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Informality, property rights, and poverty in China's "favelas"

CHRIS WEBSTER [a], FULONG WU [b], FANGZHU ZHANG [b] and CHINMOY SARKAR [a,*]

[a] *Faculty of Architecture and Ronald Coase Centre for Property Rights Research, HKU, Pokfulam Road, Hong Kong*

[b] *Bartlett School of Planning, UCL, Central House, 14 Upper Woburn Place, London WC1H 0NN, UK*

Summary. — In this study of households living in informal settlements in three principal Chinese cities, we analyze the associations between informality, property rights, and poverty. We propose that informality can be understood in terms of property rights (presence/absence, strength, completeness, and ambiguity). Drawing on the property rights (entitlements) theories of Sen, de Soto, Ostrom, Alchian, and Coase, we refine a list of property rights effects that can be tested empirically. Using a household questionnaire survey of 1,208 respondents from a representative sample of 60 urban villages in Beijing, Shanghai, and Guangzhou, we use robust regression models to detect statistical relationships between household performance on six poverty domains as a function of four property rights domains, controlling for income, human capital, and other influences. We find evidence for what we call Sen effects and de Soto effects. Our models show that some property rights are associated with lower poverty indicators. But we also find evidence to show that the absence, weakness, or ambiguity of property rights also reduce poverty indicators on particular domains, through what we assume to be a substitution effect. Informal settlements permit poorer household to live at lower costs than is usually, or officially, acceptable, and thus spend more on other welfare-enhancing expenditures. The distribution of property rights determines the size, distribution, and impacts of these trade-offs and shapes the economic and social performance of informal settlements.

Key words — *chengzhongcun*, slums, urban poverty, Sen, de Soto, property rights

1. INTRODUCTION

Informality is a widely used and contested notion used to characterize large parts of the housing sector in developing countries (Gilbert, 2002; Roy, 2011). The intensive study of informal settlements in the second half of the twentieth century has yielded a variety of explanations, definitions, and conceptualizations (Bhalla, 1990; Davis, 2006; De Soto, 2000; Harris & Todaro, 1970; Mangin, 1967; Mullan, Grosjean, & Kontoleon, 2011 and many others). Much of the discussion revolves around land tenure, poverty, self-organization, government interventions, migration, income disparity, informal economy, infrastructure, and governance issues. Most commentators would regard informal urban neighborhoods as a solution for the low-incomed, especially recent migrants, but also a problem for many modernizing municipal governments. They arise and are distinguishable from other types of neighborhood through processes of land development that lie to various degrees outside of legal land conversion, development, and building processes. Because of the lack of laws governing their subdivision, construction, maintenance, and governance, they are often viewed as slums. They are endured and even encouraged by governments because land conversion within formal legal frameworks renders housing unaffordable to large swaths of urban populations in developing countries. Formalizing or at least stabilizing tenure, infrastructure, and services are emphasized in normative studies.

The applicability of the concept of informal settlements to China has been debated because of the absence of squatter communities in that country (Wu, Zhang, & Webster, 2013). It is clear, however, that China does have an informal housing sector in its so-called *chengzhongcun*, or 'villages in the city' (urban villages for short) (Tian, 2008; Zhang & Zhao, 2003). Since housing in these quarters is either owner-occupied or rental, formal land tenure categories cannot alone be used to define and study housing market informality. Chengzhongcun are not squatter settlements in the normal use of the term. There are features of them, however, such as their densification, which *are* illegal or partially legal. It is development rights, or air-rights above a legally owned plot of housing land that, if anything, can be described as being squatted (i.e., appropriated and occupied without legal authorization). The unique proprietary condition of China's "favelas" demands innovation in the way informality is defined and measured (Zhao & Webster, 2011).

To probe the meaning and consequences of informality in China's contemporary informal settlements we combine insights from several, typically unrelated, behavioral theories of property rights, notably: Armen Alchian's economic theory of property rights (1965); Amartya Sen's notion of entitlement failure (1981, 1997); Hernando de Soto's propositions about the economic deepening effects of property rights security (2000); Eleanor Ostrom's theory of collective rights (1990); and Ronald Coase's transaction costs theory of property rights (1937, 1960). We select these theoretical ideas because they have proven to be powerful and influential in investigating a wide range of political-economic issues (three of the authors are Nobel laureates). Each provides an analytical framework that gives a particular insight into the impact of laws on resource allocation. This is precisely what is needed in understanding the origins, dynamics, and impacts of informal settlements since, as we have noted, the latter are characterized by degrees of legality.

Amartya Sen (1981) tells us that the terms of trade between entitlements and food can lead to poverty, vulnerability, and starvation. By extension, a household's "entitlement-set" (set of entitlements or property rights) and its mapping to various essential urban resources (what those rights can be exchanged for) may lead to poverty, vulnerability, and "starvation" not

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only of food but of housing, education, health care, and so on. De Soto (2000) emphasizes the effects of formalized entitlements (or property rights – the two terms are used interchangeably in our paper) on poverty, vulnerability, and wealth creation; arguing that property rights make resources tradable, including the conversion of land into credit, and that ownership prevents leakage of returns from investment and thus increases petty entrepreneurship and productive upgrading of assets. Ostrom (1990) tells us that formal property rights are not necessary to achieve social order in respect of scarce co-consumed goods; common property can be effectively brought into productive use if the right cultural and institutional conditions exist. Alchian (1965) tells us that entitlements are held by degrees, which is not an insight formally incorporated into de Soto's, Sen's or Ostrom's analyses, nor generally used in derivative studies. Coase (1960) suggests that the distribution of property rights determines the economic outcome of a resource allocation problem and that transaction costs determine the supply and distribution of property rights.

Bringing these ideas together, we propose in this paper to define and measure "informality" by a property rights profile that includes absolute and degrees of entitlements. We use this household "informality profile" to help explain income, food, and housing poverty among a pseudo random sample of 1,208 households living in "urban villages" in three first-tier Chinese cities. We believe that this is the first time these ideas have been brought together in this way, both theoretically and empirically. This theoretical and empirical innovation, we suggest, is particularly useful for understanding the dynamics of informal settlements in China; but it may also help unlock new insights elsewhere. This may especially be so where property rights are complex, dynamic, and evolving at the interface of spontaneous action and government action, as is often the case in squatter-led urbanization that has matured and co-evolved with the formally planned system, such as in large parts of Istanbul for example.

One of our main objectives in the paper is to test and further develop a theory of informality based on Chinese data but applicable elsewhere. Our basic proposition is that informality can be empirically and theoretically defined in terms of the absence/presence and strength or degree of property rights. This, we offer as a theoretical development in the scholarship of informal settlements.

Our empirical analysis both illustrates the proposition and tests its explanatory power by measuring the systematic impact of household property rights (informality) profiles on household poverty.

Interpretation of the empirical results then takes the theoretical agenda a step further by making explicit connections to the "big-picture" political science theories summarized above. We illustrate how those theories can give further nuanced insights into the empirical models developed on the basis of the starting proposition that informality can be defined empirically by enumerating a detailed list of property rights on several poverty-relevant domains.

The rest of the paper is structured as follows. Section 2 considers what informality means in the context of migrant-worker housing in Chinese cities. Section 3 probes the idea of informality using a variety of property rights concepts and introduces a set of propositions linking property rights, informality, and poverty. Section 4 sets out the method used in our empirical study of urban villages, including a description of six poverty indicators in four interrelated domains (income, savings, food, and housing poverty) and a set of property rights indicators under four categories (household registration, social-security, employment, and housing rights) that, we hypothesize, influence poverty measures. Section 5 presents the results from a set of robust regression models, which estimate the effects of these entitlements on the poverty indicators. Section 6 is a discussion that links these results to property rights propositions in Section 3; and Section 7 concludes.

2. CHINA'S "INFORMAL SETTLEMENTS

The existence, status, and function of modern Chinese "slums" have been ambiguous during the 30 years of China's post-reform urbanization era. For a long time, urban poverty was not officially recognized (Gustafsson & Li, 2004; Ravallion & Chen, 2007); the emphasis being placed on the staggering reduction of rural poverty through labor and land market reforms and the associated shift of underproductive rural workers to productive (but low-pay) urban jobs (Appleton & Song, 2007). More recently however, governments have acknowledged the existence and scale of urban poverty (Wang, 2004) and attention has been drawn to the urban neighborhoods accommodating the urban poor: principally, former work unit block housing; residual pre-1949 streets left un-redeveloped through the centrally planned era; and the *chengzhongcun*, (urban villages) (Wu, 2004). On the face of it, the "slum" designation might well apply to the last two of these (Gilbert, 2007), since it is in these neighborhoods that housing and urban facility poverty seems to coincide with income poverty and vulnerability (Wu, He, & Webster, 2010). The vast majority on an urban low income now live in urban villages across China, with the numbers being greater in the cities of the south. Urban villages clearly perform some kind of equivalent role to the informal settlements of other rapidly developing countries (Perlman, 2010) in that they comprise, in a large part, informally or semi-formally built low-cost homes inhabited by rural–urban migrants.

But there are two significant differences compared to the informal settlements typical of other developing countries. The first is that these are not squatter settlements. They are a unique style of private rental provision (Kung, 2000; Tian, 2008; Wang, Wang, & Wu, 2009; Zhu, 2002). The second is that they are formed under a unique land tenure and set of collective ownership institutions: collectively owned village land governed by a village collective administration typically incorporated as a joint stock company (Wang *et al.*, 2009).

This means that the *informality* in China's informal settlements does not principally mean lack of regularized (legally binding) tenure. The majority of the urban poor have signed a rental contract with their landlord. Rather, the informality is created by a blend of institutions from the collective and post-collective era co-evolving in parallel (Zhao & Webster, 2011; Woo & Webster, 2014) for a formal discussion of co-evolution of private and collective urban institutions). China's informal settlements are a particular legacy of the "one-country–two-systems" reformist policy of Deng Xiaoping. And because of the pragmatism of that policy, especially in the Southern coastal cities where it combines with powerful clan-based local politics (Tian, 2008), China's "favelas" are as much a part of the DNA of its sprawling cities as are Rio's (Perlman, 2010).

We ask, in this paper, how the complicated bundle of property rights conferred on urban village dwellers by multiple institutions before and during China's economic transformation affects their income, savings, food, and housing poverty status.

Rights conferred upon owner-occupiers and tenants of China's urban village buildings vary on several important