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Author(s): Victor Nee and Yang Cao

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## **Path dependent societal transformation: Stratification in hybrid mixed economies<sup>1</sup>**

VICTOR NEE and YANG CAO

*Cornell University*

The demise of centrally planned economies and the global resurgence of markets in the closing decades of the twentieth century have profound implications for sociological theory. Dominant trends in sociological thought have long seen government intervention as the mechanism through which society could save itself from the ravages of the “satanic mill” – as both Marx and Polanyi labeled the unregulated capitalist market and firm. But we are now in the era of a global economy littered with shipwrecked socialist states and reshaped by the unleashing of market forces. Small wonder that rethinking the role of markets has moved to center stage, as evidenced in the debate on market transition in postsocialist societies.<sup>2</sup>

The renewed interest in marketization engages central problems concerning large-scale societal transformations that were earlier addressed by the classical sociological theorists – questions of the causes and effects of far-reaching institutional change. Today these issues are at the forefront of research on the transitions from state socialism. In the “market transition debate,” controversy has centered on where to assign causal priority in reshaping the stratification order, whether to the institutional domains of the market, the state, or community-level arrangements. Whereas the market transition framework has placed priority on the effect of an *emergent market economy*,<sup>3</sup> critics argue instead for either a *state-centered approach* stressing the role of political actors<sup>4</sup> or a *society-centered approach*<sup>5</sup> emphasizing the importance of community- and firm-based networks as structural constraints. State-centered analysts emphasize an underlying continuity in the institutionalized power of political actors, who are in a position to arbitrate transactions between political and economic markets, and thus to exploit new opportunities for profit and gain. Society-centered arguments point to how network ties function as a key coordinating

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mechanism in the transition economy. Both these perspectives concur that networks dominated by political actors remain potent social bases of power and privilege despite market reform and even regime change.

Where the market transition framework differs is not with respect to the causes of underlying continuity – the aggregate agency of political actors with positional power in the state and preexisting interfirm and community-based networks, which it agrees, are important in shaping markets.<sup>6</sup> From the start this framework incorporated state intervention and political agents into the causal repertoire of market transition.<sup>7</sup> The difference lies in the claim that the emergence of a market economy entails incremental change in the relative earnings that can be ascribed to political rather than human capital, and that this in turn results in predictable changes in the mechanisms of stratification.

Path dependence is a cornerstone concept of comparative analysis of the transitions from state socialism. The concept of path dependence earlier appeared in the business and economics literature to account for the lock-in tendency observed when a particular technology becomes accepted as an industry standard – for example, the QWERTY typewriter keyboard, which has remained dominant despite repeated attempts to introduce alternatives.<sup>8</sup> Initially, the concept was applied to account for the phenomenon of persistent domination by inferior technologies in competitive markets despite the availability of a superior rival, as in the rivalry in video-tape technology between VHS and Sony Betamax.<sup>9</sup> Subsequently, the concept of path dependence was extended by institutional theorists to account for both the continuity in institutional change and the variability of institutional environments.<sup>10</sup> Institutions persist over time not only for reasons of legitimacy, but because powerful individuals and groups have a vested interest in maintaining the status quo. Moreover, like organizations, institutions face powerful inertial forces that are not only interest-based, but locked into inter-related institutional structures.<sup>11</sup>

In studies of transition economies this concept thus far has been evoked to characterize the mechanisms that reproduce and perpetuate core features of the preexisting social order. In classical state socialism, the axial institution was the party-state, which not only managed the economy by fiat power but also maintained direct political controls over the entire ensemble of societal institutions. In state-centered accounts of transition, the structure of public-ownership and long-standard vertical ties linking government bureaus with economic

actors perpetuate a pattern of resource dependence deeply entrenched in the economy and society. The institutional legacy of the communist political order – both its formal and informal dimensions – comprises the main mechanisms giving rise to persistence of the preexisting stratification order. As Neil Fligstein observes, “the heavy hand of the state is everywhere” in postsocialist societies.<sup>12</sup> It follows that the politics of transition reinforce the preexisting stratification order insofar as the old communist elite succeeds in employing and deflecting institutional change to shore up vested interests.

Notwithstanding this, path dependent societal transformation in emergent market economies entails cumulative change in the stratification order. Although the state constitutes an important and even decisive causal force in departures from state socialism, an expanding market economy activates a substantially broader base of economic and social participation that contributes to shaping the postsocialist stratification order. Markets are constructed through a myriad of decentralized transactions between economic actors. Institutional changes induced by market action are incremental as they result from decentralized decisions encompassing diverse interests and tendencies. Path dependence is not contradicted by the claim that cumulatively the scale and pace of such institutional changes both erode and incrementally transform the preexisting state socialist stratification order.

What is at issue is not the persistence of the old in the new, since this is an obvious point already analytically incorporated into the market transition framework, but to identify *what properties of the emergent institutional arrangements transform or reinforce the preexisting stratification order*. In this article, we address the issue of path dependence by examining how in China the mix of property forms in the provincial industrial economy and local institutional environment influence both the direction and extent of change in the stratification order. We argue that the postsocialist stratification order in China is shaped by the ways in which institutional changes transform property rights and the governance structures of firms. We then replicate an earlier test of market transition theory, using a different national data-set – from the Chinese Household Income Project (CHIP) – in an attempt to judge the competing hypotheses and to resolve empirical differences stemming from the market transition debate.

From the classical theorists of societal transformation, we draw the lesson that an adequate causal account of macroscopic change employs

a multi-level model. This is clearly demonstrated in Polanyi's study of the "great transformation" giving rise to modern market societies in the West.<sup>13</sup> His analysis focused on the interactions among new market forces, community countermeasures, and state interventions. The causal imagery in Polanyi's analysis brought together local institutional arrangements and state intervention in a model in which markets play a central role in shaping the direction of societal transformation. Polanyi overstated the distinction between archaic market arrangements and the "self-regulating" markets of modern capitalism, but the enduring aspect of his legacy is the scope of his macrosocietal theory of transformation, which like Weber's institutional theory developed in response to Marx. Although Weber is identified with emphasizing the role of religious belief, his last work, *General Economic History*, formulated a multi-level causal theory of the rise of modern capitalism in which unrestricted markets in the neoclassical sense, free labor, rationalized technology, and entrepreneurial organization of capital were essential institutional foundations of capitalist economies.<sup>14</sup> In Weber's causal chain, the bureaucratic state and religion were key causal forces in the rise of modern capitalism. In Marx, property rights, the market, state, firm, ideology, and relations of production combined in a general theory of societal transformation. These classical theorists provided much of the conceptual groundwork for the modern institutional approach, which the market transition framework extends to studies of transitions from state socialism.

### **Path dependence in societal transformation**

Path dependent institutional change can be seen in every society insofar as institutions provide a framework for stable expectations and routine interactions. The idea of path dependence suggests the image of a societal trajectory shaped by the preexisting institutional framework in which discontinuous change is uncommon. Empirically, path dependence is embodied in the persistence of long-standing institutional arrangements despite attempts to change them. As in technological diffusion, *institutional change is likely to involve multiple equilibria in which certain institutions can persist despite competition from others that once established might be equally or even more viable. The consequence of previous events can determine which institutional arrangement will prevail. Once a solution is reached, powerful interests lock into emergent institutional arrangements, making it difficult to exit from them.*

Institutions are not merely sources of resistance to be overcome, however, but also resources for the formation of new routines.<sup>15</sup> Whereas self-perpetuating mechanisms in institutions tend to frustrate efforts to bring about change, other aspects of the institutional structure may prove to be conducive to changes in certain directions, though resistant to others. Douglass North's influential study *Structure and Change in Economic History* showed that major institutional changes in the evolution of human societies were induced by changes in relative prices.<sup>16</sup> As individuals and corporate actors attempt to exploit new opportunities, they undermine or remake the existing institutional arrangements. Although significant changes of relative price create incentives for political and economic entrepreneurs to initiate change, the consequences of their action, either intended or unintended, may well provide the opportunity for other actors to divert the change into different or even opposite directions. Thus, when different institutional alternatives are advocated following changes in relative prices, it is difficult and indeed unwise to predict in advance which one will win out simply by looking at the initiator's calculation. Macro-institutional change cannot be fully designed:<sup>17</sup> its initiation may be purposive, but the outcome is emergent, shaped by routines implanted in customary practices, social norms, and networks.

A starting point of path dependent analysis is the examination of underlying continuity in the structure of property rights and governance structures.<sup>18</sup> Not only state-owned enterprises are involved in shaping the trajectories of exit, but so are hybrid property forms that combine features of the preexisting governance structure and public property rights to gain competitive advantages in the transition economy. These public and semi-public property forms are likely to continue to dominate the industrial economy where barriers to entry limit competition from private firms. Given continuities in the structure of property rights, it follows that preexisting patron-client ties linking state bureaucrats with societal actors persist in postsocialist societies as a highly fungible form of political and social capital.<sup>19</sup> Economic liberalization releases the old communist elite from preexisting organizational controls, enabling them to pursue rents in boundary transactions between the public and market sectors of the transition economy.<sup>20</sup>

In the market transition debate, the state and society-centered approaches have been tendered as rival orienting frameworks in competition with the market transition approach. But to what extent are

state and society-centered arguments actually in conflict with the market transition approach? The hypotheses associated with the state-centered approach address the persistent advantage and adaptive strategies of the communist elite in the early period of the transition. Because of the continuities in the underlying institutional arrangements, e.g., property rights and work organizations, the communist elite can maintain considerable power and privileges, resulting in persistent or even augmented cadre advantages under conditions of market reform. This is the power-persistence argument.<sup>21</sup> The closely related power-conversion argument maintains that these initial advantages in the reform period, in combination with events triggered by the imminent collapse of state socialism, enable the communist elite to emerge as the main beneficiary of the shift to a market economy.<sup>22</sup> According to Rona-Tas, once it became clear that the collapse of Hungarian state-socialism was imminent, the old communist elite sought to adapt to regime change by converting its political and social capital – positional power and network ties – into economic capital in the newly privatized corporate economy.<sup>23</sup> A similar pattern of power conversion took place in Russia where elements of the old communist elite utilized the state-sponsored privatization program to transfer ownership of state assets to themselves and their cronies. Both arguments assume an ease of convertibility of political capital into economic capital in the transitions from state socialism. Market transition theory *concur*s with this, but maintains that an emergent market economy incrementally enhances the earnings return to human capital and hence diminishes the significance of political capital.<sup>24</sup>

The theory emphasizes that in sectors and regions of the transition economy “where allocation and distribution continue to be based upon central decision, there will be little or no change in the processes determining stratification.”<sup>25</sup> Critics of the market transition theory overlook this important *scope condition*, which, if taken into account, helps to reconcile the seemingly opposing predictions generated by state-centered and market transition hypotheses. Because in the early stages of market transition, the dominant sectors of the postsocialist economy remain state-owned, the predictions of the ease of convertibility of political capital into economic capital are not necessarily inconsistent with market transition theory. State-sponsored privatization is redistributive insofar as the price of state assets and the selection of “buyers” are determined by the state. But, if emerging markets serve as the primary institutional domain of power conversion, as opposed to the sectors of the transition economy in which state allocation and

quasi-markets still dominate, then market transition theory's predictions are clearly contradicted. Hence, it depends on the institutional contexts in which corporate and individual actors are located. Implicit in the theory's scope condition is the incorporation of predictions derived from the state-centered approach as *contingent* hypotheses.

What differentiates market transition from other approaches is the interest in deriving predictions about changes in opportunity structures. The market transition approach maintains that the emergence of a market economy incrementally alters the structure of property rights and therefore opportunity for nonstate economic actors. Mature market economies encompass a matrix of institutions and organizations, including laws and regulations specifying and enforcing property rights and governance structures, market-oriented organizations (i.e., firms, associations, trade unions), economic institutions such as labor, commodity, and financial markets, and consumer-oriented cultural production. Although the political domain still confers important sources of power and privilege, the emergence of a market economy involves an expansion of new opportunity structures intertwined with economic markets and market-oriented institutions, domestic and global, which are increasingly interdependent. In postsocialist societies, the growth of market-based opportunity structures and social networks leads to a decline in resource dependence on the state. Moreover, the expansion of decentralized economic transactions culminates in an increasing proportion of resources transacted between buyers and sellers beyond the reach of the centrally planned economy. In the transition economy, political actors strive to augment their power and privilege, which accounts for their persistent – even augmented – advantages, but nonstate economic actors also pursue power and privilege in market institutions, which previously either did not exist, or were severely constrained by the socialist state.

In summary, the market transition approach provides an integrative conceptual framework that has sought to incorporate the state- (and also society) centered<sup>26</sup> approaches in a multidimensional causal form.<sup>27</sup> Figure 1 shows how the market transition conceptual framework incorporates these approaches into an integrative theory. State-centered analysts emphasize the role of the state in specifying and monitoring the fundamental rules of competition and cooperation in a societal order. Studies of communist political orders extend the state-centered approach to show the overwhelming power of the party state in shaping the economic and social order in state socialist societies. Society-



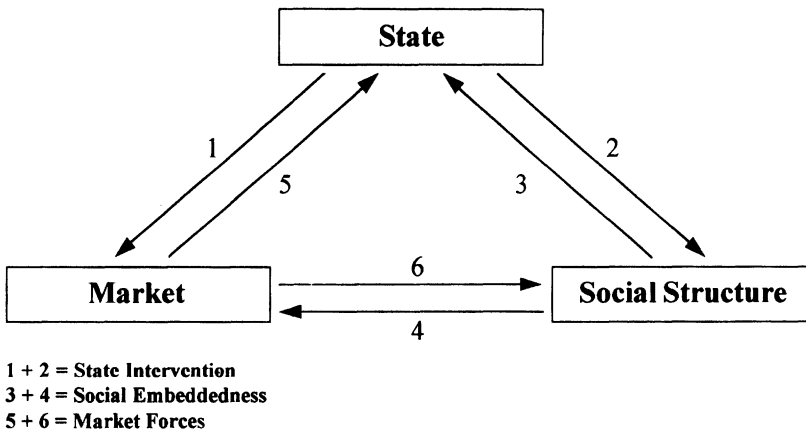


Figure 1. Market transition conceptual framework.

centered analysts, on the other hand, emphasize the importance of social networks in shaping political and economic action. Following Mark Granovetter, they extend the Polanyian concept of embeddedness to underscore the causal significance of social networks in both the institutional domains of markets and hierarchies.<sup>28</sup> As Figure 1 shows, the market transition conceptual framework incorporates the role of the state and the effect of social structure in shaping the kind of market economy that emerges. But it also highlights the growing significance of market forces as causal mechanism in the transformation of the postsocialist state and social structure. By attending to how an emergent market economy induces changes in relative prices, the market transition approach is capable of fine-tuning the sort of predictions that the state-centered and society-centered approaches are likely to generate. For example, market transition theory can specify the window of opportunity during which the old redistributive elite can convert political to economic capital or else lose their advantage. *As long as major productive assets are owned or controlled by the state, officials will pursue power-conversion the more political capital is diminished relative to the appreciation of economic capital.*

Fine-tuning can also be seen in the theory's interest in specifying the relative importance of political versus human capital in different regions and sectors of the transition economy. Market transition theory argues that the rise of market institutions (e.g., labor markets) triggers the dynamics of change in relative earnings both within the institutional domain of the expanding market economy and between comparable workers in the market and state sectors of the transition economy.

Under state socialism, the administrative elite holds a monopoly on power and privilege by means of their control over resource allocation. In an expanding market economy, the administrative elite must compete for power and privilege often in markets in which comparative advantage is secured by means of human capital, defined as competence acquired through formal education and work experience. Even though both forms of capital may be embodied in the same person, administrative expertise is a form of human capital and should be conceptually differentiated from political capital.<sup>29</sup> Political capital, a form of social capital comprised of on-going relationships between and with political actors, has more currency when scarce resources are primarily allocated by the state. *Political capital is likely to persist as a strong predictor of advantage in the sectors of the transition economy that are state-owned. It is also likely to persist as a stronger predictor than human capital where structural holes at the boundaries of the state and nonstate sectors of the economy provide opportunities for political actors to serve as middlemen in economic transactions.*

To recapitulate, market transition theory predicts that the transition toward a market economy will result in a decline of the significance of redistributive power and political capital relative to market-based non-state economic actors, higher return to human capital than under a centrally planned economy, and new sources of economic advantage associated with entrepreneurship and hybrid/private sector employment (see Table 1). Patterns predicted by the state-centered approach are likely to be observed as well, but only within certain institutional contexts. The advantages of political capital for material gain will diminish relative to human capital the more the institutional foundation of a market economy has displaced the old institutional order and the longer a market economy has been expanding in size and scope.<sup>30</sup>

### **Local corporatist governance structures in China**

The emergence of regional market economies gives rise to new opportunity structures that cumulatively alter the mechanisms of stratification by reducing dependence on the state and improving incentives for economic performance.<sup>31</sup> However, continuous state interventions obviously play a key role in shaping and sustaining the transition to a market economy, from the creation of a new regulatory environment and changes in property rights, to building new market institutions and macroeconomic monetary and credit policies.

Table 1. Summary of empirical studies relevant to market transition theory

Study	Data				Findings			
	Nation	Population	Year	Dependent variables	Political capital	Human capital	Entrepreneurship	Private/hybrid sector
Szelenyi 1988	Hungary	Rural, whole nation	1982-1983	Agricultural goods	Mixed	Yes	-	-
Nee 1989	China	Rural, Fujian Province	1985	Income	Yes	Yes	Yes	-
Nee 1991	China	Rural, Fujian Province	1985	Income	Yes	-	Yes	-
Peng 1992	China	Urban & rural, selected areas	1986	Income	-	Yes	-	Yes
Rona-Tas 1994	Hungary	Urban & rural, whole nation	1989, 1991	Employment Income	Inconclusive*	Yes	-	-
Damanski and Heyns 1995	Poland	Urban & rural, whole nation	1987, 1991	Income	Yes	Yes	-	Inconclusive
Parish, Zhe and Li 1995	China	Rural, eastern 2/3 of China	1993	Employment Income	Mixed Yes	Yes Yes	-	- Yes
Nee 1996	China	Rural, whole nation	1989-1990	Employment Income	Mixed Yes	Yes No	- Yes	- -
Parish and Michelson 1996	China	Rural, whole nation	1988	Employment Income	Inconclusive# Inconclusive#	- -	- -	- -

Table 1. (Continued)

Study	Data				Findings			
	Nation	Population	Year	Dependent variable	Political capital	Human capital	Entrepreneurship	Private/hybrid sector
Xie and Hannum 1996	China	Urban, whole nation	1988	Income	Inconclusive <sup>#</sup>	Inconclusive <sup>#</sup>	-	-
Bian and Logan 1996	China	Urban, Tianjin	1988, 1993	Income	Yes*	Yes	-	Yes
Gerber and Hout 1998	Russia	Urban & rural, whole nation	1991-1995	Income	-	No	Yes	-
Brainerd 1998	Russia	Urban & rural, whole nation	1991-1994	Income	-	Yes	-	-
Cao and Nee 1999	China	Urban, two southern cities	1994-1995	Income	Yes	Yes	Yes	Yes
Zhou forthcoming	China	Urban, selected areas	1995	Income	Yes*	Yes*	-	Yes

Note: "Yes" means that the finding is consistent with market transition theory, "No" means inconsistent, and "-" means inapplicable. "\*" indicates that the finding reported here is based on our own interpretation of the results, which differs from the author's. "#" indicates that we disagree with the study's research design and hence regard the results as inconclusive.

In China, regional differences in state policy account for why the shift to markets has occurred at varying rates in different regions.<sup>32</sup> Because state policy encouraged foreign trade and lowered the barrier to entry of private enterprises in the southeastern maritime provinces of Guangdong and Fujian, these provinces were the first to experience a rapid growth of market institutions. The hybrid market economy that emerged in this region hence was the result of deliberate state intervention. Nonetheless, the predicted changes in the mechanisms of stratification arise from the extent to which a market economy has been instituted.<sup>33</sup>

State intervention and market forces interact with local conditions to give rise to different types of hybrid mixed economies; which in turn create *cascading effects*. Variations in local institutional arrangements influence the manner in which communities respond to state intervention and marketization. Such local contextual variables include the governance structure of rural enterprises and the strength of communal property rights. In China, local corporatist governance structures – often found in communities with a tradition of strong communal property rights – have played an important role in the economic development of the central coastal region of China, for example.<sup>34</sup>

Rural township and village enterprises dominate the industrial economy of the coastal corporatist region. Figure 2, based on field research in Jiangsu province in 1991 near Wuxi, provides a summary representation highlighting the characteristic feature of local corporatism in this region: *the strong role played by local government in the governance of the industrial economy*. Although the Jiangsu local corporatist governance structure is market-oriented, local government intervenes in both factor and product markets to assure that township- and village-owned firms have ready access to needed inputs and market outlets. Local government controls the allocation of land, labor, start-up capital, and key raw materials. The township industrial company established by government and staffed by its official serves as a board of directors overseeing the operations of collective-owned enterprises, and even directly micro-manages industrial firms.<sup>35</sup> The township enterprises we visited in the Jiangsu region manufactured products in sub-contractual arrangements with state-owned enterprises, mainly located in Shanghai. Although such arrangements have marketlike features, the influence of local government in the industrial economy is pervasive, from brokering and negotiating the terms of the agreements to appointing managers of collective-owned enterprises. Because its main source

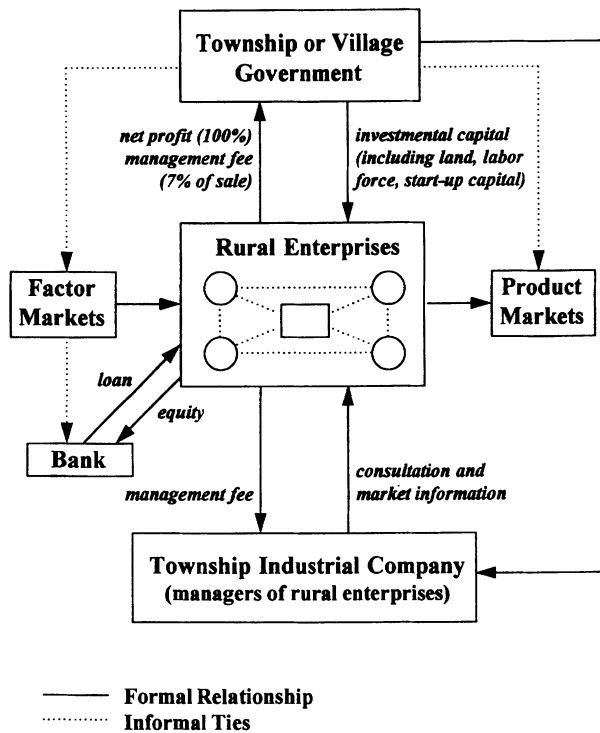


Figure 2. Local corporatism in Jiangsu Province.

of revenue is the profits derived from collective-owned enterprises, local government in the Jiangsu region intervenes to exercise competitive exclusion by restrictive regulation of private businesses – denying aspiring entrepreneurs business licenses, blocking access to factor resources, pressuring private businesses (often informally) to register legally as collective-owned firms, and limiting market access. In summary, the institutional environment of the strong form of local corporatism is shaped by strong communal property rights and a local state redistributive economy.

A study of a corporatist village in the rural county adjacent to the city of Tianjin provides an illuminating ethnographic case study of the strong form of local corporatism.<sup>36</sup> It describes the mechanisms through which the old cadre elite maintains their position of power and privilege, as Parish and Michelson put it, “not only despite, but because of marketization.”<sup>37</sup> The village is atypical insofar as it is reputedly the “richest village” in China. As a model village, its economic success might be attributed to special benefits conferred by higher

authorities. The village leadership moreover resisted the pressure to decollectivize, and instead persisted in maintaining collectivist institutional arrangements built during the Maoist era. It is one of the few villages where the local cadre elite successfully resisted implementation of the national policy of decollectivization.

The village government owns and operates all commercial and industrial firms, much like a multi-divisional corporation. Party control over all village enterprises is exercised through a board of trustees chaired by the party secretary who is also the head of the village government. Family members of the party secretary occupy top positions in the governance structure of village enterprises, together with family members from two other elite families. Although the formal ownership structure in the village is public, a kin-based network structure allows the cadre elite to acquire quasi-private rights over village enterprises. The cadre elite exercises their power primarily through patron-client ties, which is a characteristic feature of state socialism.<sup>38</sup> Paternalism is evident in the policy of discouraging married women from entering the industrial work force. The village party secretary, according to Nan Lin, “sees their place at home, taking care of the family, especially the child.”<sup>39</sup> In summary, this strong form of local corporatism documented in the study represents a hybrid property form in which the redistributive institution *not only remains intact, but also has successfully adapted* to the economic reform.

In our assessment, the case study highlights the importance of *property rights* as the *institutional mechanism* determining the extent of path dependence in the transition from state socialism. In the absence of change in the structure of property rights, non-market and quasi-market exchange continues to characterize economic transactions. Essentially the same institutional context is found in Zouping, a conservative county in Shandong province.<sup>40</sup> There too, *local state redistributive power* remains the dominant mechanism of resource allocation.

Figure 3 illustrates a weaker form of local corporatism, more common in the southeastern coastal region. It is based on field research in Fujian province in 1991 in the “golden triangle” area near Xiamen and Zhangzhou cities. By contrast to the strong form of local corporatism found in Jiangsu, the Fujian local corporatist governance structure coexists with private businesses that frequently have secured a *critical mass*. Factor and product markets in this weaker form of local corporatism are not directly under government control. Collective-owned

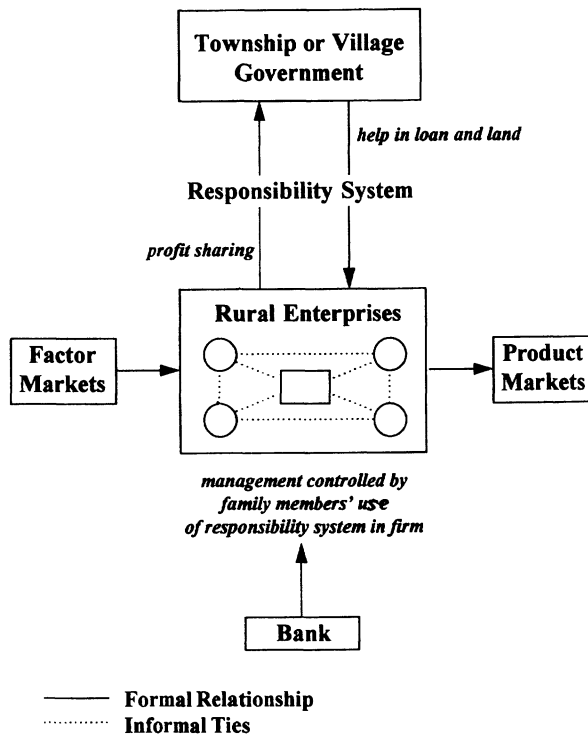


Figure 3. Local corporatism in Fujian Province.

firms and assets (i.e., orchards, fishponds, and factories) are leased in long-term “responsibility” contracts to private operators. These contracts are in some ways similar to sharecropping insofar as the private operator agrees *ex ante* to a profit-sharing arrangement with local government. In this weaker form of local corporatism, local government does not play a strong role in overseeing industrial development, but instead collects rents from privately operated businesses. This governance structure, combined with a stronger role played by family-owned businesses in the local economy, gives rise to and sustains a more laissez-faire institutional environment. Communal property rights in this region are weaker than in Wuxi area as a result. Together, Figures 2 and 3 show the variations in governance structures and the strength of communal property rights even within the same institutional arrangement of township- or village-owned property.

During the course of our field research, local officials in Fujian’s “golden triangle” region emphasized to us the importance of attracting overseas Chinese investments and joint-venture projects for the economic devel-



opment of their region. Township governments with a long history of overseas migration were well experienced in dealing with overseas Chinese businessmen. In a number of townships and in the county town, joint-ventures were operated by managers sent by the parent firm in Hong Kong. Common in the region were enterprises operated by private entrepreneurs that subcontracted production from urban factories. These firms produced parts or assembled finished products for the city-based state-owned enterprise. In addition to the light industrial firms, various private trading companies in the region specialized in an array of products including construction materials, agricultural products, and handicraft.

Township or village governments operated only a handful of the factories we visited in Fujian. These often were food-processing firms specializing in cash crops such as tea and herbal medicine. Local government was not engaged in oversight of public-owned factories to the same extent as in the strong corporatist region. Instead local officials often found themselves arbitrating disputes over property rights and economic transactions that involved private entrepreneurs and other villagers.<sup>41</sup> Villagers often did not understand that contracts issued by local governments for the use of public assets by private operators were legally binding agreements. In Fujian, in the early reform period, it was not uncommon for angry villagers to seize or destroy the entrepreneur's property in protests over perceived unfair business practices. These conflicts not only revealed the weak structure of private ownership even in the more commercialized region of China, but also highlighted the different roles of local government under the weak form of corporatism.

In the weak form of local corporatism, local government officials can secure advantages by leasing public assets to their friends and kinsmen. They may receive gifts and bribes for more favorable treatment by private entrepreneurs. They may pressure private entrepreneurs to hire family members, serve up lavish banquets, or contribute more to pet local government projects. But unlike local governments in the strong corporatist region, local officials in Fujian whom we talked with were not involved in managing industrial firms.

Institutional transformation in response to changing relative prices may eventually initiate a transition away from the strong form of local corporatism.<sup>42</sup> Jean Oi's study of institutional change in Zouping, a conservative county in Shandong province, illustrates this process.<sup>43</sup> In

the early 1990s, increasing market competition from outside the county negatively affected the profitability of collectively owned enterprises operated by local government. In response to this *parameter shift*, in which loss-making collective firms diminished the county's revenue base, local officials responded by leasing some collective-owned enterprises to private individuals. In place of their earlier practice of discriminating against private entrepreneurs, they started to encourage the development of the private sector, which they believed would increase tax revenues. Oi's description of the early stages of market transition in Zouping, in our view, confirms the utility of the market transition framework, which emphasizes the importance of broad parameter shifts in the institutional environment in reshaping incentives for political and economic actors.<sup>44</sup>

#### *Cluster analysis of property forms in the Chinese industrial economy*

The differences in institutional environment encountered through qualitative field research in the ethnographic studies reported above are confirmed quantitatively by cluster analysis of the relative proportion of annual industrial output over three years (1987 to 1989) produced by competing property forms, using provincial-level data.<sup>45</sup> All three property forms in the Chinese industrial economy – state-owned enterprises, collective-owned firms and private enterprises – are brought into the analysis, providing a direct measure of the structure of property rights in a province. The cluster analysis does not presume a pure form economy, but *hybrid mixed economies* in which state-owned firms still represent a major force in the industrial economy. Including the relative size of state-owned enterprises is important because a significant proportion of nonfarm workers has migrated from villages to county towns and cities. The cluster analysis takes into account the change in the relative size of the market-dependent component of the industrial economy. Private firms rely entirely on factor and product markets. Nonstate township and village enterprises are market-dependent even though they are more likely than private firms to benefit from quasi-market arrangements in which local government plays a major role. Both forms of nonstate market dependent firms are predominantly rural in location. These firms provide the principal sources of nonfarm employment for rural people. *Where nonstate firms account for the dominant share of the industrial output, a market-oriented industrial economy is likely to have emerged in the province.* Note that the resulting measure of the extent to which a

market-oriented economy has emerged does not assume uniformity, as does, by contrast, the ideal-type “capitalist-oriented economy” which Ivan Szelenyi and Eric Kostello coined to classify the economies of Eastern Europe after 1989.<sup>46</sup>

The cluster analysis confirms the existence of distinct types of provincial mixed economies in China after a decade of market reform.<sup>47</sup> Only in the more laissez-faire coastal and the predominately corporatist sub-regions do market-oriented industrial firms account for more industrial output than state-owned enterprises. In the coastal corporatist provinces, the dominant property form is the firm owned by local government, giving rise to strong communal property rights and local corporatist governance over firms. This is illustrated by Figure 2. The relative size of the industrial output produced by private firms is substantially larger in the more laissez-faire southeastern coastal provinces than anywhere else in the country. In this sub-region, communal property rights are weaker and the governance of firms encompasses a more diverse mix, with private and hybrid governance structures more common than in other regions. This is illustrated by Figure 3. Nonetheless, even in this marketized region, state and local corporatist firms, all publicly owned property forms, remain dominant.

### **Hypotheses and empirical evidence**

The market transition conceptual framework entails a *multilevel* causal model: provincial mixed economy  $\Rightarrow$  county institutional environment  $\Rightarrow$  household. The roles of central state intervention and institutional arrangements stemming from provincial and local variation in the structure of property rights and governance structure are fully incorporated.

Table 1 compares results from fifteen empirical studies that have relevance for the main hypotheses advanced by market transition theory.<sup>48</sup> Studies reporting negative findings require further attention because they identify unresolved controversy with respect to the theory’s verification.<sup>49</sup>

In general, three of the four hypotheses have been widely confirmed. The last two columns of Table 1 demonstrate remarkable empirical consensus on market transition theory’s prediction of the emerging opportunity structure centered on private/hybrid sector and entrepre-

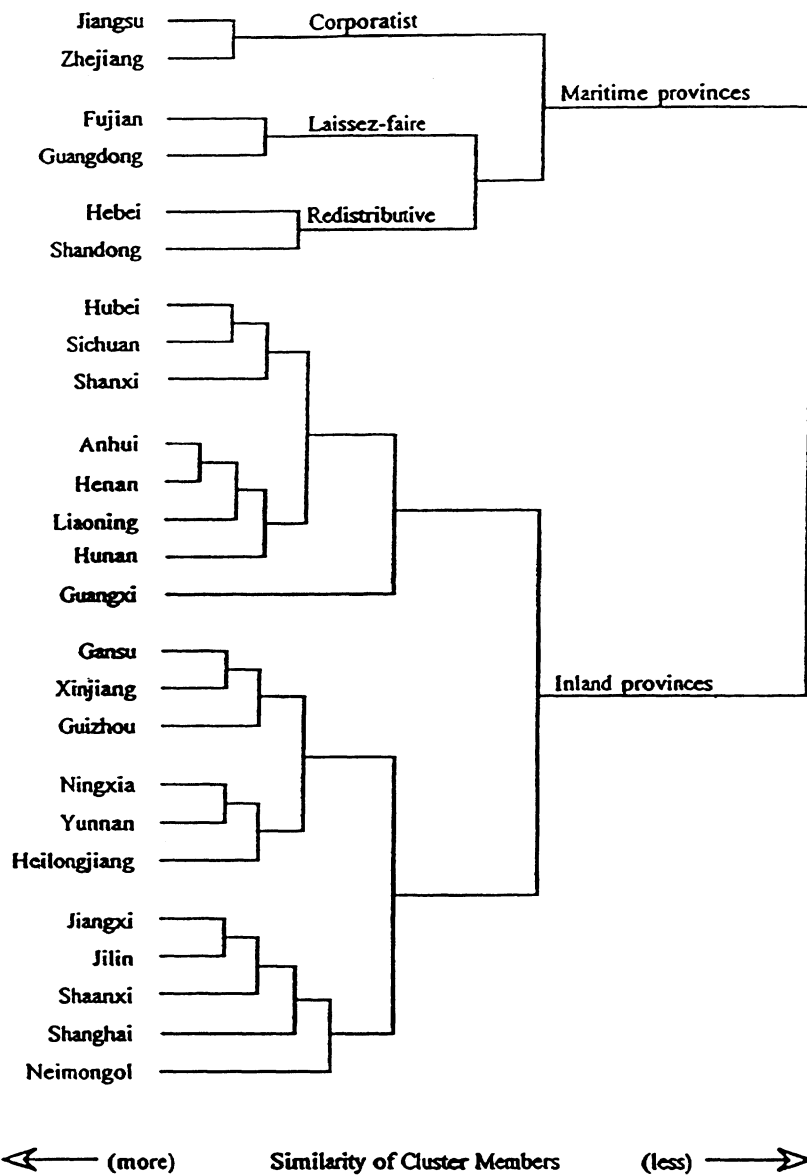


Figure 4. Dendrogram from complete linkage cluster analysis of provincial industrial production, 1987–1989, by state, collective, and private ownership.

neurship. Evidence for the improved earning returns to human capital and productivity is overwhelmingly positive. Education was among the few exceptions that Xie and Hannum found not to have the predicted effect on income in Chinese cities experiencing rapid economic growth.<sup>50</sup>

This is a finding not associated causally with the shift to reliance on markets; hence it is not a negative finding. For this reason we list it as inconclusive despite being interpreted otherwise by the authors. In their study of income determination in postsocialist Russia, Gerber and Hout reported that return to education did not increase over time,<sup>51</sup> although this finding was not replicated by Brainerd, employing very similar data and research design.<sup>52</sup> Overall, the empirical evidence in support of increasing importance of human capital, entrepreneurship, and private/hybrid sector employment following the shift to a market economy has been consistent enough so that there is little controversy with respect to these hypotheses.

However, results from tests of the declining-significance-of-redistributive-power hypotheses are mixed. Clearly, there is more controversy with respect to the effect of marketization on the income returns of positional power of the communist elite. Bian and Logan's study,<sup>53</sup> based on data from Tianjin, a northern industrial city slow in making headway in market reform, reports persistence of cadre privileges, but shows evidence consistent with the declining-significance-of-redistributive-power hypothesis in the newly emergent market sector. As we noted earlier, the Xie and Hannum study uses industrial growth as a proxy for marketization,<sup>54</sup> which renders their test inconclusive.<sup>55</sup> Elsewhere we discuss the disputed findings on political capital reported in Table 1 and argue that they stem more from misconception than empirical findings that contradict the prediction of relative decline in the significance of redistributive power.<sup>56</sup>

As social science research confronts the challenge of path dependence and the problem of multiple equilibria, replication studies become all the more important. Replication studies are widely practiced in the physical sciences. They contribute to reliability in theoretical findings. They help resolve debate over a theory by empirical means. We focus below on a replication of Nee's work, employing a different, but comparable, data set from rural China.<sup>57</sup> This replication study leads us to reanalyze the same data used by Parish and Michelson, who reported a negative test of the declining-significance-of-redistributive-power hypothesis. However, although part of our original purpose was to resolve conflicting claims on empirical grounds, the main relevance of this analysis here is its contribution to understanding the link between local governance structure/property rights and path dependent societal transformation.

### *Data and research design*

We employ the Chinese Household Income Project (CHIP) data set collected by a World Bank funded study in 1988.<sup>58</sup> A national representative sample of 10,258 households and 51,352 individuals was drawn from rural China. Below we focus on regression results and their theoretical implications. Readers interested in the technical aspects of the analysis can find a detailed account of the modeling procedures in the appendix. However, it should be noted here that since Parish and Michelson made analytic choices with which we do not agree, our analysis is not an exact replication, but instead intended to produce empirical evidence most informative in our judgment.

Our model specification is built upon the cluster analysis discussed earlier. We divide the sample into four sub-samples according to the four regions identified by the cluster analysis (Figure 4) and conduct separate tests. These four regions are labeled as inland, coastal redistributive, coastal corporatist, and coastal laissez-faire, respectively. Our primary interest in regional comparison is to understand how institutional changes, specifically, the development of different mixes of property forms and governance structure, transform the preexisting social stratification order.

### *Results and discussion*

Table 2, derived from our income analysis, compares the earning advantages associated with different occupations of nonfarm employment. Numbers in the cells indicate estimated ratios between nonfarm laborers and farmers' contribution to household income.<sup>59</sup> It shows that in general the cadre group still maintains considerable advantage over ordinary farmers. For the nation as a whole, cadres in village or township governments on average enjoy income three times as much as farmers, net of the effects of age and education. The gap is especially wide in the coastal corporatist region, where an average cadre's income is more than the sum of that of four farmers. However, in all the four regions, nonfarm workers in other occupation categories, i.e., managers, technical and manual workers, and entrepreneurs, have started to challenge the dominant position of local cadres, and some of these nonfarm occupations can be even more lucrative than the cadres. Overall, Table 2 depicts a highly heterogeneous economic elite group in all four regions in rural China, which contrasts cadres' exclusive

Table 2. Income ratio between nonfarm employment and farming in rural China, 1988

Type of nonfarm employment	Sub-regions in the coastal area				
	Inland	Redistributive	Corporatist	Laissez-faire	Whole nation
Village/township cadre	3.0	1.9	4.4	3.2	3.0
Manager	–	–	–	11.4	–
Technical worker	3.6	2.9	2.9	–	2.9
Entrepreneur/self-employed	2.4	3.8	3.9	–	2.8
Manual worker	1.9	2.0	2.3	3.0	2.3

Note: Numbers in this table indicate ratios between nonfarm laborers and farmers' contribution to household income. They are calculated from statistically significant coefficients in multivariate hierarchical models, controlling for household characteristics such as age and education of the laborers and county-level contextual variables.

advantage in the pre-reform era. Despite the variations in regional institutional environments documented in our field research, these results suggest that income distributions in the four regions are largely similar.

Our main findings come from occupation analysis (see Table 3). Given the importance of nonfarm employment in determining income, as shown above, we focus on the effects of cadre connection on occupational attainment. Specifically, we examine to what extent cadre connection increases one's chance to acquire jobs in the following occupational categories: manager and technical worker, cadre and clerical worker in local government, entrepreneur/self-employed, and manual worker. Cadre connection is defined as having one or more village or township administrators in the household.

Although for the nation as a whole cadre connection provides considerable advantage in obtaining employment in all four occupational categories (Table 3, last column), Table 3 reveals striking variations across regions. In the inland area, cadre connection increases the odds of becoming entrepreneurs and manual workers by about two-and-a-half times, while it has no effects on the other two occupational categories. In the coastal redistributive region, only the opportunity for entrepreneurship is significantly related to cadre connection. Furthermore, in the coastal laissez-faire region, where collective ownership has been losing ground to private ownership and the weaker form of local corporatism tends to prevail, cadre connection confers no

Table 3. Effects of cadre connection on odds of obtaining nonfarm employment in rural China, 1988

Type of nonfarm employment	Sub-regions in the coastal area				
	Inland	Redistributive	Corporatist	Laissez-faire	Whole nation
Cadre/clerical worker	–	–	13.6	–	1.9
Manager/technical worker	–	–	12.6	–	2.6
Entrepreneur/self-employed	2.4	3.1	8.3	–	2.7
Manual worker	2.5	–	2.6	–	1.7

Note: “–” means that cadre connection has no effect on the odds of obtaining nonfarm employment. Numbers in the table indicate by how many times, based on our estimates, cadre connection increases the odds. These results are derived from multinomial logistic regression models with farmer as the reference group. Other control variables include gender, age, age-squared, education, and county level contextual variables.

advantage at all in competition for any of the four nonfarm occupations. This result is consistent with both market transition theory’s prediction and the findings reported by Nee in 1996 based on a different data set.

Standing in sharp contrast is the coastal corporatist region, *where cadre connection improves the chances of entering all the four nonfarm occupations, and the magnitudes of the effects are substantially greater than in other regions.* The pattern uncovered here confirms the path dependent transformation illustrated in Figure 2. In the corporatist region, strong communal property rights and local government management of township and village firms provide a continuing economic basis for cadre power. Households of the administrative elite enjoy nearly exclusive access to the most influential or lucrative nonfarm jobs, sustaining both political and economic advantages that create even stronger vested interests in the status quo. This pattern of persistent or even possibly multiplied cadre advantage was not found in Nee’s analysis, although it does confirm the utility of our multi-level causal model that incorporates the changing structure of property rights in the industrial economy as a basis to identify the kinds of mixed economies emerging in China. As noted earlier, local government-owned industrial firms dominate the industrial economies of the coastal corporatist provinces.



We interpret the results in the coastal corporatist region as a strong confirmation of power persistence in path dependent institutional change. Our finding highlights the importance of governance structures and property rights. In particular, it confirms that the persistent dominance of public ownership and government control over industry serve as the institutional basis to perpetuate cadres' advantage, and the preexisting stratification order thus remains largely unchanged. The corporatist region shows that without resorting to blatant power-based privatization, the local communist elite can still adapt flexibly to a more market-oriented institutional environment.<sup>60</sup> By maintaining barriers to entry for private entrepreneurs and intervening in factor and product quasi-markets, the strong form of local corporatism is able to foster the growth of collective-owned firms in competition with state-owned and private firms. But should the local corporatist region be viewed as a type of market economy? We think it is more accurate to view it as a market-oriented mixed economy controlled by local governments. This classification takes into account the extent to which local corporatism rests on quasi-markets and government imposed barriers to entry for private firms.<sup>61</sup>

Should the pattern found in the corporatist region diffuse to other regions not only despite but because of marketization, then the state-centered approach is correct in emphasizing the significance of the new basis of cadre power in rural industry as the dominant pattern of societal transformation.<sup>62</sup> This pattern is consistent with the power-persistence hypothesis, although the continuing advantage of the old political elite in rural China is not due to the technocrats' expertise (as observed in Hungary<sup>63</sup>), but is instead perpetuated by the dominance of rural collective industry and corporatist governance structure. On the other hand, it is possible that the diffusion of the more laissez-faire institutional environment of southeastern maritime provinces may eventually lead to a progressive path dependent devolution toward the weaker form of corporatist arrangement, as already evident in the Wenzhou area.<sup>64</sup> During the 1991 field research, local administrators in the corporatist region of Wuxi were quick to voice their anxiety over the growing competitive threat of a rapid expansion of the private economy. Already, a growing number of factory managers in the Wuxi area were setting up private enterprises, nominally run by relatives, or leaving the region to seek their fortune in the more laissez-faire southeastern provinces. Despite generous bonuses, the relative earnings returns of managers in the coastal corporatist and redistributive regions were substantially less than those of managers in the more laissez-faire

region. Hence, one cannot rule out the possibility of a path dependent transition from the strong form to the weaker form of local corporatism illustrated in Figure 3, especially if barriers to entry for private firms are lowered in the corporatist region for whatever reason.

Do the findings reported in the reanalysis of Parish and Michelson's study conform to the prediction of market transition theory? Earlier we restated the original formulation, arguing that persistence would be more pronounced in less commercialized inland provinces and under corporatist governance structures, while change would be evident in areas where a market economy is emergent. Among the results reported in Table 3, the contrast between the continuing significance of the power of local officials in the inland and corporatist provinces, and its decline in the more *laissez-faire* provinces most clearly conform to this prediction. Overall, we show that although the cadre advantage still exists relative to *ordinary farmers*, rural households are presented with the possibility of getting ahead by entering nonfarm occupations. We see in the more marketized coastal provinces evidence showing that, regardless of their political connections and background, rural laborers face equal chances in competing for lucrative nonfarm occupations. In a relatively more marketized environment, local administrators can exercise little influence on the allocation of nonfarm jobs. These results convey a substantially different comparative picture of earning returns to administrators and nonfarm workers from that reported by Parish and Michelson.

Notwithstanding, our replication study using the CHIP data set shows that the local administrative elite still derive a net income advantage in all regions of China, even though relative to other nonfarm occupations – technical workers, managers, and entrepreneurs – the income gap narrows. By contrast, Nee's analysis of the CCO data showed no net advantage to positional power in the coastal *laissez-faire* and redistributive provinces.<sup>65</sup> Part of the difference may be attributed to the difference between analysis of *current* income and *change* in income during the first decade of rural reform. Although positional power obtains advantages in current time, analyses of change in income for different social groups suggests that over time cadre advantages are likely to attenuate relative to other nonfarm occupations: especially entrepreneurs, managers, and technical workers. Nonetheless, *cadre advantage persisting in all regions of China confirms the power persistence hypothesis, especially in light of persistent cadre advantage in nonwage benefits.*<sup>66</sup> This is not a negative finding, however, if nonstate

economic actors achieve substantively greater social mobility than the administrative elite. In an emergent market economy, as alternative pathways to social mobility open up in the labor markets for nonfarm jobs, increasingly profit and gain are likely to stem from entrepreneurial activity and investment in human capital rather than only from bureaucratic office-holding.

## **Conclusion**

The emergence of markets is intrinsically a decentralized process, involving countless actions of actors engaged in decentralized exchanges. Market-induced change consequently is inherently path dependent. Where property rights in the industrial economy remain under public ownership, where local governments play an active role in overseeing market-oriented economic growth and exercise competitive exclusion over private firms, as in the coastal corporatist region, our findings show that continuity in the stratification order is most pronounced. In the more marketized southeastern coastal provinces where private firms have made the greatest inroads in the industrial economy, the emergent stratification order differs the most from the less marketized inland region. In the *laissez-faire* provinces we found the absence of administrator influence in the attainment of nonfarm occupations. These findings point to the importance of an emergent market economy and change in the structure of property rights in altering the mechanisms of stratification in postsocialist societies.

In studying changes in the stratification order in postsocialist societies, researchers clearly need to incorporate the path dependent features of institutional change. Principally this entails greater sensitivity to how core features of the pre-existing institutional framework persist despite apparent disjunction. Our findings confirm the prediction that path dependence in the stratification order is more pronounced in regions and sectors of the transition economy dominated by public-ownership forms and quasi-markets. More discontinuous but nonetheless still path dependent change, on the other hand, is evident in regions and sectors characterized by mixed economies in which market institutions and private property forms have made the greatest inroads. What may appear initially to be conflicting hypotheses may indeed be explaining different parts of a complex societal transformation characterized by multiple equilibria. Our analysis shows that different types of hybrid mixed economies may be emerging in China. This is also apparent in

the transitions from state socialism in Eastern Europe.<sup>67</sup> Because of this, a research strategy that employs a multi-level causal model encompassing all three institutional domains (as outlined in Figure 1) should be extended to future studies. We support the growing interest in specifying better the institutional environment of market transition. In this respect, the market transition debate has been both constructive and fruitful.

### **Appendix: Technical report on data analysis**

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Our empirical analysis consists of two parts: replication of Parish and Michelson's study<sup>68</sup> and re-analysis of the same data, using modified research design and variable specifications. This technical report details the analytical procedures and reasons behind our modifications.

In their attempt to replicate Nee's study,<sup>69</sup> Parish and Michelson employed data from the Chinese Household Income Project (CHIP) to examine the income distribution and nonfarm employment in rural China. Both the CHIP data and the China-Cornell-Oxford data used by Nee were collected in the late 1980s after more than a decade of market reform in rural China. Both provide multi-level information involving large-scale national surveys: CHIP (1988: 9,062 households) and CCO (1989–1990: 7,950 households).<sup>70</sup> The CCO data set, however, has township and village level contextual variables and longitudinal data absent from the CHIP data set. Because the data sets are otherwise so comparable, the nearly diametrically opposed findings of these empirical tests require careful attention.

In order to assess the reliability of these studies, we first replicated Parish and Michelson's analysis, using the same CHIP data set and following their variable specifications. Although we were able to reproduce their results, the process uncovered a number of procedures that we contest, the most important of which is their county classification scheme.

Parish and Michelson relied exclusively on county-level information, i.e., overall nonfarm employment rate and the relative size of nonfarm employment in collective and private sectors, to operationalize the variations in the institutional environments that Nee identified. As we have noted earlier, ignoring the shift to a market economy on the provincial level is highly problematic because a market economy is *more* than a county-level phenomenon.<sup>71</sup> Counties in the inland region, including those with a higher proportion of nonfarm workers employed by private firms than in collective firms (which Parish and Michelson labeled as "coastal laissez-faire," reflecting a "back-into-the-future" pattern,<sup>72</sup> i.e., growth of the informal private sector due to the inability of collective firms

to absorb labor surplus) differ substantively from counties geographically located in the maritime provinces. The coastal region not only experienced local marketization, but also underwent rapid incorporation into the global market economy in the 1980s through foreign investments and trade.<sup>73</sup> Especially so in the “laissez-faire” provinces of southeastern China: there the interaction between local and global market penetration combined to create a more mature market environment.

Parish and Michelson’s classificatory adjustment resulted in 26 percent of the counties in CHIP data being placed in categories inconsistent with Nee’s original scheme. Due to such a significant difference in research design, we believe that results from these two studies are not comparable.

Two other problems with the Parish and Michelson analysis are also noteworthy. First, they coded peasants who reported part-time secondary nonfarm employment as belonging to the nonfarm worker category. Peasants traditionally have left farms to seek seasonal nonfarm work – as itinerant craftsmen, peddlers, construction workers – during the winter slack season. Such part-time employment differs substantively from full-time employment in the nonfarm labor market, a category identified in the Griffin and Zhao survey. This coding resulted in a serious downward biasing of the earnings reported by nonfarm workers, as well as an additional 5 percent of the counties being misplaced in the regional classification. Second, while Parish and Michelson differentiated between occupational categories among nonfarm workers in their analysis of the effect of cadre connection on obtaining nonfarm employment, their income analysis collapsed all categories of nonfarm workers into one, which was then compared with local administrators. This decision led to a misleading comparison between earning returns of nonfarm workers and administrators. Nonfarm workers in the higher occupational groups that were most likely to challenge the administrative elite were given less weight, while manual workers, a category that included peasants reporting seasonal nonfarm work, were weighted more heavily.

After reproducing Parish and Michelson’s findings, we re-analyze the CHIP data using modified research design and variable specifications. We first exclude observations from the three municipalities under the direct jurisdiction of the central government (*zhi xia shi*). Careful examination of the data reveals that these three cities are extreme cases in terms of rural industrialization and/or urban proximity, as the nonfarm employment rates in Beijing, Shanghai, and Tianjin reach 46 percent, 66 percent, and 42 percent, respectively, compared with less than 12 percent for the nation.<sup>74</sup> Data from the four provinces that are either unidentifiable or have very few households are discarded. To obtain reliable estimates for local contextual factors, we also exclude counties with fewer than 15 households. After deleting cases with missing values, we obtain a sample of 9,143 households for the income analysis, and 26,433 individuals for the occupational analysis.

The unit of analysis in our income regressions is household. The dependent variable is specified in two forms: total household income in 1988 and its natural log. Household income variable in the CHIP data is a composite measure that combines individual members' wages, pensions, and other compensations, household income from rural enterprises, gross value of self-consumed farm products, rental value of housing, and so on. This measure is preferable compared with individual income because in rural China household is the basic unit of economic activity, and for a majority of the households it is even impossible to separate out each member's contribution. The econometric model that we employ is a mixed model, which allows county-level random effects and is especially suitable to multi-level analysis.<sup>75</sup> Restricted maximum likelihood (REML) method is used in model estimation.

Based on the results from the cluster analysis, we partition the national sample into four regional sub-samples. In order to capture *local* variations in the institutional environment, we include in our regression model the percentages of labor force employed in collective and private sectors in the county. In other words, *we retain Parish and Michelson's emphasis on county-level variation, while we include a measure for the extent to which a provincial market economy has emerged.* In addition, we use logged median household income of the county to control for the effect of economic development.<sup>76</sup>

Characteristics of laborers in each household are measured by the following variables: gender composition (percentage female), average age, average-age squared, average education (years of schooling), average-education squared, total number of laborers, and numbers of county government officials, township and village cadres, managers, technical workers, entrepreneurs, and manual workers in the household. Unlike in Parish and Michelson, we use the occupation of the primary job to define nonfarm workers. Since the total number of laborers is controlled for, coefficients for the number of workers in nonfarm occupations indicate the income gaps between nonfarm workers and ordinary farmers.

Results based on the two dependent variable specifications are qualitatively the same. We choose to present those from using unlogged household income because the regression coefficients are both methodologically sound and easy to interpret. That is, given variable household size, it is more sensible to consider that one additional laborer increases household income by a certain amount, rather than by a certain percentage.

Following Parish and Michelson, we then conduct multinomial logistic regression to examine the effect of cadre connection on obtaining nonfarm employment. As in the income analysis, we locate counties in geographic regions identified by the cluster analysis, and define nonfarm employment according to the occupation of the primary job. For households with more than one cadre, we code all members but the oldest cadre as having a cadre connection

in order to avoid biased estimates of cadre relatives' advantage in obtaining administrative positions. For instance, if in a household both the father and son are cadres, it is reasonable to assume that the son might have benefited from his father's cadre status in acquiring the job, but not *vice versa*. Other independent variables included in our model are age, age squared, gender, education, logged county median household income, and percentages of labor force employed in collective and private sectors in the county. Numbers presented in Table 3 are relative risk ratios, indicating by how many times cadre connection increases the odds of acquiring nonfarm job in the respective occupations.

Two statistical softwares, SAS and LIMDEP, are used in computation. All regression results and programs are available upon request.

## Notes

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reinforcing dynamic systems with local positive feedback were observed to possess a multiplicity of emergent structures. Initial starting states in combination with early random events pushed the dynamics to lock into one of the possible emergent states. In extending the idea to economics, Brian Arthur ("Self-Reinforcing Mechanisms in Economics," in P. Anderson, K. Arrow, and D. Pines, editors, *The Economy as an Evolving Complex System*, Redwood City: Addison-Wesley Co., 1988) identified corresponding systems in economic life with similar characteristic dynamics: 1) multiple equilibria in which more than one emergent structure is possible; 2) the possibility of inefficient solutions in which a better technology fails to win market share due to "bad luck" in the early phase of product competition; 3) lock-in to the inefficient solution, making exit difficult; 4) and the consequence of small events and chance in the early stages determining which solution prevails in competitive markets.

10. Douglas North, *Institutions, Institutional Change, and Economic Performance* (Cambridge: Cambridge University Press, 1990).
11. Paul DiMaggio and Walter Powell, "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields," *American Sociological Review* 48 (1983): 147–160.
12. Neil Fligstein, "The Economic Sociology of the Transition From Socialism," *American Journal of Sociology* 101 (1996): 1075.
13. Karl Polanyi, *The Great Transformation* (New York: Rinehart, 1944).
14. Randall Collins, "Weber's Last Theory of Capitalism: A Systematization," *American Sociological Review* 45 (1980): 925–942.
15. David Stark, "Recombinant Property in East European Capitalism," *American Journal of Sociology* 101 (1996): 993–1027.
16. Douglas North, *Structure and Change in Economic History* (New York: 1981).
17. As David Stark has maintained in "Path Dependence and Privatization Strategies in East Central Europe," *East European Politics and Societies* 6 (1992): 17–54.
18. Victor Nee, "Organizational Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China," *Administrative Science Quarterly* 37 (1992): 1–27; Andrew Walder, "Local Governments as Industrial Firms: An Organizational Analysis of China's Transitional Economy," *American Journal of Sociology* 87 (1995): 517–547; David Stark, "Recombinant Property in East European Capitalism," *American Journal of Sociology* 101 (1996): 993–1027; Victor Nee and Si-jin Su, "Institutional Foundations of Robust Economic Performance: Public-Sector Industrial Growth in China," in Jeffrey Henderson, editor, *Industrial Transformation in Eastern Europe in Light of the East Asian Experience* (London: MacMillan, 1998).
19. Akos Rona-Tas, "The First Shall Be Last? Entrepreneurship and Communist Cadres in the Transition from Socialism," *American Journal of Sociology* 100 (1994): 40–69.
20. Victor Nee and Peng Lian, "Sleeping with the Enemy: A Dynamic Model of Declining Political Commitment in State Socialism," *Theory and Society* 23 (1994): 253–296. Andrew Walder, "The Decline of Communist Power: Elements of a Theory of Institutional Change," *Theory and Society* 23 (1994): 297–323.
21. Ivan Szelenyi and Robert Manchin, "Social Policy under State Socialism," in G. Esping-Anderson, L. Rainwater, and M. Rein, editors, *Stagnation and Renewal in Social Policy* (White Plains, NY: M.E. Sharpe, 1987), 102–139; Victor Nee, "Social Inequalities in Reforming State Socialism: Between Redistribution and Markets in China," *American Sociological Review* 56 (1991): 663–682; Yanjie Bian and John Logan, "Market Transition and the Persistence of Power: The Changing Stratification System in Urban China," *American Sociological Review* 61 (1996): 739–758.

22. Jadwiga Staniszkis, *The Dynamics of the Breakthrough in Eastern Europe* (Berkeley and Los Angeles: University of California Press, 1991); Elemer Hankiss, *East European Alternatives* (Oxford: Clarendon Press, 1990); Akos Rona-Tas, "The First Shall Be Last: Entrepreneurship and Communist Cadres in the Transition From Socialism," *American Journal of Sociology* 100 (1994): 40–69.
23. *Ibid.*, 19.
24. Victor Nee, "A Theory of Market Transition: From Redistribution to Markets in State Socialism," *American Sociological Review* 54 (1989): 663–681.
25. *Ibid.*, 24, 667.
26. The society-centered approach has contributed important ethnographic accounts of how social networks are employed by the political and economic elite to secure property rights over productive assets in the transition economy. Notable examples include Nan Lin's study of local corporatism in rural China and David Stark's study of interfirm networks in Hungary cited in note 5. Although neither studies proffered testable hypotheses, they documented the importance of network ties in the transition economy for both political and corporate actors.
27. We are indebted to Paul DiMaggio for comments that outlined many of the points made in this paragraph.
28. Mark Granovetter, "Economic Action and Social Structure: The Problem of Embeddedness," *American Journal of Sociology* 91 (1985): 481–510.
29. See Theodore Gerber, "Membership Benefits or Selection Effects? Why Former Communist Party Members Do Better in Post-Soviet Russia," *Social-Science Research*, forthcoming.
30. The rampant practice of non-market exchange (barter and redistribution) and the prolonged and severe economic depression in the former Soviet Union render tests of market transition theory inconclusive, at least until the Russian economy has recovered from its economic depression. Theodore Gerber and Michael Hout, "More Shock than Therapy: Market Transition, Employment, and Income in Russia, 1991–1995," *American Journal of Sociology* 104 (1998): 1–50.
31. In making predictions about the effect of the emergence of a market economy on stratification, market transition theory is not addressing local markets. If local market arrangements are located in a regional setting dominated by a state-controlled economy, they are likely to remain subordinated to state actors. Even under Mao there were local markets to some extent. In Eastern Europe and the former Soviet Union, local markets flourished as second economies. (See, Istvan Gabor, "The Second (Secondary) Economy," *Acta Oeconomica* 22 (1979): 291–311). The emergence of a market economy entails regional development accompanied by broader changes in the institutional environment. This is why we believe that in empirical research, market emergence cannot be adequately measured by local level contextual variables, as in Parish and Michelson's research design.
32. Yu Xie and Emily Hannum, "Regional Variation in Earnings Inequality in Reform-Era Urban China," *American Journal of Sociology* 101 (1996): 950–992.
33. *Ibid.*, 24. The first test of market transition hypotheses employed a sample drawn from this region.
34. Elinor Ostrom, *Governing the Commons* (Cambridge: Cambridge University Press, 1990).
35. Jean Oi, "The Fate of the Collective after the Commune," in D. Davis and E. Vogel, editors, *Chinese Society on the Eve of Tiananmen* (Cambridge: Council on East Asia Studies, 1990), 15–30.

36. Nan Lin, "Local Market Socialism: Local Corporatism in Action in Rural China," *Theory and Society* 24/3 (1995): 301–354.
37. William Parish and Ethan Michelson, "Politics and Markets: Dual Transformations," *American Journal of Sociology* 101 (1996): 1045.
38. Andrew Walder, *Communist Neo-Traditionalism* (Berkeley: University of California Press, 1986).
39. *Ibid.*, 36, 329.
40. Jean Oi, "The Evolution of Local State Corporatism," in Andrew Walder, editor, *Zouping in Transition* (Cambridge: Harvard University Press, 1998), 35–61. Township and village governments furnished the capital and entrepreneurship to start up new collectively owned industrial ventures, often redistributing resources from profitable firms to support start-up firms. They redistribute resources directly from villagers to raise capital for rural industry. They guarantee loans from outside lending agencies to support local industrial growth. In Zouping, even the county government is involved in supervising local economic development and in the allocation of investments to support collectively owned firms through selective investments and influence over loans from banks.
41. Thomas Lyons, "Economic Reform in Fujian: Another View from the Villages," in *The Economic Transformation of South China: Reform & Development in the Post-Mao Era*, edited by Thomas Lyons and Victor Nee (Ithaca, NY: Cornell East Asia Series, 1994), 141–168.
42. Victor Nee, "Organized Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China," *Administrative Science Quarterly* 37 (1992): 1–27.
43. Jean Oi, "The Evolution of Local State Corporatism," 35–61 in Andrew Walder, editor, *Zouping in Transition* (Cambridge: Harvard University Press, 1998), 54.
44. *Ibid.*, 35.
45. Victor Nee, "The Emergence of a Market Society: Changing Mechanisms of Stratification in China," *American Journal of Sociology* 101 (1996): 908–949.
46. Ivan Szelenyi and Eric Kostello, "The Economic Sociology of the Transitions from Socialism," *American Journal of Sociology* 101 (1996): 1082–1096. Their ideal-type underscores their view that the new capitalist orientation of Eastern European transition economies need not bring about capitalism.
47. *Ibid.*, 45.
48. Ivan Szelenyi, *Socialist Entrepreneurs* (Madison: University of Madison Press, 1988); Victor Nee, "A Theory of Market Transition: From Redistribution to Markets in State Socialism," *American Sociological Review* 54 (1989): 663–681; Victor Nee, "Social Inequalities in Reforming State Socialism: Between Redistribution and Markets in China," *American Sociological Review* 54 (1991): 267–282; Yusheng Peng, "Wage Determination in Rural and Urban China: A Comparison of Public and Private Industrial Sectors," *American Sociological Review* 57 (1992): 198–213; Akos Rona-Tas, "The First Shall Be Last? Entrepreneurship and Communist Cadres in the Transition from Socialism," *American Journal of Sociology* 100 (1994): 40–69; Henrik Domanski and Barbara Heyns, "Toward a Theory of the Role of the State in Market Transition: From Bargaining to Markets in Post-Communism," *European Journal of Sociology* 36 (1995): 317–351; William Parish, Xiaoye Zhe, and Fang Li, "Nonfarm Work and Marketization of the Chinese Countryside," *China Quarterly* 143 (1995): 697–730; Yanjie Bian and John Logan, "Market Transition and the Persistence of Power: The Changing Stratification System in Urban China," *American Sociological Review* 61 (1996): 739–758; Victor

- Nee, "The Emergence of a Market Society: Changing Mechanisms of Stratification in China," *American Journal of Sociology* 101 (1996): 908–949; William Parish and Ethan Michelson, "Politics and Markets: Dual Transformations," *American Journal of Sociology* 101 (1996): 1042–1059; Yu Xie and Emily Hannum, "Regional Variation in Earnings Inequality in Reform-Era Urban China," *American Journal of Sociology* 101 (1996): 950–992; Theodore Gerber and Michael Hout, "More Shock than Therapy: Market Transition, Employment, and Income in Russia, 1991–1995," *American Journal of Sociology* 104 (1998): 1–50; Elizabeth Brainerd, "Winners and Losers in Russia's Economic Transition," *American Economic Review* 88 (1998): 1094–1116; Yang Cao and Victor Nee, "Remaking Inequality: Market Dependency and Organizational Adaptation in Urban China," Working Paper (Ithaca: Department of Sociology, Cornell University, 1999); Xueguang Zhou, "Economic Transformation and Income Inequality in Urban China: Evidence from a Panel Data," *American Journal of Sociology* (forthcoming).
49. Several findings as summarized here are based on our own assessment of the results and may differ from the authors' conclusions either because we find the research design questionable or disagree with the result interpretation.
  50. *Ibid.*, 32.
  51. Theodore Gerber and Michael Hout, "More Shock than Therapy: Market Transition, Employment, and Income in Russia, 1991–1995," *American Journal of Sociology* 104 (1998): 1–50. For our assessment of Gerber and Hout's study, see Yang Cao and Victor Nee, "Market Transition Debate: Conceptual Clarification and Evidence," *American Journal of Sociology*, forthcoming.
  52. Elizabeth Brainerd, "Winners and Losers in Russia's Economic Transition," *American Economic Review* 88 (1998): 1094–1116.
  53. Yanjie Brian and John Logan, "Market Transition and the Persistence of Power: The Changing Stratification System in Urban China," *American Sociological Review* 61 (1996): 739–758.
  54. *Ibid.*, 32.
  55. William Parish and Ethan Michelson, "Politics and Markets: Dual Transformations," *American Journal of Sociology* 101 (1996): 1042–1059; Ivan Szelenyi and Eric Kostello, "The Market Transition Debate: Toward a Synthesis?" *American Journal of Sociology* 101 (1996): 1082–1096.
  56. Yang Cao and Victor Nee, "Market Transition Debate: Conceptual Clarification and Evidence," forthcoming, *American Journal of Sociology*. There, we point out that even though Rona-Tas's study showed that former cadres enjoyed a better chance to excel economically after the collapse of the state socialism in Hungary, the scale of the power conversion was far from enough to reproduce the political elite's monopoly over power and privilege. Bian and Logan's analysis of income inequality demonstrated convincingly the persistent cadre advantage in Tianjin, but failed to recognize its relative decline due to the higher returns to human capital and private/hybrid sector employment. Similarly, despite his conclusion of no evidence for the declining-significance-of-redistributive-power hypothesis, Zhou's income study also documented the tremendous economic mobility associated with market-based opportunity structure.
  57. Victor Nee, "The Emergence of a Market Society: Changing Mechanisms of Stratification in China," *American Journal of Sociology* 101 (1996): 908–949; William Parish and Ethan Michelson, "Politics and Markets: Dual Transformations," *American Journal of Sociology* 101 (1996): 1042–1059.

58. Keith Griffin and Renwei Zhao, *The Distribution of Income in China* (New York: St. Martin's, 1993).
59. Some cells are left blank because the models did not indicate statistically significant difference between the particular occupational category and farmers.
60. *Ibid.*, 35.
61. Victor Nee, "Organizational Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China," *Administrative Science Quarterly* 37 (1992): 1–27; Andrew Walder, "Local Governments as Industrial Firms: An Organizational Analysis of China's Transitional Economy," *American Journal of Sociology* 87 (1995): 517–547.
62. Jean Oi, "The Fate of the Collective after the Commune," in D. Davis and E. Vogel, editors, *Chinese Society on the Eve of Tiananmen* (Cambridge: Council on East Asian Studies, 1990), 15–30; "Fiscal Reform and the Economic Foundations of Local State Corporatism in China," *World Politics* 45 (1992): 99–126.
63. *Ibid.*, 19.
64. Ya-ling Liu, "Reform from Below: The Private Economy and Local Politics in the Rural Industrialization of Wenzhou," *China Quarterly* 130 (1992): 293–316.
65. *Ibid.*, 45.
66. Victor Nee, "Social Inequalities in Reforming State Socialism: Between Redistribution and Markets in China," *American Sociological Review* 56 (1991): 267–282.
67. *Ibid.*, 17.
68. *Ibid.*, 37.
69. *Ibid.*, 45.
70. Critics have pointed to the nonrandom sampling of counties in the CCO survey. However, Nee's multi-level analysis corrected for this problem of controlling for unobserved homogeneity at the township and village levels; at the household level the CCO sample was randomly selected.
71. Parish and Michelson assert Nee (1996) "assumes uniformity within provinces." This is incorrect, because Nee's research design was multi-level and employed township and village-level variables specifying variation in local institutional context. The final models omitted local market variables when they failed to have a significant effect on occupational mobility and change in income.
72. See William Parish, Xiaoye Zhe, and Fang Li, "Nonfarm Work and Marketization of the Chinese Countryside," *China Quarterly* (1995): 720.
73. Thomas Lyons and Victor Nee, editors, *The Economic Transformation of South China* (Ithaca: East Asian Program, Cornell University, 1994).
74. Numbers are calculated from sample data.
75. William Mason, George Wong, and Barbara Entwisle, "Contextual Analysis through the Multilevel Linear Model," in S. Leihardt, editor, *Sociological Methodology 1983–1984* (San Francisco: Jossey–Bass, 1983).
76. To obtain reliable estimate of county-level mean household income, Parish and Michelson eliminated "blatant outliers – logged income measurements that deviate to an implausible extent from the average, controlling for household total labor, household nonfarm labor, and logged mean community income" (Ethan Michelson, Master's thesis, Department of Sociology, University of Chicago, 1995). Our study uses county-level median household income, instead of mean income, to avoid the potential bias due to extreme cases on one hand, and the arbitrariness and imprecision that may be involved in defining income outliers on the other.