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Fictitious commodification of land to solve rural crises?: Lessons from an experiment in rural Chengdu, China

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ABSTRACT

This article examines the Chinese government's ongoing controlled experiment to empower rural communities and revitalise rural spaces through the fictitious commodification of rural collective operational construction land (i.e., land used for commercial or operational businesses). We show how local governments in Pidu, one of the selected experiment sites, exploited the political opening to pursue their own landed interests and, in doing so, continued to exploit and marginalise rural communities. The competing interests of local and central governments in rural land commodification—combined with the ambiguous regulatory framework for this type of rural land and the overall conditions of the land market—frustrated the complete and effective commodification of such land. Broadening these lessons to experiments in general, we suggest that effective monitoring mechanisms centring processual and distributional justice are needed to keep experiments in check and realise their potential in bringing about positive changes.

1. Introduction

In early 2015, about one year after reiterating its commitment to deepening market-oriented reforms, the Chinese central government introduced a new round of land reform to further facilitate the marketisation of rural collective operational construction land (*nongcun jiti jingyinxing jianshe yongdi* in Chinese, hereafter RCOC land) (The Central Committee of the Chinese Communist Party, 2013). RCOC land is used for industrial production, warehouses, and services (GOCCCPC, 2014). The 2015 reform allowed such land to be sold on the market (like urban construction land under state ownership), provided the intended projects complied with existing land use planning and regulations.

The 2015 reform responded to several longstanding problems with rural land management in China. Conventionally, state-led land expropriation—converting collectively owned land into state-owned land—is a prerequisite in making rural land available for urban construction. This regulatory arrangement allowed local governments to monopolise land supply and extract revenues from land commodification by buying cheaply from rural households and selling at higher prices to investors and developers (Hsing, 2010). Since most public investment in China focuses on expanding cities, rural areas have experienced a rapid decline. The Chinese central government acknowledges that this development mode is exclusionary and unsustainable (China State Council, 2014). The prescription for this problem—treating rural and urban land equally—was formally enshrined as a political agenda in 2008 (The Central Committee of the Communist Party of China, 2008) and has since gained increasing traction, especially amongst local governments. The 2015 reform furthers the central government's interest in this prescription to stimulate rural development, empower rural residents, and promote a more inclusive, equitable and coordinated development of rural and urban areas.

Rather than establishing fine-tuned rules and immediately promoting the 2015 reform nationwide, the central government undertook what Heilmann (2008a, p. 24) calls a 'controlled experimentation' approach. As the chief architect, the central government selected 33 pilot sites and directed local authorities in these sites to find context-specific means to achieve the reform's objectives (NPC Standing Committee, 2015). The expectation was that some local experiments would be evaluated, retained, promoted and replicated nationwide in the future.

This article examines the local implementation of this national experiment and the implications for supposed beneficiaries—rural households and communities. We do so through the case of Pidu, a district of Chengdu in southwestern China. Pidu has been a national

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leader in rural land reforms since the early 2000s and was selected as a pilot site for the 2015 reform. Our analysis contributes to the literatures on experiments (Heilmann, 2008a, Karvonen and Van Heur, 2014) and fictitious commodities (Polanyi, 2001[1944]). We join Qian and Lu (2022a) in providing a detailed account of how experiments shape rural spaces to address urban bias in burgeoning literatures on urban laboratories and experiments in (primarily) western cities (Savini and Bertolini, 2019, Karvonen and Van Heur, 2014). We demonstrate how the RCOC land commodification experiment enacted exceptional rules for local actors (see also Heilmann, 2008b) and brought local state agents into complicated interactions with residents and other state units.

We retain Polanyi's 'fictitious commodity' concept (cf.Christophers, 2016, p. 137), as it reminds us that various arrangements must be made to trade land as if it were a commodity subject to the illusion of a self-regulating market (Polanyi, 2001[1944]). Some of these arrangements perform what Ghertner and Lake (2021, p. 16) call 'regulatory, legal, narrative fictions' of land necessary to expand commodification frontiers. Others fall under Polanyi's counter-movements—mitigating, restraining or reversing the effects of land's commodification. We suggest that the exceptional rules enacted by the 2015 reform can be considered an overarching regulatory fiction, namely 'idealized and reified norms governing social conventions and ways of being' to cultivate confidence in 'the stability of market-bureaucratic procedures' and 'conventions of exchange' regarding land as a commodity (Ghertner and Lake, 2021, pp. 7, 15). This fiction embodies the conflicting interests of the Chinese state vis-à-vis land commodification. We also unravel other historical and regulatory fictions, as well as myriad devices and arrangements that facilitate or counter RCOC land commodification.

While the experiment aimed to exploit market instruments, local governments ultimately played an indispensable role in the process. However, despite all their efforts, RCOC land in Pidu was neither successfully nor completely commodified. This was not due to resistance from rural households. Rather, it was caused by the peculiarities of RCOC land, the overall land market in Pidu, ambiguous regulatory fictions arising from the experimental nature of the process, and the incongruent interests of central and local governments in this experiment. Therefore, Pidu's experiment became an opportunity for local states to continue pursuing their landed interests (contra the goals of the 2015 reform). Rural residents, on the other hand, had little influence over the parameters or process of the experiment and continued to be exploited and marginalised.

The next section continues outlining the conceptual debates that have aided our understanding and the methods used to collect data. This is followed by two sections dissecting the fictitious commodification of RCOC land. We review China's regulatory frameworks on land management and earlier waves of land commodification in Pidu that resulted in many failed land development projects (see Table 1). This frames the significance of the 2015 reform for local governments in Pidu and the fictions and arrangements created by local governments to support a local experiment in RCOC land commodification. Finally, we discuss the implications of the ongoing experiment for rural households.

2. Experiments and land as a fictitious commodity

Experiments to address climate change, smart cities, and urban infrastructures in many western cities (e.g., Living Labs and Urban Labs) have attracted significant attention (Bulkeley et al., 2016; Cugurullo, 2018; Evans et al., 2016; Karvonen and Van Heur, 2014). These are not science lab experiments, which religiously follow predetermined protocols to identify causal relationships between controllable variables. Rather, experiments in the social domain recognise the complexity and uncertainties of social realities and are—at least in theory—reliant on the co-creation of situated knowledge by diverse groups of actors who are reflexively involved in the process to bring about positive changes (Karvonen and Van Heur, 2014, Bulkeley and Castán Broto, 2013). These commitments form the core of optimism surrounding experiments. Their explosive expansion in (primarily western) cities has led some to claim that experiments are now an important lens from which to understand urban interventions, or as Bulkeley and Castán Broto (2013) suggest, changing modes of governance in contemporary cities.

China, which is marginal in this expanding western-centric literature, has a well-established tradition of using experiments to generate novel policies in both cities and the countryside (Kirkegaard, 2017, Lim, 2019, Zee, 2021). The Chinese state has traditionally been the main initiator, leader and assessor of experiments (Heilmann, 2008a, b), although it seemed to move away from experiments after Xi Jinping's rise to power (Teets and Hasmath, 2020); some social groups now actively contribute to such experiments (Qian and Lu, 2022a, 2022b). Novel interventions and initiatives are usually tested in a few pilot sites by local governments and successful, replicable ideas are incorporated into national policies (Heilmann, 2008b). According to Heilmann and Perry (2011), experiment-based policy-making grows out of the revolutionary legacies of the Communist Party, which considers the social world to be full of uncertainty and constant change. Consequently,

Table 1
Comparison of DRT Schemes and RCOC Land Projects.

Elements		DRT Schemes		RCOC Land Projects
		DRT Scheme 1	DRT Scheme 2	
Rationale		Decrease rural construction land in sending zones and transfer development rights to receiving zones in *peri*-urban areas to serve the interests of urban expansion	Decrease rural construction land to accommodate development projects in the countryside (sending zones and receiving zones are both in rural areas)	Resuscitate struggling projects under DRT Scheme 2
Scale		Nationwide	Chengdu government practices, unapproved by the central government	Controlled experiment; Pidu was one pilot site
Fictitious commodification of land	Dispossession	State-sponsored demolition of village housing and other built structures	Developer-sponsored demolition of village housing and other built structures	New developers took over unfinished demolition under DRT Scheme 2
	Exchange	Conveyance	'Who invests, who gains' (negotiation before demolition)	Auction, tendering, listing and negotiation
	Land's additional functions	Non-collateralisable	Non-collateralisable	Collateralizable; and monetisable (as equity investments)
Operation Modes		One developer of one DRT project in one village; wholesale destruction of an entire village	Same as DRT Scheme 1	Multiple developers might be involved; piecemeal demolition
Consequences		Resettlement completed; development rights sold and subsequent development projects completed	Most failed; delayed resettlement; development stalled	Ongoing

Source: Authors.

policy-making must 'actively manage uncertainty', learn from trials, and quickly adapt to changing circumstances (Heilmann and Perry, 2011, p. 23). Many policies and institutions produced by local experiments have not been effective or efficient when judged by market-economic standards; however, as Heilmann (2008b) notes, they have improved the welfare of multiple stakeholders.

Two aspects of experiments (both inside and outside China) are important for understanding RCOC land commodification. First, in the Chinese context, experiment sites are not simply 'niches', where disruptive practices are created and tested within established orders (Savini and Bertolini, 2019, p. 831). Rather, experiments enact exceptionality, creating what Ong (2006) calls zones of exception. Recognised sites are often awarded additional resources, and rules created for experiments are often exceptional to prevailing regulatory frameworks and not applicable elsewhere (Heilmann, 2008b). Exceptional conditions created by experiments may be exploited by authorities in experiment sites, who adopt boundary-expanding, or even boundary-crossing, measures to promote local interests (Perry and Heilmann, 2011, Chen, 2013). Second, whilst experiments are purposive (Bulkeley and Castán Broto, 2013), controlled (Heilmann, 2008a) or conditioned (Hodson et al., 2018) interventions, it is also important to recognise that experiments in social spheres do not follow detailed, predetermined plans and are historically and geographically contingent (Karvonen and Van Heur, 2014). In China, authorities involved in experiments have considerable scope for manoeuvring, so long as their choices do not undermine fundamental principles or strategic interests (Heilmann and Perry, 2011).

To join discussions on fictitious commodities (Polanyi, 2001[1944]) and debates on experiments, we delve into the detailed workings and contradictions of commodifying land. For Polanyi (2001[1944]), land, money and labour are fictitious commodities. Land—another name for nature—is not produced by humans and is entangled with values, relations and institutions beyond the economic (Polanyi, 2001[1944], pp. 75,187). The fictitiousness of land as a commodity is socially constructed. Various arrangements and 'land fictions' must be created and reproduced to strip land's non-economic properties and turn it into 'a delimited and bounded acreage with biophysical, agroclimatic, and locational characteristics that can be benchmarked, compared with other land objects, priced, alienated, and transferred from one user to another' (Ghertner and Lake, 2021, p. 8, also Levien, 2021).

On the other hand, following Polanyi (2001[1944], p. 79), the expansion of commodity frontiers demands that limits are imposed on the commodification of land, labour and money. As Polanyi (2001[1944], p. 76) argued, 'to allow the market mechanisms to be the sole director of the fate of human beings and their natural environment indeed, even of the amount and use of purchasing power, would result in the demolition of society'. Polanyi used the term 'double movements' to capture the dynamics involved in market expansion (Polanyi's movements) and political management of fictitious commodification to prevent social destruction (Polanyi's counter-movements). However, it should be noted that political management can take different forms. Some more offensive arrangements aim at decommodification, while others take a more protective approach by directly 'intervening' in the market or 'limiting' the impacts of the complete commodification of society and nature (Goodwin, 2018, p. 1274). In both, the state plays a significant role in creating, shaping and overseeing the supply and demand of fictitious commodities and the market in general (Block, 2003). This often surfaces ambivalence and tensions within the state.

This last point is particularly relevant in China. A large body of work has rightly underscored the fiscal function of land commodification—a primary reason that local governments push for land enclosures and commodification in the countryside. This is driven by the tax and fiscal restructuring of the 1990s, which created a mismatch between revenue collection and spending responsibilities (Cai et al., 2021, Rithmire, 2015). Land commodification and real estate development allowed local governments to hold onto a significant portion of revenues; they compensated the many important tax streams lost to the central government and supplemented municipal finance for the provision of infrastructure and services (Lin, 2014).

While local governments' economic motives are important to register, the existing literature also shows how land commodification is driven by non-economic rationales and interests (Chen et al., 2017), including pacifying the 'losers' of economic restructuring (Rithmire, 2015) and promoting equitable rural–urban development (Cui, 2011). Conflicts also emerge from central and local governments' different priorities for land. Land commodification and real estate development are aligned with the central government's interest in economic growth. However, problems like housing unaffordability, loss of arable land, dispossession-related grievances, and economic instability have forced the central government to periodically intervene and adjust the scale and intensity of land commodification (He, 2019; Liu, 2022). For instance, most rural land is still deliberately kept outside the competitive land markets, despite waves of fictitious commodification since the reform. This measure, according to Wen (2013) (who served in several positions in national government agencies), provides a safety net for out-migrating rural households who are unable to survive in cities and helps cushion the impacts of cyclic capital accumulation crises. Viewed from a Polanyian perspective, fictitious commodification of land and labour are both politically managed in China—the management of one creates conditions for the other. The Chinese state plays an important role in double movements and oscillates between offensive and protective approaches to fictitious commodification. Most importantly, different agents of the state may simultaneously occupy contradictory positions in the process.

Controlled experiments under the 2015 reform were political arrangements to both support and regulate RCOC land. On the one hand, the 2015 reform enacted exceptional rules or a regulatory fiction (explained in the next section), removing barriers to using RCOC land as an investible commodity. On the other hand, it limited local experiments to RCOC land and to selected pilot sites. It was not a full-blown movement to commodify rural land. This follows the Chinese central government's longstanding cautious approach to (and tight management of) rural land commodification in order to balance its dual interests—growth and stability (also see Chen et al., 2017).

It is crucial to acknowledge that arrangements and fictions specific to this experiment were not pre-determined, robust or coherent from the outset (though RCOC land commodification was shaped by many pre-existing arrangements and fictions). The next section highlights arrangements and fictions related to two moments of land commodification. The first is dispossession—an essential prerequisite for land to trade on the market—which, according to Levien (2021), Polanyi failed to fully register. The other concerns exchange (Robertson, 2000)—how the market is assembled and how land is priced and transferred.

The empirical materials presented below were collected through three rounds of fieldwork in nine villages in Pidu between 2017 and 2021. Three of these villages were recommended by the research participants as 'best practices' to showcase the achievement of the 2015 reform. We selected the others based on our initial fieldwork findings. We consulted a wide range of secondary materials, including national and local policies, land transaction records and media reports. These materials are complemented by interviews, which allowed us to seek clarifications on policy texts, understand different perspectives, and triangulate data from multiple sources. Participants included 10 rural grassroots organisation staff members, 13 rural residents, 11 officials from district and municipal government agencies, 16 employees from quasi-state institutions facilitating land commodification and 2 academic experts. In addition, we observed Pidu district government-organised training sessions for village cadres to promote RCOC land commodification and prepare them to respond to household concerns. These training sessions offered access to the technical, fine print guidelines and arrangements for RCOC land commodification, which are rarely found in officially published texts. Thematic analysis was

employed to analyse interview transcripts, fieldwork notes, policies and other texts. Phased fieldwork allowed us to deal with emerging analytical patterns and seek explanations for discrepancies in data from multiple sources during our preliminary analyses.

3. The past life of land in RCOC land commodification experiment zone

Social sphere experiments do not take place in a vacuum; they are plugged into and affected by existing social relations and governance programmes. In this section, we consider the history of the land incorporated into local experiments in Pidu. We also review China's regulatory frameworks on land (i.e., regulatory fictions) to contextualise the significance of the 2015 reform for local governments in Pidu. The next section examines how local governments crafted fictitious commodification of RCOC land.

China's land regulatory frameworks are a patchwork produced through Polanyian double movements. In addition to the well-known distinction between collectively owned rural land and state-owned urban land, land can also be broadly categorised by its use into construction land, farmland and unutilised land (land used but not in ways desirable to local governments). Land functions and ownership (and any changes therein) are administratively controlled through hierarchical land use planning and technologically controlled with remote sensing and land surveying (Du, 2021). Both farmland and construction land in the countryside are strictly regulated. For the former, a farmland replacement mechanism requires local governments to compensate for farmland lost to construction in one location through farmland consolidation or restoration projects elsewhere (Lin, 2009). For the latter, rural land may be used for three types of construction projects: public works, housing, and operational businesses. Because collective ownership over rural land lies at the heart of the social contract between rural residents and the state, acquiring rural land for housing construction is preconditioned on membership in a rural collective. However, this restriction was recently relaxed when a central government pilot project investigated building rental housing on rural land to remedy the housing affordability crisis (Tian et al., 2020).

The use of rural land for operational business (by rural collectives) was introduced in 1985 to support the development of the rural economy (Central Committee and The State Council, 1985). This significantly benefited township and village enterprises (TVEs) which, until the assault on the collective and state-owned economic sector in the 1990s, boosted rural productivity, absorbed rural surplus labour and improved collective rural welfare (Naughton, 2007). After the real estate frenzy (Rithmire, 2015), the central government reverted its position in the Urban Real Estate Administration Law in 1994 and re-established the state's monopoly over selling rural land for construction projects (NPC Standing Committee, 1994). This position was reiterated in an amendment to the Land Administration Law in 1998, which states that collectively owned rural land must be converted to state ownership before it can be commodified for construction projects (NPC Standing Committee, 1998). However, one exception was carved out for TVEs struggling to stay financially afloat. Legally acquired rural construction land could be transferred in the event of bankruptcy or mergers within the limits of the land use plans (NPC Standing Committee, 1998). In 1999, the central government prohibited local governments from building beyond land use plans, banned the transfer or lease of rural land, and restricted its use for non-agricultural purposes to curtail rampant land enclosures in the countryside and local state agents' rent-seeking behaviours (General Office of the State Council, 1999). Supplying land to TVEs had to respect land use plans, and specific protocols were required to invoke the 1998 exception (General Office of the State Council, 1999).

Subsequent regulations and legal amendments consistently restricted rural land use and reinforced the monopoly of the state in the primary land market (i.e., land markets where land is acquired through state-led appropriation). Of course, this did not prevent illicit land uses or black markets where rural land is sold for construction, especially real estate development (Ho and Lin, 2003). However, such practices carry considerable risks due to a lack of state approval, recognition, and property rights (Zhang and He, 2020). Against this backdrop, development rights transfer (DRT) schemes (transferring development rights of one land parcel to another; see Linkous (2016)) derived from the aforementioned farmland replacement mechanisms emerged in a few cities. The central government eventually recognised these local practices and implemented a bureaucratic, administrative approval process for DRTs.

The 2015 reform experiment created another opening for some local governments to realise the commodity potential of rural RCOC land. Reflective of Polanyian counter-movements (Goodwin, 2018), the Chinese government laid out three conditions to control the experiment and prevent large-scale discontent over policy failures. Local experiments had to: 1) ensure the public ownership of land; 2) prevent farmland from shrinking below 120 million hectares; and 3) protect the interests of rural households (NPC Standing Committee, 2015). The central government also created exceptional rules applicable only to selected experiment sites, thus turning them into zones of exception (Ong, 2006). Several codes in the Land Administration Law and Urban Real Estate Administrative Law that prohibited the commodification of RCOC land were suspended in the experiment zones. This made it possible for RCOC land to be sold like urban construction land—that is, without state-led expropriation and subsequent ownership conversion (NPC Standing Committee, 2015). The central government also delegated power to township and district/county-level authorities if rural housing construction was involved (NPC Standing Committee, 2015). The calculation of compensation amounts no longer hinged on agricultural output. Instead, local governments could determine compensation levels for displaced rural people based on factors like local economic conditions, average living standards, and the location of the land (NPC Standing Committee, 2015). Local authorities—the main experimenters—were granted considerable autonomy to explore various approaches to best suit local conditions. Regulatory fictions were suspended and revised to ensure the regularity of operating principles and provide protection for underlying property relations and commodity exchanges.

Local governments in Pidu seized this moment of relative autonomy to resuscitate struggling land commodification and development projects carried out under previous DRT schemes. There were two waves of DRT schemes in Pidu: 1) national experimentation of coordinated rural–urban development promoted since 2007 and 2) post-disaster reconstruction after a 2008 earthquake in Sichuan (Wilczak, 2020). These schemes each had distinctive geographical and financial arrangements (see Table 1). The first type of DRT scheme generated development rights from rural areas through so-called rural construction land consolidation projects. Financed by public monies, these projects entailed demolishing rural settlements, restoring construction land into farmland, and resettling rural households in planned neighbourhoods. This process released development rights since the planned resettlement areas had much smaller footprints than demolished rural housing. These rights were then sold to external investors or developers for development projects in *peri*-urban areas. The Pidu government approved 20 such DRT projects, all of which were registered with the central government (14 DRT schemes were approved for the post-earthquake reconstruction).

Because this type of DRT scheme required substantial upfront investment, local governments in Pidu created a second DRT variant to offload the financial burden. In this model, development rights were generated and consumed in rural areas, usually within the same village. This DRT variant involved 39 projects, none of which were approved by the central government since these projects typically destroyed and redeveloped entire villages. The municipal government of Chengdu found external investors to finance farmland restoration and the construction of resettlement housing in exchange for land for profit-oriented

projects. Most investors poured their capital into non-farming activities and facilities. These investments—now called 'rustic complexes'—sought to promote circular agriculture (reducing inputs and reusing residuals generated by agricultural production) and redevelop rural spaces to appeal to tourists and urbanites.

Both types of DRT schemes imagined land quantitatively; they sought to release development rights to accommodate higher-revenue projects. They also undermined the interests of rural households. For example, only 5% of revenues (after tax and fee deduction) generated by the first type of DRT were returned to rural households (National School of Development (Peking University), 2010). In a quintessential example of accumulation through extra-economic means (also see Kan, 2020), disinterested families were pressured by village cadres and more willing fellow villagers to participate in the DRT schemes and give up their land and homes.

Implementing DRT projects, especially the second variant, has become increasingly difficult. Firstly, there is a lengthy chain of reviews and inspections by state units at different levels and functional lines to consider the suitability of restored farmland for farming, the quality of resettlements, and rural household opinions. If any problems emerge in this process—which is common—local governments only have one chance to rectify the issue before DRT plans are permanently shelved. The second challenge is financial. Resettlements were a cumbersome burden, both for public coffers and external investors. The high costs of resettlement and low profitability meant there was little interest in the second type of DRT schemes. Limited development options, on the other hand, resulted in homogenised tourist landscapes and intensive competition for tourist traffic, which worsened the financial performance of DRT development projects. More importantly, because the second type of DRT circumvented state control and lacked legal basis, investors could not present their land to financial institutions as collateral. Even though the central government started to promote 'rustic complexes' as a tool to revitalise rural economies in the late 2010s, many projects in Pidu remained insolvent. Poor financial performances had further implications for families involved, including delayed delivery of resettlement and cash payments (i.e., land rent and compensation), which generated much discontent (interviews, 2017–2019).

As one state official candidly explained (interview, 2019), being selected as a pilot site for the RCOC land commodification gave local governments an opportunity to rescue failing DRT projects while also pushing into new frontiers of land commodification. Local governments had a considerable degree of flexibility (within the boundaries determined by the central government) to make necessary arrangements and fictions to support RCOC land commodification. As we show below, although the experiment aimed to employ market mechanisms, local governments were heavily involved in the supply and demand of RCOC land. They played a dual role—both regulator and organiser of the RCOC land markets *and* broker and mediator of RCOC land sales. Rural communities had little meaningful control over the process.

4. An anatomy of Pidu's experiment: (Dis)continuities and frictions

This section traces RCOC land's journey to become a commodity (see Table 1). It examines two essential moments of this process—dispossession and exchange. Although experiments are often used to identify alternative or novel methods and solutions, our analysis shows how Pidu's experiment is 'both embedded in histories and habits of knowing and inherently engaged in the technopolitical processes that undermined those habits and reformat them to other possibilities' (Zee, 2021, p. 25). Local governments in Pidu used a mixture of old and new techniques, fictions and arrangements in the fictitious commodification of RCOC land.

4.1. Dispossession and manufacturing RCOC land

Land for Pidu's experiment primarily came from two sources: 1) land occupied by tourism-oriented projects under previous DRT schemes, especially failing ones, and 2) remaining rural settlements. To incorporate these lands into the experiment, local governments in Pidu manufactured a historical fiction and 'creatively' redefined eligibility for the experiment by manipulating land's past and future life. In the first case, they changed the registration status of land already used for tourism into RCOC land in the official cadastral to qualify for the experiment. Granted, land already used for tourism or other businesses can be realistically classified as operational construction land. However, doing so demands that land's histories are rewritten to conceal the fact that it was often acquired through illicit, exploitative and dispossessive practices under unapproved DRT schemes. This also deflects attention from mounting grievances caused by delayed payments and resettlements, and unfair distribution of land rents.

In contrast, the inclusion of land occupied by existing rural settlements assumed a speculative logic. It was justified under the premise that such land plots would *eventually* be subsumed into commercial purposes. The demolition of built structures and the displacement of occupants was considered inevitable. Therefore, if the previous case demonstrated a dispossession of history, this instance of dispossession deprived rural households of possible futures (i.e., using their land for alternative, non-commercial purposes). With the assistance of Villagers' Committees (the 'grassroots organisations' for rural self-governance—in practice, absorbed by the state), local governments reassigned property rights rather than taking land right away. Although land remained collectively owned, use rights were removed from individual households and centralised under the control of production teams (a group of villagers).

As Zhang and Wu (2017) rightly note, changing land use types can change land prices. Therefore, registering rural settlements as RCOC land could, in theory, increase the land's economic value. The centralisation of use rights could also increase rural residents' group bargaining power. On the other hand, these changes allowed local governments to reduce the transaction costs for interested buyers and, therefore, sell larger plots of land. Interested investors only had to deal with representatives, most of which were grassroots cadres and state agents. The cumbersome negotiation of land acquisition terms and contested claims from rural residents (whose interests did not always align) were dealt with by government bodies. This made residents susceptible to coercive power and divisive tactics commonly used in land expropriation (see Hsing, 2010). As an investor commented, 'if we directly negotiate with villagers, it is a matter between a private business and private individuals. It is challenging to reach any agreement…this is completely different if governments are involved. They represent public interests. If government agencies negotiate with villagers, costs are definitely lower…you know how Chinese governments have things done' (interview, January 2021).

It must also be pointed out that changing land's registered status did not completely remove its non-economic qualities. Any remaining built structures still had to be demolished and agreements with rural residents had to be reached, which, in the case of Pidu's experiment, was usually done at a later stage after potential buyers had been identified. But, the historical fiction created through expediating administrative changes of land's classification is important to comply with the conditions laid out in the overarching regulatory fiction—only RCOC land is allowed to be commodified. This also instilled investor confidence and assured them that the RCOC land in question had legitimate titles and was worth their investments. Resistance was also reduced by temporally separating the administrative dispossession of land rights from the actual expropriation of land and housing.

In addition to the historical fiction, to further attract investors and protect their investments, local governments followed the prevailing regulations for urban land and invented new regulations for the use of

RCOC land. External investors can acquire use rights for 40 years if they use the land for businesses or other service industries, and for 50 years if the land is used for industrial production. By specifying these timeframes, the regulatory fiction promises predictability and allows investors to plan land projects and calculate investability. In addition, further regulatory fictions were created to expand the function of RCOC land. Buyers can monetise land by using it for equity investments in development projects or as collateral to borrow from capital markets.

4.2. Organising the exchange of RCOC land

Simply having land available for trading is not sufficient. A market must be assembled for sellers and buyers to price land and exchange titles to realise commodity value. This process was politically fraught. Local governments had extensive reach in organising both the supply and the demand of RCOC land, although their involvement was obscured through a series of quasi-state agencies. Inspired by previous experiences in land management and commodification, they made more arrangements and regulatory fictions to this end.

On the supply side, as explained in the previous section, the manipulation of land's registered status foregrounds the representation of collective interests. Learning from prevailing practices of shareholding reforms (see Kan, 2019), local governments helped establish village-level shareholding companies to manage collectively-owned assets, including land, and represent rural residents in RCOC land exchanges. These collective asset management companies (or CAMCs) were typically governed by three management boards, namely the board of shareholder representatives (responsible for all major decisions), the board of directors (in charge of day-to-day management and the contractual body entering into RCOC land deals), and the supervisory board (overseeing financial management to avoid embezzlement or corruption).

CAMCs and their internal separation of powers created the illusion of democratisation in rural governance and management of collective assets, which seemed to empower rural residents (Chen, 2016). In practice, however, CAMCs mirrored existing rural governing institutions and power networks. Key positions across all three boards were held by cadres from the Villagers' Committees. According to one informant from a rural village in Pidu, shareholder representatives who oversaw the major decisions were generally leaders of villager groups, members of the Villagers' Committees, and part of the Village Party Branch; only a few ordinary villagers took an active role (interviewed July 2019). This personnel arrangement meant that state-controlled rural grassroots organisations steered land's commodification and trading processes. Like shareholding reforms observed by Kan (2019, pp. 18–20) in southern China, power asymmetries in rural communities were consolidated and exacerbated by the shareholding structure that managed and speculated on collectively owned assets.

These village politics are evident in the valuation of RCOC land. Given the hegemonic position of money (Harvey, 1996), it is little surprise that money was the denominator of value in Pidu's experiment. However, since rural construction land was prohibited from free exchanges until 2015, there were no references for determining the monetary values of RCOC land. To address this problem, local governments established a benchmark price system to determine a minimum price for RCOC land. This followed past examples that established similar benchmark price systems for urban land (Ding, 2001). The district government of Pidu considered location, connective infrastructure, environment, planned use, costs of land clearance, and socio-economic levels. Land in each town was further divided into several categories with unique monetary values. The resulting benchmarking price system reflected the uneven geographies of development since more developed rural sites garnered higher monetary values. In Hongguang (a sub-administrative unit of Pidu), for instance, land used for purposes other than industrial production was divided into three grades (internal data). For business and service industries, Grade I land was valued at 1500 CNY per square meter, Grade II at 1150 CNY per square meter, and Grade III at 880 CNY per square meter (internal data).

As with the benchmarking price system in urban land markets, further adjustments reflected the specific qualitative properties of individual land parcels. This was achieved through the mediation of Villagers' Committees. The most common way to adjust land values was to reference the costs of land clearance (e.g., housing demolition, land reclamation, and resettlement construction). The adjusted land values were then passed onto the assemblies of villagers or their representatives, organised by Villagers' Committees, for deliberation and voting. Once two-thirds of the villagers or their representatives voted in favour, the adjusted land values were set.

The benchmark pricing system and the mandatory deliberation of price adjustments constitute another regulatory fiction. They were *practical* because they provide a convenient reference for valuing land and *strategic* since they prevent RCOC land's exchange values from falling to a level destructive to rural communities and detrimental to social stability. At the same time, they allow grassroots quasi-state agencies to mediate and facilitate price negotiation. In this sense, they contentiously play the dual role of double movements (Polanyi, 2001 [1944]). On the one hand, such pricing systems are necessary for the commodification of RCOC land. On the other, they are an example of a protective counter-movement arrangement (Goodwin, 2018), limiting the impacts of complete land commodification without stopping commodification or leading to decommodification. However, as Harvey (1996, p. 151) reminds us, 'to speak in money terms is always to speak in a language which the holders of social power appreciate and understand'. Although rural villagers appeared to have some influence over monetary land valuation, the benchmark price system set low land prices; later adjustments considered the costs of land clearance but excluded potential future rents. These valuation methods worked to the advantage of investors, who could push RCOC land prices down and expect decent profit margins.

While voting created an appearance of democratic, collective, and grassroots decision-making, villagers' participation in these assemblies was symbolic. The process was largely dominated by village cadres and a few elites—ordinary villagers had little influence in CAMCs and their management boards. Worse still, most involved villagers focussed on individualistic, short-term interests, especially compensation for land and housing, not on collective, long-term gains from land value increases or proposed land development projects. Majority-rule voting also created conflicts among villagers—those who prioritised non-monetary values felt pressure from their peers and changing physical landscapes (see also Doll (2022) on Anhui). As one interviewee explained, some people were unwilling to evacuate and assigned significant emotional value to their (soon-to-be-demolished) houses. This interviewee's family spent many months building and decorating their home, but eventually gave in because 'the surroundings had changed' and they 'had to adapt to the changed circumstances' (interview, July 2019).

To facilitate RCOC land exchange, local governments set up a group of quasi-state organisations as brokers. The Pidu Branch of the Chengdu Agricultural Property Exchange (hereafter, the Pidu Branch) served this role in Pidu. The Chengdu Agricultural Property Exchange was created in 2008 by the Chengdu municipal government as a marketplace for collectively owned rural assets. It was jointly funded by two state-owned enterprises (Chengdu Investment Group Co., Ltd and Chengdu Modern Agricultural Development Investment Co., Ltd), the corporate arms of the local governments used for market activities and accessing capital. The Chengdu Agricultural Property Exchange, alongside the Sichuan Cuisine Industry Investment Development Company Ltd, provided the initial capital for the local branch in Pidu.

The Pidu Branch assumed responsibility for logistically and administratively organising the RCOC land marketplace by advertising land information, arranging market 'encounters' (Çalışkan and Callon, 2010), and documenting the exchange. As a public agency, it also

intervened in the supply of RCOC land to react to changes in the macro-economy and the overall real estate markets. However, despite being publicly funded and partially performing state roles, the branch also pursued its own profits. It charged sellers (CAMCs and, by extension, rural residents) and buyers (investors and developers) a fee for each successful transaction and offered to assist rural communities with assembling RCOC land for sale, at a cost. The latter fee was justified based on the claim that complying with the regulatory fiction for RCOC land commodification required specialist knowledge and considerable paperwork for villagers and their representatives.

In line with regulatory fictions for urban land exchange (The Ministry of Land and Resources of People's Republic of China, 2007), regulatory fiction for RCOC land specified four ways of trading: auction (open bidding at a specific time and place), tendering (closed bidding between potential buyers invited by sellers), listing (buyers offering to buy listed land and prices are updated in real time), and negotiation (between investors and government authorities). The first three means presuppose an effective demand. Competition between investors was expected to increase transaction prices and, consequently, generate more money to redistribute to rural communities as a premium (less the costs of land clearance and the transaction fees). In Pidu, due to little effective demand, listing and negotiation were the most common approaches. Theoretically, listing could increase land prices through open competition between interested buyers. In Pidu, however, most investors were brought in by district governments and there was little competition amongst them. Consequently, land transaction prices did not rise as expected. This is evidenced by the accessible land transaction records collected from Baiyun Village. Between 2016 and 2019, 11 RCOC land parcels were sold through listing. The transaction prices of all land plots were the same as the initial listed prices, which were calculated based on the costs of land clearance and resettlement. Therefore, rural communities did not receive any premium beyond the standard compensation for the loss of their houses and land.

Investors' lack of enthusiasm may be attributed to two factors. First, although local governments in Pidu enacted exceptions to protect potential buyers' property rights, regulations on how to use acquired RCOC land remained ambiguous, due to the experiment nature of RCOC land commodification. It was unclear whether RCOC land could be used for real estate development, which would offer high profit margins, though some investors did use RCOC land for higher-end real estate projects in Pidu. For instance, in Baiyun Village, investors planned to build 670 villas, each costing around 2.5 million CNY. However, they kept those projects out of the spotlight to avoid unwanted attention (since it is debatable whether residential real estate development was considered 'operational purposes,' in compliance with the existing land use plans). Moreover, using RCOC land for real estate development also meant that substantial landed revenues were redirected to rural communities and away from local governments, thereby undermining local governments' dominance in real estate markets and their interest in landed revenues. This is why the central government's call to use collectively-owned rural land to build affordable housing only received lukewarm responses from local governments (Tian et al., 2020).

Second, the risk of upsetting local governments and possibly violating regulations was even more disproportionate since land for real estate development could still be acquired relatively cheaply from the conventional state-dominated land markets. Regulatory frameworks for such land are better-established than for RCOC land, highlighting another contradiction of the 2015 reform. If RCOC land was to be treated like urban construction land in the state-dominated land market, increased supply would push the prices of all construction land down. If treated differently, it would be irrational for developers and investors to pay more to acquire RCOC land than urban construction land. In places like Pidu, with no shortage of land supply, capturing a premium for rural communities through competitive bidding was unlikely, if not entirely fictional.

Thus, it is no surprise that most households participating in Pidu's experiment did not receive any premium from RCOC land transactions beyond compensation for giving up land and homes. Compensation took the form of money (on average 35,000 CNY per household) and resettlement housing. Two resettlement options were offered. Displaced residents could opt for apartments in master-planned resettlement buildings or terraced housing. Each person was entitled to 35 square meters for free. Larger apartments were available, but displaced residents had to pay for the extra space. In contrast, terraced housing was only sold to displaced families for about 40,000 CNY. In this case, entitlement to resettlement housing was optional. This arrangement was justified by the claim that residents had the freedom to choose future lifestyles (interview with a village cadre, July 2019). The ironic fact was that the only choice residents had was to move away. Rural residents were also completely excluded from claiming stakes in profit-oriented projects built over their homes and communities. As a grassroots state agent admitted in an interview, developers had to make money from their investments and 'there is no way developers would let villagers take a cut and share the profit' (July 2019).

Although provisional, Pidu's response to the 2015 reform did not seem to shake conventional land acquisition and development practices, and probably worsened the situation for rural communities. This is not surprising given that Pidu's experiment set out to boost failing DRT projects and complete the unfinished businesses of restructuring rural spaces (rather than addressing the central government's interest in empowering rural residents). Ambiguous regulatory frameworks ensured that RCOC land was neither fully nor effectively commodified in Pidu.

5. Conclusion

Land occupies a central place in Chinese politics and economy (Hsing, 2010, Lin, 2009). This article examined the expansion of commodity frontiers into so-called rural collective operational construction land in the context of a controlled experiment. Mirroring the surging number of urban experiments in the West (Evans et al., 2016), the Chinese state extensively uses experiments to loosen constraints and identify alternative ways to deal with socio-ecological challenges whilst containing the risks of failures (Heilmann, 2008b, Kirkegaard, 2017). Drawing on Polanyian debates on the fictitious commodification of land, we attempted to specify the arrangements and fictions created and reproduced to turn land into a commodity in Pidu's experiment. We considered exceptional rules enacted by the national government as an overarching regulatory fiction, playing a dual role of facilitating and regulating RCOC land commodification. Local governments-cum-experimenters mobilised many additional arrangements and fictions within the boundaries of the controlled experiment, often drawing upon established practices and past experiences with land management (e.g., the benchmark pricing system and collective asset management companies). In particular, we highlighted the historical fiction of land written through flexibly adjusting land's registered status. Much land incorporated into Pidu's experiment did not strictly qualify as RCOC land, so subsequent efforts to commodify RCOC land rested on shaky foundations.

The 2015 experiment was expected to find new ways to harness the power of the market and use land commodification to support more equitable development, revitalise rural economies and empower rural communities. Our analysis paints a bleaker picture and shows that the experiment excluded and marginalised rural communities. Local governments exploited the loose conditions and fictions they created to deal with the crisis emerging from failing rural land commodification and development projects. The commodification experiment in Pidu did not meet the central government's intended goals due to weak demand for RCOC land and ambiguous regulatory fictions about RCOC land's possible future use.

Our findings on central-local government relations in Pidu's experiment enrich understandings of state politics and their impacts on

fictitious commodification and counter-movements. We support Wu's (2018, p. 1384) observation that the Chinese state is enthusiastically 'introducing, developing and deploying market instruments' and engaging with 'market-like entrepreneurial activities'. However, this analysis drew attention to the different and sometimes conflicting interests and rationalities within the Chinese state. The central government's objective for the land experiment went beyond revenue generation. It attempted to limit the impacts of commodification by opting for an experiment and imposing some fundamental—albeit inadequate—conditions. While local governments in Pidu were keen to realise the commodity potential of RCOC land, their benchmark price system prevented RCOC land from being completely dictated by market supply and demand relationships. Thus, RCOC land was not and, in fact, can never be completely commodified. The state plays important offensive and protective roles in both commodification and counter-movements (Goodwin, 2018).

Pidu's idiosyncratic conditions certainly affected the processes and outcomes of its land experiment. However, its lessons also help us assess the promises of experiments, as an increasingly popular mode of policy-making and governance (Bulkeley and Castán Broto, 2013). By highlighting the ugly side of experiments, our intent is not to completely dismiss their potential to bring about positive or even transformative changes. We simply caution against policymakers' loud celebrations of experiments. For experiments to realise these potentials, *a priori* monitoring and feedback mechanisms must be established. Such mechanisms should not simply focus on deviations from intended goals; they must centre questions of distributional outcomes and processual justice. This is particularly necessary for experiments involving drastic changes to land use patterns and people's livelihoods. Injustices incurred and contradictions involved in the commodification of land must be more effectively managed. It is easy to put the brakes on a policy experiment; however, mitigating or reversing damages done to people's lives and lived spaces is much more difficult. Therefore, such mechanisms should also involve people on the receiving end of experiments in more meaningful ways.

CRediT authorship contribution statement

Renhao Yang: Methodology, Investigation, Writing – original draft, Writing – review & editing. **Yunpeng Zhang:** Conceptualization, Supervision, Investigation, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The data that has been used is confidential.

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