation to urban development (Hopkins, 2014). Therefore, we strongly argue that in order for the urban redevelopment institution in Taipei to be effective, the city government must make strategic plans city-wide to reduce transaction costs for the development of all the URAs. Similar attempts have been made elsewhere (Inwood & Alderman, 2020; Zhuang, Qian, Visscher, & Elsinga, 2020). These plans must be complemented by other measures, including appropriate redevelopment policies to address review fairness and redevelopment regulations to enhance application stability. The caveat is, however, that urban redevelopment is such a complicated matter that, in addition to planning, administration, regulations, and governance for coordinating decisions must all be involved in order to take effective actions to yield good outcomes (Lai, 2018).

Note

1. See the following website for detail: http://law.moj.gov.tw/Eng/Fnews/FnewsContent.asp?msgid=3012&msgType=en

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