

INSTITUTIONAL ANALYSIS OF MARKET-LED RESIDENTIAL DEVELOPMENT IN SHENZHEN: A TRANSACTION COST PERSPECTIVE

XIANG LI, HAO WU AND SUN SHENG HAN

Faculty of Architecture, Building and Planning, University of Melbourne

ABSTRACT

The acute land scarcity in built-up areas and the strict regulations of land conversion on the urban fringe in the major cities in China highlight the importance of urban redevelopment for continuing urban growth. In Shenzhen, a novel mechanism was established to motivate the market sector and further facilitate the implementation of residential redevelopment. The local government's role is changed to focus only on policy-making and project approval whilst developers and the residents directly negotiate for compensation plan and transfer of land use. Public participation of the affected residents is specified to share the interest of the redevelopment project. However, the institutional change led to unexpectedly low efficiency for the dilapidated residential redevelopment. Among the eight experimental residential redevelopment projects, only one succeeds while other seven are at a standstill of different stages. This paper uses the transaction cost framework to trace the relevant transactions and identify the transaction-cost generating factors in the residential redevelopment process. The deficient efforts of property rights confirmation, the low participating threshold of the developer, the insufficient participation of residents in the planning-making process, and the absence of government intervention are responsible for the poor institutional performance. These findings contribute to the establishment of alternative institutional arrangements to facilitate urban redevelopment in China.

Keywords: transaction cost, market failure, institutional obstacles, process efficiency, residential redevelopment, Shenzhen.

Email contact: lix10@student.unimelb.edu.au, sshan@unimelb.edu.au, haow@unimelb.edu.au

1. INTRODUCTION

A significant trend in China's urban development is the increasing role that market has played in development decision-making. The role of the state in planning and plan implementation has been changed from dictating to facilitating and now mainly regulating (Han 2000; Han and Wang 2003; Li, Han and Wu 2018). Today, it is widely observed that governments at different levels of the administrative hierarchy are keen to reduce direct intervention by allowing negotiation between the relevant parties according to market conditions (Li & Liu, 2017; Tian & Yao, 2018), so the concerns about social resistance resulting from inadequate or total absence of consideration of residents' interest and participation can be addressed (Fang & Zhang, 2003; He & Wu, 2009; Zhai & Ng, 2013; Zhang, Chen, & Tochen, 2016). On the other hand, China's private sector and other market players are also active and keen to form a coalition with local governments in order to seek profit from land value increment (He & Wu, 2007; Yang & Chang, 2007). Shenzhen, a pioneer city in China's economic reform, has continued its effort in policy innovation for an improved process efficiency in its land market by applying market mechanism; however, the outcome so far has been poor (Li, Han, & Wu, 2018). What have caused the market failure?

Recent literature offers ample evidences that market-oriented reform contributes to the implementation of urban redevelopment. Schoon (2014) argues that the novel policy structure creates flexibility to urban redevelopment accomplishment, by permitting informal actions which serve policy objectives. Lin (2015) believes that urban consolidation allows interest being shared by current land users in Guangzhou, which increases process efficiency and land

use intensity. Li and Liu (2017) show that the institutional reform in Guangzhou motivates formation of redevelopment regime among stakeholders and provides possible solutions to institutional obstacles for urban redevelopment. Several studies shed light on the limitation of the market-oriented institutional reform. For example, Tian and Yao (2018) argue that urban consolidation policy fails to prompt residential redevelopment due to the high transaction cost to achieve consensus among involved stakeholders in Guangzhou. Li, Han & Wu (2018) reveal that governance deficiency contributes to poor project outcome in residential redevelopment. However, little is known about what the institutional obstacles in the market-led redevelopment are in Chinese cities.

This paper adopts a transaction cost economics approach to market-oriented urban redevelopment to identify key institutional obstacles relate to market failure and process inefficiency. The paper is organized as follows: section 2 analyses institutional context of market-oriented redevelopment. Section 3 develops a transaction cost analytic framework to evaluate institutional obstacles of market failure based on the review of critical literature on transaction costs and institutions. Section 4 introduces the cases context and methodology. Institutional arrangement and relevant transaction cost are analysed in section 5. Section 6 identifies the institutional obstacles to market-led residential redevelopment and discusses alternative arrangements to improve market efficiency. Section 7 concludes.

2. MARKET-DRIVEN URBAN REDEVELOPMENT IN CHINA

2.1. Efficiency-Driven Redevelopment After Marketization Reform

China's economic reform since the late 1980s has incentivised local governments to promote efficiency-oriented urban redevelopment, where vertical decentralization and horizontal competition turned local governments entrepreneurial (Zhu, 2004). Although substantial move was made towards the political and economic importance of individual preference, the definition of property rights lacked clarity and effectiveness (Abramson, 2011). Thus, Urban redevelopment became process efficiency driven where residents were obligated to enter a contract with the developer and comply with state demolition and relocation decisions (He & Wu, 2009; Zhang, 2008; Zhu, 2004). Neglecting property rights protection, efficiency-driven mechanism put property owners' interests in jeopardy (Fang & Zhang, 2003; He & Wu, 2009; Yang & Chang, 2007).

2.2. Institutionalization of Property Rights and Decreased Process Efficiency

From 2004, the central government commenced to launch the property rights reform to reduce the possibility of political influence on privatised property rights, especially in urban (re)development (Po, 2011). In 2004, the amendment to the 1982 Constitution conceded the right of the affected owners to obtain fair compensation if their properties were expropriated (He & Wu, 2009). In 2007, the national government released the *Property Right Law* to formally guarantee the 'inviolability' of private property rights (National People's Congress, 2007). The issuance of property right law not only legalises rights and obligations regarding private property, but also conceptualized the cultural and moral notion that people have the right to oppose transaction they perceive as unfair (Abramson, 2011). The concept of public interest remains ambiguous and the law did not provide clear procedures for property right enforcement (Li & Li, 2011; Zhai & Ng, 2013; Zhang et al., 2016).

In 2011, the State Council promulgated a novel approach to clearly conceptualise public interest and stipulate detailed procedure of housing expropriation (The State Council, 2011). The affected residents were authorised negotiating power whilst the state's role focused on protecting property right in the urban redevelopment process (Ye, 2011, 2014). The institutionalization of property rights equally authorized residents to trade property under

market transaction. Given the ambiguity of property rights and the increasing diversity of stakeholder interests, the difficulty of land assembly in China has escalated (Li, Han & Wu, 2018; He, 2015; Po, 2011).

2.3. Urban Consolidation Policy and Failure of Residential Redevelopment

In 2009, the state initiated a policy reform, known as San Jiu Gai Zao, in the Guangdong province. Aiming for a fairer redistribution between the state and residents, this policy significantly empowered residents with due regard to property rights protection (Li & Liu, 2017; Tian & Yao, 2018). In the same year, in line with this provincial policy, Shenzhen promulgated its ‘market approach’ to encourage redevelopment of old towns, dilapidated residential areas, old industrial districts, and urban villages (Shenzhen Municipal Government, 2009). Local government’s role changed to a “night watchman role” to reduce intervention, whilst land use transfer is to be conducted between developers and property owners by direct negotiation (Li, Han, and Wu, 2018). With fixed proportion interests handing over to the government, land value increment was to be shared between the contracting parties (Shenzhen Municipal Government, 2012)¹. This novel approach was intended to deploy greater market force to accomplish urban redevelopment.

Li, Han & Wu. (2018) show that the market approach did not achieve the process efficiency for residential redevelopment intended in Shenzhen. With little government support, negotiations between developers and property owners in redevelopment projects have led to severe delay or failure (Ma, 2013; Zhou, 2016; Li, Han and Wu. 2018). Market failure in the urban redevelopment sector leads to theoretical concern to identify its institutional obstacles from transaction cost perspective.

3. TRANSACTION COST AND MARKET FAILURE

3.1. Transaction Cost Economics and the Analyse of Market Failure

Market failure in the sense of resource allocation refers to the failure of a more or less idealised system or price mechanism to sustain “desirable” activities or to estop “undesirable” activities (Bator, 1958, p.351). In land development, it describes market’s inability to effect transaction between land purchasers and sellers (De Neufville, 1981; Zhu, 2004). Market failure never occurred in old classical economic theory where transaction is costless, frictionless and effortless. Given the existence of poor market operation, the Pigouvian welfare economics admits market inefficiency to properly allocate resources. Bator (1958) studies market failure strictly from the viewpoint of Pareto efficiency and concludes externalities as the main cause. The study relied on ideal conditions that market operates in a way that no one is better off without hurting another’s welfare. Coase (1960) counters the Pigouvian assumption that there is no cost to carry out market transaction and argues that means to decrease transaction cost will reduce market deficiency. His positions transaction cost a critical role for the analysis of market failure.

The transaction cost approach contributes to the evaluation of efficiency of institutions and identification of institutional obstacles of market failure (North, 1990; Williamson, 1985). Arrow (1969) is the first to correlate market failure with transaction cost. Given negative externality as special case of market failure, he regards transaction cost as the general source of market failure. The analysis of market failure is “better to consider a broader category, that of transaction costs, which in general impede and in particular cases completely block the formation of markets” (Arrow, 1969, p.501). Since its inception, the transaction cost

¹ In any redevelopment project, the local government will obtain 15% of the redeveloped land for the construction of infrastructure and public facilities.

approach paid attention to the relationship among institutions, costs of exchange, organizations and their relationships (Alexander, 1992; North, 1992). Institutional arrangements affect transaction costs by structuring the interactions and economic choices of actors in the exchange of property rights (Wallis & North, 1986). Institutions which are able to lower the costs of exchange and allow for transactions over space and time are considered generating higher process efficiency, and vice versa (North, 1990). Institutional obstacle occurs in inefficient voluntary allocation of goods and services, escalates transaction costs and decreases process efficiency. Thus, perfect process efficiency refers to a process with zero transaction costs.

Expanded from market to the public realm, transaction cost approach was developed to explain the costs of coping with institutional obstacles in governance (Alexander, 2001a). Scholars have demonstrated the effectiveness of transaction cost framework on process efficiency of urban development. Alexander (1992) extended the transaction cost approach from the private organizations in economic transactions to government organizations in the urban planning realm. He then developed a transaction cost framework to investigate transaction costs in land use planning and development control. Cho (2011) adopted this framework to analyse housing redevelopment process in Korea. Buitelaar (2004) combines user rights regimes and transaction cost approach to identify the land development process efficiency in the Netherlands. Lai, Chan, and Choy (2017) examined transaction costs in the urban village redevelopment process in Shenzhen. These studies ignore linkage of market mechanism in land development and transaction cost theory, failing to focus on the institutional obstacles of market failure in market approach to urban redevelopment. This research intends to fill this gap by applying transaction cost perspective to market failure in urban redevelopment.

3.2. Identifying Transactions Cost Factors

Transaction cost perspective treats transaction the basic unit of analysis (Williamson, 1985). Transaction occurs between two actors for such diverse activities as: (1) procurement or transformation of information about the values of resources, (2) goals and demands of the counterpart; (3) procurement of services, ideas and intellectual capital; (4) basic negotiation to exchange information; distribution of goods and services (Alexander, 2001b; Coase, 1960). Transaction cost concept has been criticised for its difficulty to measure due to the cost of each transaction cost being numerous or ill-specified (Ball, 1998; Poulton, 1997). To identify, Buitelaar (2004) diverges *production costs* from transaction costs and further specified transaction costs as *information cost* being the cost of acquiring information and institutional cost being the cost to create and use institutions to reduce uncertainty. Buitelaar's notion of transaction cost has limited heuristic inclusion for micro analysis of market failure as the cost of creating institutions remains ambiguous. It is also arguable that production cost is based on costly transactions.

This paper dissects transaction costs from two perspectives: *information costs* and *coordination costs*. It considers information costs the expenditures required for acquiring information about values of resources, values/goals of the other participants and to process information such as establishing transaction terms and investigating for profitability. It considers coordination costs the costs to procure products, services, intellectual or other capital, ideas and human resources other actors possess. The two are intended to cover micro-level transaction operation and indicate the efforts to cooperate or negotiate in market settings. The form the human effort to draw contracts to regulate human actions to delineate

property rights and enforce/monitor exchange. This attempt contributes to transaction cost measurement for market efficiency².

The social arrangements which presented or led to hazard factors that raise transaction costs and reduce process efficiency are defined institutional obstacles. The relevant literature suggests directly relevant factors such as uncertainty, opportunism, interdependence, delay, and heterogeneous interests (Alexander, 2001a, 2001b; Buitelaar, 2004; Cho, 2011; Coase, 1959, 1960; Dawkins, 2000; Imperial, 1999; Williamson, 1985).

Uncertainty represents fundamental lack of knowledge in regard to information on exchange, information asymmetric between actors, and non-observability of actors' preference. Incomplete information escalates coordination cost and prolong transaction process. Asymmetric information between different relevant actors causes the informed actors who have superior knowledge to take speculative behaviour. The non-observability of actor action leads to transparency problem so to increase verification and monitoring cost. It increases the difficulty to create incentive schemes (Dixit, 1998).

Opportunism is the self-interestedness of economic actors who take interest-seeking behaviour with deceit and absence of moral restraints (Williamson, 1993). It involves deliberately withholding or distorting important information, shirking e.g. doing less work than agreed, or failing to fulfil formal or informal promises and obligations. Opportunistic behaviour occurs in trading activities especially where power asymmetry exists and/or where enforcement is lacking (Imperial, 1999). It raises the supervision cost of transaction process and lowers exchange efficiency. A property view argues that specific assets open the door to opportunism (Foss and Klein, 2010). Asset specificity in transaction cost economics describes the interdependence where the value of an asset declines or vanishes as the assets are redeployed to other transactions (Alexander, 2001b; Williamson, 1985). It refers to the interdependent effect to reduce asset owner's ability to exercise exit option and opportunistic behaviour (Hirschman, 1970). Besides organization and inter-organisation coordination, horizontal and vertical integration may lead to escalate transaction costs (Williamson, 1981).

Transaction cost is high when exchange is not timely performed compared to the costless market transaction (Masten, Meehan, & Snyder, 1991). Delay can lead to social hazards such as loss, interdependency and opportunism while timely and independent transactions incur low transaction cost (Cho, 2011). The increasing number of stakeholders escalates the possibility of heterogeneous interests and the cost to reach consent increases hold-up cost (Buitelaar, 2004; Imperial, 1999). The institutional analysis of urban redevelopment conducts in this research through illumination of transactions in terms of formal institutional arrangement and transaction costs in terms of related hazards. What follows is the identification of transaction cost to reduce process efficiency.

4. DILAPIDATED HOUSING REDEVELOPMENT IN SHENZHEN

In 2010, the Shenzhen municipal government designated eight dilapidated residential sites located in its inner districts to trial market-driven redevelopment (see figure 1). These residential sites were developed in the 1980-1990s. Their sizes range from 4.4 to 12.4 ha, composed 7-storey structure with no elevator, and households between 184 to 1,341. Due to poor finance, management and technology conditions, the buildings were constructed with sea sand and incompetent steers. The site and units had inferior design and facilities, which led to severe obsolescence in the next three decades. The sites are however well positioned typically located adjacent to public transport and social infrastructure such as hospital and

² Refers to real estate market efficiency literature e.g. Case and Shiller (1991), Evans (2005).

schools. Contradicting to poor living environment, potential redevelopment value of the sites is considered high. Out of the eight cases, only Hatang had achieved 100% land assembly by owner-developer agreement and is currently under construction. All other sites have struggled to assemble the sites due to strong resistance of a small group of unit owners³. The market approach turned out to be extremely time-consuming and extraordinarily low by process efficiency.

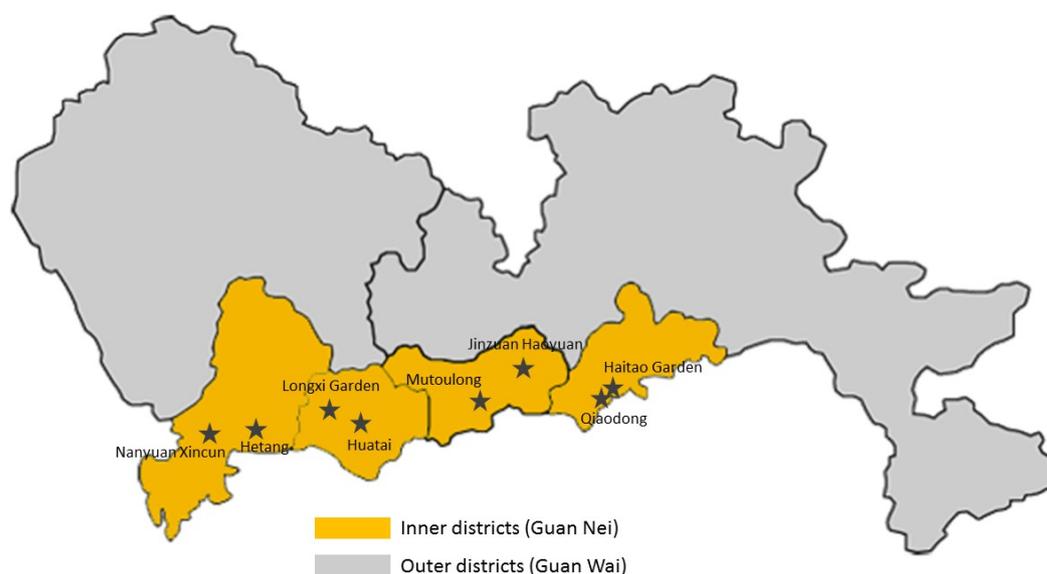


Figure 1. Location of the eight experimental cases in Shenzhen

This paper focuses on eight residential redevelopment projects in Shenzhen during the policy period. Data were collected in two stages between 2016-2017. In the first stage, we conducted twelve semi-structured interviews with municipal and district urban planning officials. We carried out site observation, review of relevant legislation, regulations, policies and development plans. In the second stage, we collected case level data. The interviewees comprise officials from the Urban Redevelopment Authority, real estate managers, professional urban planner, lawyer. Four cooperative and six non-cooperative property owners were also identified for the interview. The interview data is supplemented with data from resident's online forum and public media.

³ The situation at the time of writing i.e. May 2018.

Table 1. Information of the eight redevelopment cases in Shenzhen (Jan. 2018)

Name	Area (m ²)	Initially built	Number of households	Agreement process
Nanyuan Xincun	124,800	1988	1310	90%
Mutoulong	100,000	1983	1341	99%
Longxi Garden	61,455.3	1996	460	78%
Huatai	46,367.9	1989	764	above 80%
Qiaodong	46,300	1991	480	95%
Haitao Garden	44,300	1989	1260	90%
Jinzuan Haoyuan	33,447	1989	868	97.70%
Hetang	18,130	1993	184	100%*

(Data source: fieldwork and newspaper reports. * accomplished in Dec. 2016)

5 TRANSACTION COST IN MARKET-LED RESIDENTIAL REDEVELOPMENT

5.1. Transactions and Redevelopment Stages

We define the market-led residential redevelopment process as an array of transactions in five stages: (1) confirmation of the developer; (2) project approval; (3) agenda setting; (4) property right acquisition and assembly, and (5) ownership transfer. Relevant hazards relating to the transactions are identified under each of the stages.

In the first stage, the developer is required to obtain consent from a minimum two-thirds of the property owners with ownership certificates and consent letters (the Shenzhen Municipal Government, 2009). Critical transactions emerge to get existing property owners' support for redevelopment, the developer communicates with residents to understand their expectations and demands to establish appropriate compensation terms. The local government passes on to developers one of the costliest functions of price discovery for resident relocation and compensation conditions.

On completion of the first stage, the developer submits application for project approval to the local government. Upon project approval, he becomes a candidate of redevelopment. Transactions are information exchanges between the local government and developers to confirm the property ownership⁴ and unit quality. The regulation clearly states only residential areas with valid and clear property rights are allowed to proceed to redevelopment planning stage; residence conditions should also be verified as a shortage of necessary infrastructure and public facilities; harsh living environment or major security breach; or dysfunctional land use.

In the stage of agenda setting, the developer applies for approval of their redevelopment plan including the supply of land for public infrastructures such as roads, parks, open space and parking and potential floor area ratio (FAR) to mitigate negative effect of high-density development. The concerns of public and private interest in land supply involve developer-

⁴ In China, property owners possess the de facto property rights of their apartment for seventy years in spite of the state-owned land ownership.

government transactions. The developer shares information with and procures the professional services from professional consultants to formulate the residential redevelopment plan. The local government assesses and approves their redevelopment proposal including the FAR, land contribution and the requirement of public facilities (Shenzhen Municipal Government, 2012).

For property right acquisition and assembly, the developer obtains consent from affected property owners to assemble the property ownership (Shenzhen Municipal Government, 2012). On completion of the acquisition and assembly, the developer pays a land use fee and taxes to the local government to secure the project executor role. Important transactions emerge in this stage. The developer sets a contract with the affected property owners to mutually agree compensation as well as other contractual terms and conditions.

After successful land assembly, in the ownership transfer stage, the developer starts demolition and redevelopment, jointly with government infrastructure and public facility provision (Shenzhen Municipal Government, 2012). Transactions occur in this redevelopment process where the developer procures services from a group of building professionals. On completion of project, one transaction occurs between the developer and the affected residents: the distribution of the redeveloped properties to the original property owners. During this stage, the developer receives profit and defrays his cost through the sale of commodity units.

5.2. Transaction Cost Related Hazards

Confirmation of the Developer

The fierce competition of developers gives rise to *asset specificity* and *opportunistic behaviour*. Developers engage in a residential area to vie for the redevelopment right by devoting immense efforts and private investment such as publicity, price incentive and compensation⁵, which significantly raises asset specificity and opportunistic behaviour. In the Nanyuan Xincun case, the developer failed to achieve two-thirds of resident consent yet was reluctant to quit, so they forged documents to be granted as the redevelopment candidate. Two year later, for residents alleged fraudulent behaviour, the government cancelled the developer's right (Ma, 2013). The opportunistic behaviour and the ultimate replacement of the developer's project role destroyed trust, unfolded uncertainty and raised coordination costs of the following stages.

Also, is developer competency related to transaction cost. In Jinzuan Haoyuan, a newly established developer won the redevelopment right based on massive investment in the support solicitation process. As the developer was running a cloth manufacture business, it lacks ample expertise and financial resources to manage the project (Interview: uncooperative residents in Jinzuan Haoyuan, 2016-12-21). Although it promised to pay rental subsidy to residents who consented to relocate until the redevelopment is completed, after five years, the developer accumulated substantial debt and cannot proceed the redevelopment. Although a more capable developer took over the project, the exit and replacement led to high project risk hence high hold-up cost.

Project Approval

Ambiguity of property ownership sets obstacles for property transactions and brought redevelopment failure. In the 1990s, some households in Haitao Garden, a housing estate originally built for expatriates, purchased their apartments using foreigner identity (Southern

⁵ This also includes 'corruption' so defined in regulatory economics perspective.

Metropolis Daily, 2014). Without legitimate transfer, the property ownership remains ‘foreign’. According to regulations, these *de facto* owners are not entitled for compensation unless their ownership is certified. For decades, they lost contact with the original buyers, so it is highly costly to certify property ownership. This group becomes reluctant to support the redevelopment and refuse to negotiate with the developer. The lack of investigation on the residence condition also adds to incomplete information and subsequent non-observability of resident behaviour. Longxi Garden, built in 1996, is the latest redeveloped housing estate. Due to qualified building materials and appropriate maintenance, the local community retains acceptable quality of lives. Over 20% of property owners refuse to support the redevelopment because they think it may create inconvenience and drop-back to their daily life (Feng, 2017).

Agenda Setting

High-density redevelopment planning also raises transaction cost. The developer and the planning consultant may do a ‘under-the-table trade’ payment in making of detailed development plan (Interview of planning consultant, 2016-12-22). The planning consultant firm will receive rising fees if it is able to design higher FAR which could be approved by planning authority, because developer may set aside more apartment units for sale within high-density project. However, high-density may trigger local resistance for negative social effect so to prolong negotiation. Given potential profit margin in the emerging high-density community, some residents raise speculation to share more land value increment (Interview: project manager, 2017-01-08). The behaviour becomes a ‘lock-in dilemma’ in the negotiation, adding to the hold-up cost.

The strong government-developer link also imposes redevelopment cost. The developer admitted banqueting governmental officials to develop a close relationship to deal with complex administrative management (Interview: project manager, 2017-01-08). The officials, in return, came to persuade the non-cooperative residents to consent. This administrative action, unfortunately, is considered *corruption*⁶ by the local residents, worsen their distrust of the developer and the local government (Interview: uncooperative residents, 2016-12-07).

Property Right Acquisition and Assembly

The developer and owner residents can easily develop a lock-in interdependent relationship at the stage of land assembly. In Mutoulong, the developer arranged loan to pay for the residents’ temporary accommodation until their return upon completion of the redevelopment. The substantial cost in the transaction-specific project increased its asset specificity, incentivise opportunistic behaviour. Upon the majority support, the developer took fierce action to force the uncooperative households to relocate, which broke their trust and escalated the coordination cost (Interview: uncooperative residents, 2016-12-07). Due to this significant sunk cost the developer bears, some late cooperative residents strategically bargain for higher compensation using ‘double-sided contract’. Efficient market transaction fails under this situation.

The lack of effective relocation agreement that composes of specific location and building details escalates the transaction cost. In all eight cases, not a developer was able to offer any detailed enforceable plan with uncooperative residents. Without the full consent, it is impossible for the developer to confirm location and other relocation specifics (Interview: project manager, 2017-01-08). The policy specifies necessity of a detailed plan for redevelopment. Some residents argued incomplete information adds to their distrust to the

⁶ Meaning of ‘corruption’ needs a brief discussion here.

redevelopment (Interview: uncooperative residents, 2016-12-07). The size of affected residents means higher degree of heterogeneous demands, hence high bargaining cost for collective choice. With the least number of affected resident, Hetang is the only case to accomplish property assembly whilst the negotiation in the remaining cases went beyond eight years (Feng, 2017). The distrust obstructed residents to cooperate hence higher transaction cost. According to interviews with uncooperative residents, they no longer trust developers in land assembly process after observing their actions (Interview: uncooperative residents, 2016-12-07). Some claim that they expect local government to step in and will never sign agreement with any developers (Interview: uncooperative residents, 2016-12-12).

Ownership Transfer

The lack of constraint to developer's power in the property transfer stage also generates transaction cost. The process regulates market clearance shall commence after land assembly and relocation. In Mutoulong, to pressurise uncooperative residents to follow relocation decision, the developer started to demolish some existing buildings during negotiation process (SZBBS, 2011-2015). This arguable 'abuse of power' triggered grievance and distrust from uncooperative residents, resulting in project risk and escalating coordination cost.

A fair distribution of the redeveloped apartments is questioned by cooperative residents (Interview: cooperative residents, 2016-12-07). Some residents alleged developers may take opportunistic actions to compromise quality of new buildings and stealthily shrink relocated housing based on opportunistic behaviours of the developers in the previous stages.

6. THE INSTITUTION OBSTACLES OF MARKET-LED REDEVELOPMENT

Our analysis identifies four institutional obstacles leading to market failure in dilapidated residential redevelopment in Shenzhen. Firstly, there are loopholes in arranging obligation of stakeholders in the market-led process. Developer's obligation was assigned by the municipal government although it has insufficient resource to affirm myriad support affected residents, which led to the developer's fraudulent behaviour. The definition of property rights and quality of life conditions are ambiguous so neither the developer nor the local government was able to exhaustively measure them in the eight cases. Developers merely focused on the majority of residents for their consent. The local government approved the cases without knowing resident living conditions. The ambiguous property rights or low incentive for redevelopment led to market failure. This finding consists with Dawkins (2000) that only institutions make all relevant actors commit will result in their intended social outcomes.

Secondly, low transparency and costly supervision institutions resulted in rent-seeking behaviour. The deficiency of developer entry standards and low transparency of standards and procedures for project approval result in speculative developer action. Compared with the redevelopment practices in Asian developed countries, such as South Korea and Japan (Cho, 2011; Sorensen, 1999), Shenzhen lacks active participation by affected residents since the policy experiment fails to incentivise them to influence the agenda-setting stage. The lack of the third-party supervision such as NGOs may result in government-developer collusion, hence rent-seeking to damage public interest.

Thirdly, the new policy led to developer-resident power asymmetry, which also led to opportunism. With limited bargaining power, the developer is likely to subsidise the relocating residents to encourage cooperation. It intensifies asset specificity. The relocation contract creates dilemma for developers due to the conflict of the policy objective and the implementation process. The policy requirement of 100% resident consent strongly

empowered property owners while limiting the state intervention. It promotes owner opportunism. This empirical finding supports the argument that high price asked by the last few property owners in redevelopment process is often sufficient to forestall a redevelopment (O'flaherty, 1994). These costs eventually pass onto buyers of the redeveloped housing so to deteriorate its affordability.

Fourthly, the change in institution arrangement failed to create a fair bargaining environment via creating new transactions. The coordination cost for property assembly substantially escalated due to the size of stakeholder, their heterogeneous interests and the fragmented property rights. The control of stakeholder size also creates a bargaining environment which is necessary for establishing reliable relation (Williamson, 1971).

Market failure calls for an active role of the state to aim for socially optimal resource redistribution. When transaction costs impede the delineation of long-term contracts, public regulation is often a preferred mode of governance (Goldberg, 1976). Direct state intervention such as compulsory acquisition or eminent domain is a powerful means to correct dilemma in market-led land assembly. Active participation of property owners to develop effective compensation plan is critical to uncertainty deduction. The rule setting to limit compensation, especially the DCR, is critical to reduce property owners' unrealistic expectation so to constrain opportunism. This demands measure to solidify initial consent and punish opportunism.

7. CONCLUSIONS

This paper examines the institutional obstacles leading to market failure at the micro level in Shenzhen's urban redevelopment. By using a transaction cost approach, the institutional efficiency is evaluated in three steps: (1) illumination of transactions from formal institutional arrangements, (2) investigation of transaction costs related hazards and (3) identification of institutional roots for land market failure. Information costs and coordination costs are conceptualised as the two cost items of transaction cost in recognition of the important role of information sharing and coordination among stakeholders in urban redevelopment. These two cost items are often overlooked in the formulation of land use policies, especially in China's political regime (Lieberthal, 1995).

The urban consolidation policy experiment in Shenzhen is clearly using a trial-error approach. Developers devoted enormous investment but struggled with a dead-lock situation for resource assembly. The involvement of opportunistic developers and property owners increased project risk. Market failure for resource allocation not only reduced project financial feasibility, but also failed to address social welfare. The conflicts among the developer, the cooperative residents and uncooperative residents as well as the local government increased market cost and put social stability in jeopardy. The market-led consolidation policy created social hazards or transaction costs which led to the poor process efficiency. The developer-resident bargaining environment is not yet to be established so both parties have to take informal actions to achieve their ends. This not only prolongs project period but also causes market failure, leading to a mis-match between project operation and institutional arrangement. This situation suggests limit of the market system to constrain actor behaviour. Residents in China may develop distrust of the market. The opportunism actions of developers may reinforce some uncooperative residents' authoritative belief. The declining trust of the market mechanism significantly escalate transaction cost of land assembly. This paper, therefore, argues that, within the authoritative regime of state control with supreme power, effective market mechanism is not yet established at the local-level in the market-oriented institutional reform in China. The findings in this research respond to Stoker's

(2000) argument that market-oriented transformation in institutional arrangement may increase transaction costs of governance and lead to economic ineffective, because conflicting interests make the decision-making process hard to handle.

This paper contributes to the knowledge of micro-level state-market relations in China under neoliberalism. In the macro political economy of post-reform China, the interplay between state and market has been evolving (Han 2000; Han and Wang 2003; Li, Han and Wu 2018), and state entrepreneurialism needs to mobilise multitude of actors to use market as instrument to achieve stability and growth (Wu, 2017). This study argues that in redevelopment projects, market is assumed as a systematic mechanism to structure actor behaviour, enforce transaction and allocate resources, instead of being an instrument to promote development. The cases from Shenzhen attest the state's beginning to play a role to support market-led residential redevelopment. However, without effective institutional environment, the greater tendency towards market mechanism does not automatically lead to its success. As China's local governments experiment market mechanism to improve process efficiency in urban redevelopment, the measurability of factors in estimating the transaction cost deserves further study.

REFERENCES

- Abramson, D. (2011). Transitional property rights and local developmental history in China. *Urban Studies*, 48(3), 553-568.
- Alexander, E. R. (1992). A transaction cost theory of planning. *Journal of the American Planning Association*, 58(2), 190-200.
- Alexander, E. R. (2001a). Governance and transaction costs in planning systems: a conceptual framework for institutional analysis of land-use planning and development control—the case of Israel. *Environment and Planning B: Planning and Design*, 28(5), 755-776.
- Alexander, E. R. (2001b). A transaction-cost theory of land use planning and development control: towards the institutional analysis of public planning. *Town Planning Review*, 72(1), 45-76.
- Arrow, K. J. (1969). The organization of economic activity: issues pertinent to the choice of market versus nonmarket allocation. *The analysis and evaluation of public expenditure: the PPB system*, 1, 59-73.
- Ball, M. (1998). Institutions in British property research: a review. *Urban Studies*, 35(9), 1501-1517.
- Bator, F. M. (1958). The anatomy of market failure. *The Quarterly Journal of Economics*, 72(3), 351-379.
- Buitelaar, E. (2004). A transaction-cost analysis of the land development process. *Urban Studies*, 41(13), 2539-2553.
- Cho, C.-J. (2011). An analysis of the housing redevelopment process in Korea through the lens of the transaction cost framework. *Urban Studies*, 48(7), 1477-1501.
- Coase, R. H. (1959). The Federal Communications Commission. *Journal of Law and Economics*, 2, 1.
- Coase, R. H. (1960). The problem of social cost. *The journal of Law and Economics*, 56(4), 837-877.
- Dawkins, C. J. (2000). Transaction costs and the land use planning process. *Journal of Planning Literature*, 14(4), 507-518.
- De Neufville, J. I. (1981). *The land use policy debate in the United States*: Springer Science & Business Media.
- Dixit, A. K. (1998). *The making of economic policy: A transaction-cost politics perspective*: MIT press.
- Fang, K., & Zhang, Y. (2003). Plan and market mismatch: Urban redevelopment in Beijing during a period of transition. *Asia Pacific Viewpoint*, 44(2), 149-162.
- Feng, S. (2017, Nov-17). Only one case entered the implementation stage among all eight experimental cases. Oeeee.com. Retrieved from <http://www.oeeee.com/html/201711/17/517253.html>
- Foss, N. J., & Klein, P. G. (2010). Critiques of transaction cost economics: An overview. In *The Elgar companion to transaction cost economics*: Edward Elgar Publishing.
- Goldberg, V. P. (1976). Regulation and administered contracts. *The Bell Journal of Economics*, 426-448.
- Han, S. S. (2000). Shanghai between state and market in urban transformation. *Urban Studies*, 37(11), 2091-2112.
- Han, S. S., & Wang, Y. (2003). The institutional structure of a property market in inland China: Chongqing. *Urban Studies*, 40(1), 91-112.
- He, S. (2015). Homeowner associations and neighbourhood governance in Guangzhou, China. *Eurasian Geography and Economics*, 56(3), 260-284.
- He, S., & Wu, F. (2007). Socio-spatial impacts of property-led redevelopment on China's urban neighbourhoods. *Cities*, 24(3), 194-208.

TWENTY FIFTH ANNUAL PACIFIC-RIM REAL ESTATE SOCIETY CONFERENCE

MELBOURNE, AUSTRALIA, 14-16 JANUARY 2019

- He, S., & Wu, F. (2009). China's Emerging Neoliberal Urbanism: Perspectives from Urban Redevelopment. *Antipode*, 41(2), 282-304.
- Hirschman, A. O. (1970). *Exit, voice, and loyalty: Responses to decline in firms, organizations, and states (Vol. 25)*: Harvard university press.
- Imperial, M. T. (1999). Analysing institutional arrangements for ecosystem-based management: Lessons from the Rhode Island Salt Ponds SAM Plan. *Coastal Management*, 27(1), 31-56.
- Lai, Y., Chan, E. H. W., & Choy, L. (2017). Village-led land development under state-led institutional arrangements in urbanising China: The case of Shenzhen. *Urban Studies*, 54(7), 1736-1759.
- Li, B., & Liu, C. (2017). Emerging selective regimes in a fragmented authoritarian environment: The 'three old redevelopment policy in Guangzhou, China from 2009 to 2014. *Urban Studies*, 0042098017716846.
- Li, L., & Li, X. (2011). Redevelopment of urban villages in Shenzhen, China – An analysis of power relations and urban coalitions. *Habitat International*, 35(3), 426-434.
- Li, X., Han, S. S., & Wu, H. (2018). Urban consolidation, power relations, and dilapidated residential redevelopment in Mutoulong, Shenzhen, China. *Urban Studies*, list DOI
- Lieberthal, K. (1995). *Governing China: From revolution through reform*: WW Norton.
- Lin, G. C. S. (2015). The Redevelopment of China's Construction Land: Practising Land Property Rights in Cities through Renewals. *China Quarterly (London)*, 224, 865-887.
- Ma, J. (2013, Jan-30). Who signed the supporting documents using my name? Developer was accused of forging supporting documents in Nanyuan Xincun. Fang.com. Retrieved from <http://sz.esf.fang.com/newsecond/news/9462957.htm>
- Masten, S. E., Meehan, J. W., & Snyder, E. A. (1991). The costs of organization. *Journal of Law, Economics, & Organization*, 7(1), 1-25.
- National People's Congress. (2007). Property Right Law. Retrieved from
- North, D. C. (1990). A transaction cost theory of politics. *Journal of Theoretical Politics*, 2(4), 355-367.
- North, D. C. (1992). *Transaction costs, institutions, and economic performance*: ICS Press San Francisco, CA.
- O'Flaherty, B. (1994). Land assembly and urban renewal. *Regional Science and Urban Economics*, 24(3), 287-300.
- Po, L. (2011). Property Rights Reforms and Changing Grassroots Governance in China's Urban—Rural Peripheries: The Case of Changping District in Beijing. *Urban Studies*, 48(3), 509-528.
- Poulton, M. C. (1997). Externalities, transaction costs, public choice and the appeal of zoning: a response to Lai Wai Chung and Sorensen. *Town Planning Review*, 68(1), 81.
- Schoon, S. (2014). Chinese strategies of experimental governance. The underlying forces influencing urban restructuring in the Pearl River Delta. *Cities*, 41, 194-199.
- Shenzhen Municipal Government. (2009). Measures for urban renewal in Shenzhen.
- Shenzhen municipal Government. (2012). Detailed Rules for Urban Redevelopment implementation in Shenzhen.
- Sorensen, A. (1999). Land readjustment, urban planning and urban sprawl in the Tokyo metropolitan area. *Urban Studies*, 36(13), 2333-2360.
- Southern Metropolis Daily. (2014, July-11). The investigation of the eight experimental residential redevelopment cases in Shenzhen. Southern Metropolis Daily. Retrieved from https://xw.qq.com/sz_house/20140711012533/2014071101253300
- SZBBS. (2011-2015). The diary of uncooperative residents. Retrieved from <https://szbbs.sznews.com/thread-1155296-1-1.html>
- The State Council. (2011). Regulation on the Expropriation of Buildings on State-owned Land and Compensation.
- Tian, L., & Yao, Z. (2018). From state-dominant to bottom-up redevelopment: Can institutional change facilitate urban and rural redevelopment in China. *Cities*, 76, 72-83.
- Wallis, J. J., & North, D. (1986). Measuring the transaction sector in the American economy, 1870-1970. In *Long-term factors in American economic growth* (pp. 95-162): University of Chicago Press.
- Williamson, O. E. (1971). The vertical integration of production: market failure considerations. *The American Economic Review*, 61(2), 112-123.
- Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *American Journal of Sociology*, 87(3), 548-577.
- Williamson, O. E. (1985). *The economic institutions of capitalism*: Simon and Schuster.
- Williamson, O. E. (1993). Opportunism and its critics. *Managerial and Decision Economics*, 14(2), 97-107.
- Wu, F. (2017). Planning centrality, market instruments: Governing Chinese urban transformation under state entrepreneurialism. *Urban Studies*, 55(7), 1383-1399.
- Yang, Y.-R., & Chang, C.-H. (2007). An Urban Regeneration Regime in China: A Case Study of Urban Redevelopment in Shanghai's Taipingqiao Area. *Urban Studies*, 44(9), 1809-1826.
doi:10.1080/00420980701507787

TWENTY FIFTH ANNUAL PACIFIC-RIM REAL ESTATE SOCIETY CONFERENCE

MELBOURNE, AUSTRALIA, 14-16 JANUARY 2019

- Ye, L. (2011). Urban regeneration in China: Policy, development, and issues. *Local Economy*, 26(5), 337-347. doi:10.1177/0269094211409117
- Ye, L. (2014). *Examining China's Urban Redevelopment: Land Types, Targeted Policies, and Public Participation*. In *Maturing Megacities* (pp. 123-138): Springer.
- Zhai, B., & Ng, M. K. (2013). Urban regeneration and social capital in China: A case study of the Drum Tower Muslim District in Xi'an. *Cities*, 35, 14-25.
- Zhang, L., Chen, J., & Tochen, R. M. (2016). Shifts in governance modes in urban redevelopment: A case study of Beijing's Jiuxianqiao Area. *Cities*, 53, 61-69.
- Zhang, M. (2008). From public to private: The newly enacted Chinese property law and the protection of property rights in China. *Berkeley Bus. LJ*, 5, 317.
- Zhou, S. (2016, Jan-14). Eight residential redevelopment cases in Shenzhen facing enormous difficulties in redevelopment implementation. Shenzhen Evening Newspaper. Retrieved from http://sz.southcn.com/content/2016-01/14/content_140771558.htm?COLLCC=1280225329&COLLCC=1949902161&COLLCC=1280225329&
- Zhu, J. (2004). Local developmental state and order in China's urban development during transition. *International Journal of Urban and Regional Research*, 28(2), 424-447.