The Co-Evolution of Institutions, Organizations, and Ideology:

The Longlake Experience of Property Rights Transformation

Ning Wang

University of Chicago

June 2001

ABSTRACT

This paper examines the transformation of property rights over fishery resources in Longlake, China, a gradual evolutionary process from a common property regime to a state property regime occurred between the late 1970s and the late 1980s. It explores the active role played by economic actors as well as the underlying economic, political, and socio-cultural forces in transforming both formal and informal property rules. Stressing the different ways formal and informal property rules change, this paper contributes to our understanding of property rights transformation and institutional change in general.

(To be appeared in *Politics and Society*, September 2001)

Restructuring property rights occupies the top priority in reform agendas of transition economies. From St. Petersburg to Prague, and from Berlin to Beijing, countries in the former socialist bloc have taken different approaches, varying from the "big bang" to "crossing the river by touching stones," to transform their stagnated planned economies. A common practice is to restructure their poorly defined property rights.[1] In a society, property rights determine the parameters for the use of scarce resources and assign the associated rewards and costs to economic actors. The structure of property rights thus critically affects economic performance.[2] This proposition not only squares well with historical studies that have shown that different performance of economies over time is fundamentally shaped by the way property rights evolve,[3] but also wins support from cross-country comparative analyses that have accredited secure property rights responsible for sustainable economic growth.[4] In the past two decades, the vital importance of property rights has borne out again by the domino breakdown of former socialist economies.[5] Poor management and pervasive shirking nurtured by obscurely defined property rights have quenched socialist aspirations worldwide. One by one, socialist planned economies, characterized by a state property regime, began to embrace the capitalist mode of production, featured by the market mechanism of allocation and private property rights over factors of production. Yet, their ensuing zigzag path of transition to a market economy has plainly demonstrated the enormous difficulty of putting effective property rights in place.

One outstanding factor widely accused of complicating the change of property rights is its entanglement with politics.[6] Accordingly, studies of property rights transformation

have being focused on privatization, i.e. forcing out the state and bringing in private actors. In an influential article, Shleifer simply defines establishing property rights in transition economies as reducing political control.[7] To be fair, emphasizing privatization in restructuring property rights is hardly controversial. Since the socialist economy is characterized by a state property regime, moving away from the socialist economy is thus understood as to begin with privatizing state property, i.e. transferring property titles formerly controlled by the state into the hands of private actors.[8] This emphasis on reducing political control in restructuring property rights is well placed as long as former public sectors are concerned where the state was intensively involved.[9] However, in the emerging economic sectors, where property rights did not exist at all, property rights reforms are more concerned with creating new property titles than reallocating existent ones. As far as these sectors are concerned, the stress on reducing political control misses the main point. Since emerging private sectors are the most resilient force in all transition economies,[10] this misallocation of our attention may mislead us to dismiss the real critical factors in restructuring property rights in transition economies.

This study thus focuses on property rights evolution in emerging sectors. It is primarily based on the Longlake experience of property rights transformation in Hubei, China.[11] In the pre-reform era, fishery resources in Longlake were practically open, though legal rights were assigned to the state. Yet, "the tragedy of commons" did not occur until economic reforms ushered in fish markets in the late 1970s.[12] In the following decade, the tragedy unfolded and fishery resources depleted. Fortunately, fisheries were restored at the end of the 1980s when a secure regime of state property rights was firmly

established.[13] Drawing upon the new institutional economics, this study is to shed light on this process of property rights transformation.

In the light of new institutional economics,[14] property rights are viewed as social institutions, including formal legal codes and informal social norms, which define and enforce the range of privileges granted to individuals with respect to specific economic resources.[15] Since both legal rules and social customs define property rights, the change of property rights cannot be achieved simply by enacting new legal rules. At least, it also requires complementary changes in social norms, which together with new formal rules and other constraints re-define economic opportunities and re-draw the rules of the game to coordinate economic actors, including business organizations and individual entrepreneurs, in their pursuit of economic gains. The change of property rights is thus an institutional re-configuration of property rules. The new structure of property rights does not take root until economic actors adjust their expectations in response to new property rules and behave accordingly. North recognized the complexity of property rights change decades ago: “Property rights are always embedded in the institutional structure of a society, and the creation of new property rights demands new institutional arrangements to define and specify the way by which economic units can cooperate and compete.”[16]

The rest of this article begins with a critical review of the current theoretical debates on property rights transformation, which helps to locate this case study into a broad theoretical context. Moving on to case materials, it chronicles in detail the transformation from a common property regime to a state property regime. The attendant analysis consistently stresses the role of economic actors, their changing incentives and responses to new economic opportunities. As this papers aims to show, it is the dynamics between

competing economic actors and the continuous interactions between them and the changing institutional environment that have generated property rights transformation. In a nutshell, the change of property rights is brought about by the co-evolution of institutions and organizations.

THEORETICAL DEBATES ON PROPERTY RIGHTS TRANSFORMATION

Contemporary theoretical debates on property rights change are dominated by two competing schools, i.e. the economic school and distribution school.[17] Each side identifies different factors as critically responsible for the change of property rights. To abstract from their complexity and sophistication, and leave aside their rich internal variance, we can succinctly put their core arguments as follows. The economic school regards potential collective efficiency gains as the key factor pushing for property rights change;[18] while the distribution theory stresses distributional conflicts as the determinant force undergirding the evolution of property rights.[19]

The basic theoretical thrust of the economic school is to view property rights evolution as a response to changes of relative prices, either direct or indirect via the opening of new markets, population change, technological innovation, and so forth. Changing economic conditions create new opportunities that are unable to be captured under the extant arrangement of property rights, which is thus under pressure to change.[20] As a classical example, Demsetz attributes the development of private rights over land to the opening of fur trade.[21] Under the pre-existing common property rights, the opening of fur trade induced inefficient use of scarce resources (i.e. over-hunting). The emergence of

private rights over land could help maintain the stock of fur-bearing animals and hence generate long-term commercial gains.

The economic theory is quite powerful in predicting broad economic trends in history.[22] However, it is too “naive” or "optimistic".[23] Theoretically speaking, potential efficiency improvement cannot be materialized when distributional inequality is involved, as is rightly emphasized by the distribution school, or when efficiency gains are dispersed and thus collective action is required.[24] Under both circumstances, an efficient structure of property rights may not emerge. In practice, as both history and our contemporary world attest, the real world abounds with inefficient property rights arrangements. An efficient regime of property rights is an exception rather than the rule.[25] In addition, even when it is right, the economic theory cannot determine the direction of property rights change.[26] In many situations, the same causal factor, like the change of relative prices, generates quite different property rights regimes.

Not to beat a dead horse, we shift our attention to another shortcoming of the economic theory, which is of more relevance. In the economic model, economic actors, i.e., organizations and individual entrepreneurs whose interests are at stake, are pale and silent, if they exist at all. Literally speaking, it is not changes of relative prices that change property rights, but economic agents who do so interdependently while pursuing their self-interests. It follows that to understand the change of property rights, we need to know how economic actors, not as a black box but as firms and individuals as they are in the real world, respond to new economic opportunities, and more importantly, how they make sense of and respond to other's responses and thus interact with each other.[27]

The distribution school does duly emphasize the role of economic actors. Built upon and thus aware of the weakness of the economic school, the distribution school realizes that distributional issues can complicate the process of property rights evolution. In many cases, efficiency improvement is blocked due to distributional inequality.[28] As Libecap notes, "Distributional conflicts inherent in any property rights arrangement, even those with important efficiency implications, can block or critically constrain the institutions that can be adopted."[29] True, the change of property rights in the real world is seldom a Pareto improvement, if it ever were.[30] Some get better off; others worse off. Property rights change inevitably creates both winners and losers. Anticipating distributional losses, the losers are expected to take measures to block property rights change if such measures are not so costly to them as the property rights change. Accordingly, even if the change of property rights could generate collective gains, it may be blocked. Taking into consideration distributional inequality makes us appreciative of the complexity of supplying efficient property rules. Yet, simply invoking distributional conflicts to account for the failure of property rights change does not take us far enough. In criticizing the economic school as being naive and single-minded in emphasizing the “demand side” of institutional change (i.e., gains from the change), the distribution school correctly points out that factors such as distributional conflicts on the "supply side" can block property rights change. However, without specifying the mechanisms by which the losers translate their fear of loss into the failure of property rights change, the distribution school falls vulnerable to the same criticism. The losers cannot rest content on their desire to do the job, i.e., to block property rights change.

This weakness becomes clearer if viewed from the opposite angle. Libecap stresses that distributional disadvantages created by property rights change may induce potential losers to take efforts to impede it.[31] However, it is equally likely that distributional advantage may induce winners to take steps to speed up and facilitate the change of property rights. As a matter of fact, this alternative view is the central argument advanced by Knight, "Institutions are not created to constrain groups or societies in an effort to avoid sub-optimal outcomes but, rather, are the by-product of substantive conflicts over the distributions inherent in social outcomes." In the process, Knight stresses the role of winners: "the main goal of those who develop institutional rules is to gain strategic advantage vis-à-vis other actors."[32]

The co-existence of these two competing views is actually not surprising. By its very nature, institutional changes create winners and losers as well. This opens up two alternative approaches to examining distributional issues in property rights change. We can either emphasize the role of losers who may block the change of property rights to avoid being exploited, or stress the role of winners who, anticipating distributional gains, will take advantage of their bargaining power to speed up the change of property rights. Neither one can be ruled out logically. Hence, the issue becomes how far one side is able to push its agenda against the will and resistance of the other.

This understanding of institutional change is perspicacious and deserves credit. But it invites misuse if cautions are not taken. Knight certainly has a point when he argues that new rules of property rights are enacted to serve the interests of those with strong bargaining power. It fairs equally well when Libecap claims that distributional inequality

can impede property rights change. Yet, each argument can be easily over-stretched at the risk of under-appreciating or even ignoring the other.

The ambiguity or indeterminacy involved comes readily to light when viewed from an institutional perspective. The essence of institutions is a set of stable and widely held expectations.[33] A set of institutions creates and defines a social equilibrium.[34] The change of institutions is thus a move from one equilibrium to another. Accordingly, the success of institutional change depends upon whether a new set of stable expectations can be established. Whether the winners have enough bargaining power to advance their agenda, or for that matter, whether the losers can be mobilized to block the change and maintain the status quo, is neither here nor there. What is critical instead, is whether a new set of property rules can emerge and become accepted by both winners and losers while each side is pursuing its own self-interests so that all actors can reasonably anticipate the future and act accordingly.

This insight brings our primary attention to the formation of new equilibrium in the following case study. It is in the analysis of how social, economic, legal, and political factors exert their influence on the formation of new equilibrium that we can shed light on the complicated process of restructuring property rights. In what follows we focus on how economic actors come to grips with their sometimes conflicting and sometimes converging interests in constructing new property rules.

PROPERTY RIGHTS TRANSFORMATION IN LONGLAKE

The transformation of property rights to fishery in Longlake, an inland lake in Hubei, China, provides a rich "life history" for us to investigate how the structure of property

rights evolves. Before China's rural reforms were initiated in the late 1970s, fishery resources in Longlake were abundant and open. Though legal titles were delegated to the Longlake Fishing Farm (hereafter LLFF), peasant-fishermen were free to fish in the lake. LLFF and private fishermen co-existed peacefully.

This equilibrium was challenged with the introduction of rural economic reforms. Since the late 1970s, market forces were gradually brought into the economy. "Rural petty commodity markets" emerged instantly and spread out in most rural areas. Peasants began to bring everything valuable to markets in exchange for cash, such as chicken, eggs, extra agricultural products and fish of course.[35] Responding to new economic opportunities created by the opening of fish markets, both private fishermen and LLFF intensified their fishing activities to such a dramatic extent that fishery resources were put on the verge of depletion. At the same time, to protect its material interests, LLFF began to enforce its exclusive rights, attempting to institute a secure state property regime to replace the *de jure* common property system. Its determined efforts notwithstanding, LLFF could not amend property rules to its advantage in the face of massive resistance waged by fishermen, who were induced to intensify fishing in the advent of fish markets. Trapped into "the tragedy of the commons," fishery resources went depleted in just a few years. And most peasant-fishermen left Longlake.

Longlake might have remained as "a lake without fish," as peasant-fishermen bitterly remarked, had LLFF not put fish fries into the lake. To fulfill its annual state quota, LLFF had no choice but to stock fish in Longlake when the natural fisheries were in jeopardy, even though it was highly uncertain whether it could reap the harvest. To its surprise, however, ever since then, LLFF had steadily moved forward to consolidate its exclusive

rights. Few private fishermen returned to fish in the lake even when fishery resources had gradually recovered. By the end of the 1980s, a secured state property regime was firmly established.

At the beginning and the final phrases, established property rules, together with other social conditions, were able to engender stable expectations among fishermen and LLFF. Interactions among them in turn helped maintain the standing property rights regime. The years in between recorded the tension, occasionally bloody, between the lingering old and fledging new property rules. Our analysis focuses on how the old property regime was gradually replaced by the new one.

Methodology

A few words about methodology are in order. A large part of the case materials were collected during two field visits in 1997 and 1998. A total number of 24 former peasant-fishermen and 4 LLFF officials were interviewed. Both groups are not random samples in the usual statistical sense. Four LLFF officials were chosen because of their leadership in the past two decades and rich personal experience in dealing with fishermen. Twenty-four fishermen came from four different village-groups on the north side of the lake, where the vast majority of private fishermen resided.

A typical interview usually started with some pre-set questions, but informants were allowed and even encouraged to lead the conversation. Most informants were quite open and their recollections were vivid and in detail. After a little cross-checking, remarkable consistence is found among their narratives. Though some discrepancy between LLFF

officials and fishermen is expected, on most factual matters, there is no serious discordance.

A confession has to be made before we move forward. The author's personal experience made a big difference in data collection. The author was born and grew up in one of the four villages where fieldwork was conducted, and might have personally witnessed the entire process of property rights transformation had he not gone to the county city for high school and later Beijing for college. This "outside insider" relation helped tremendously to gain access to informants and conduct interviews and enabled him to double check many materials against his own personal experience. Such personal experience might render the whole project not "objective" enough. Yet, this potential bias can be, so to hope, over-compensated since the author unquestionably has a comparative advantage in presenting and analyzing the materials that he knows well from "a native point of view".[36]

Major Players

Economic actors are the agent of economic change. Thus we start with introducing the major players, viz. LLFF and peasant-fishermen.

The dominant player is LLFF and its governing bureau, Longlake Administration Office (hereafter LLAO). Both are housed on the south side of the lake, close to Jingzhou, the largest city in this region. LLAO was established in 1956 as a state bureau, whose original mission was mainly for flood-prevention in the region. LLFF was a state owned fishing farm, set up in 1966 to manage fishery resources in Longlake. Like other state-owned enterprises, LLFF had a mandatory state quota to meet each year. In return, the

state provided salary, housing, and other fringe benefits. Funded by the state, LLFF had advanced fishing equipment, relative to private fishermen. It owned several motorboats. And it employed large-sized trawl nets and purse seines whose operation required many boats working together.

Fishermen were mainly peasants who resided in villages around the lake. In this case, we focus on peasants on the north side because after rural economic reforms they were the major opponents of LLFF.[37] Before rural economic reforms were introduced at the end of the 1970s, fishermen went to fishing primarily for self-consumption because commercial activities were effectively banned. During the fishing season that started from April until October, the productivity of fishing was high, especially in July and August. Fishermen managed to fish in the early morning or late afternoon when they were not assigned to collective farming activities. With a rowboat and gill nets, a fisherman could easily catch a dozen jin (1 jin equals to 0.5 kilogram) of fish in two or three hours, an amount sufficient for family consumption.

One can hardly exaggerate the importance of fishermen and LLFF in the long and turbulent journey from common property to state property. As both directors and actors, their changing incentive structures and sets of choices are critical to understanding the turning points in the long process of property rights transformation. At the same time, we are fully aware that any intentional analysis without identifying causal mechanisms is vulnerable to functional fallacy.[38] The following analysis emphasizes the dynamics between economic actors and between them and property rules in restructuring property rights. For the sake of exposition, we divide the whole process into several stages in line with the chronological order.

Pre-Reform Era: Sustained Common Property

Though Longlake has a long history as a fishery, which can be traced back for at least several centuries,[39] this study begins with the pre-reform era.

At this initial stage, fishery resources were open yet sustained. Ever since Garrett Hardin's influential article,[40] the metaphor of "the tragedy of the commons" has dominated our thinking of common property. In Hardin's model, the tragedy occurs when individuals try to maximize their short-term gains at the risk of degrading the common resource. However, two constraints may prevent such tragedy from unfolding. First, as recent development in natural resource management have convincingly shown, the tragedy is more associated with "open access" than with common property, because in the latter case, a well-defined closely-knit user group tends to develop a set of self-enforcing rules to regulate the use of common property.[41]

Secondly, economic actors may not have incentives to over-exploit open resources, as is the case here. In the pre-reform era, neither peasant-fishermen nor LLFF had any incentive to overfish. As far as fishermen are concerned, their main purpose of fishing was self-consumption. As a state-owned enterprise, LLFF had no other incentives to fish other than meeting state quotas. Since both LLFF and peasant-fishermen were voluntarily self-constrained in fishing, it is not surprising that open fishery resources in Longlake remained sustained. It is important to recognize that this equilibrium of sustained open resources critically depends on the fact that neither LLFF nor peasant-fishermen had incentives to overfish. When this condition is not met, fishery resources would be in trouble, as we shall shortly see in the following section.

The Opening of Fish Markets

The existing common property regime worked quite well to serve the interests of both LLFF and fishermen. The lack of monetary return from fishing kept both LLFF and private fishermen from over-fishing. This in turn helped to keep fishery resources sustainable. However, with the opening of fish markets, this equilibrium was to break down. This section is to investigate the chain impacts of the opening of fish markets by focusing on the changing interests of both private fishermen and LLFF and their ensuing responses that led to the collapse of the common property regime.

The opening of fish markets was a direct result of rural economic reforms introduced at the end of the 1970s. The primary goal of the reform policy is to shore up economic incentives that had been suffocated under the planned economy. To achieve this objective, competition and markets were introduced into the economy and the former ban on private commercial activities was lifted. As a consequence, "rural petty commodity markets" arose quickly in villages and towns and grew steadily since then.[42] The emergence of fish markets provided new economic opportunities for both fishermen and LLFF. Not surprisingly, both parties responded immediately.

We begin with private fishermen's response to the changing economic conditions. After fish became a lucrative commodity, high profits in fishing quickly allured fishermen to intensify their fishing activities. With the advent of fish markets, fishing quickly became overwhelmingly commercialized. Since fish were fugitive and belonged to nobody until being caught, fishermen increased their fishing activities as much and as quickly as possible. When each private fisherman attempted to fish as much and as soon

as possible, in anticipating that others would do the same, they embarked on the track to "the tragedy of the commons."

At the same time, former constraints that used to check peasants from over-fishing had been seriously weakened after rural economic reforms began. Most obviously, since the end of collective farming, peasant-fishermen had much more free time at their disposal. In the pre-reform era, peasants were required to work in the collective land virtually every day, from sunrise to sunset. After the introduction of the "household responsibility system," peasants were totally free to allot their time the way they deemed appropriate. When the opening of fish markets dramatically increased the return from fishing, it is no wonder they spent much more time fishing.

Secondly, fishermen frequently used previously forbidden fishing tools, such as the electrical fishing rod. The substantial increase of the use of banned fishing tools was attributable to, on the one hand, the increased return of fishing after the open of fish markets, and on the other hand, the breakdown of the informal control system after the introduction of rural reforms. The latter factor needs more explanation. After the introduction of the household responsibility system, decollectivisation and the ensuing household individualism had greatly deprived village officials of their material resources and ideological authority.[43] At the same time, public criticism and ostracism lost their power to punish violators and keep fishermen in compliance. Both helped to pull down the former informal control system. Not surprisingly, formerly banned fishing tools became widely spread.

Put together, market reforms not only made fishing enormously profitable and attractive, but also removed previous social constraints against over-fishing. A race was triggered among fishermen to fish as much and as quickly as possible.

In addition, as time passed, economic reforms gradually brought about radical shifts in individual preferences through the demonstration of new consumption patterns and the modes of living. The changing consumption pattern of durable goods nicely illustrates the trend.[44]

(Insert Table One here)

In 1980, among the 24 fishermen informants, 16 of them had radios, 8 had watches, and none had bicycles. In 1985, all had radios and watches, 20 had bicycles. And the so called "new big three items" began to be seen in rural households. Among the same group of fishermen, by 1985, 15 had electrical fans, 8 had TVs, and 2 had sewing machines. In 1997 when interviews were conducted, every household had “three big items” and “new big three items” except sewing machines, which had gradually lost their lure to rural households.

Another good indicator is the gradual demise of “in-house” clothes and shoes making. Until the end of 1970s, most clothes and shoes that peasants wore were home made. A pair of shoes or a cloth bought from stores was definitely a luxury. However, at the time of conducting the interviews, not a single fisherman reported that his family still made clothes or shoes. These dramatic changes have not only shown fishermen what “luxury" commodities they could purchase after selling their fish, but also created in

peasants a pressing need for cash and thus pushed fishermen further to over-exploit fishery resources.[45]

Similarly, LLFF responded to new opportunities by intensifying its fishing activities because it could sell extra catch at the market to enrich their "private coffer." Though salaries still remained controlled by the state and thus fixed, managers could reward themselves and workers in various ways, by using cash from their "private coffer." As interviews with LLFF officials reveal, in the early 1980s, earnings drawn from their "private coffer," constituted a substantial part of their total income. In certain months, such extra earnings were actually higher than salaries paid by the state. In addition to direct cash bonus, LLFF also tried to improve the work environment. As one LLFF official said in the interview,

> We did not know what we could do with extra cash that we had at our hands. There was no relevant policy to refer to. While we could not spend all the money as bonus, we increased the overtime payment using money from our "private coffer." We could hire temporary hourly workers to do those onerous jobs that our workers did not like. We provided more funding to the workers' union, and it could buy color TV, table tennis, and organize various entertaining activities.

After the opening of fish markets, in addition to intensifying their fishing activities, LLFF also began to take enforcement measures, aiming at casting private fishermen out of Longlake. This is quite understandable. First, as the economic theory of property rights predicts,[46] more efforts will be put into enforcement when the economic value of the property rises. Fishery resources certainly appreciated dramatically in value after the opening of fish markets, which used to have no exchange value at all in the pre-reform era when private commercial activities were banned. Secondly, when private fishermen intensified their fishing activities, increased negative externalities made LLFF much more

difficult to catch fish and fulfill state quotas. Both forces worked in the same direction to induce more enforcement efforts from LLFF. However, it is a tremendously tough task to exclude fishermen from fishing in Longlake. From the legal standpoint, it is no doubt that LLFF had exclusive rights. Yet, the sudden resolution of LLFF to enforce its legal rights directly challenged the customary rights enjoyed by peasants for generations. As a result, we expect to see massive resistance from fishermen.

Before we plunge into the details of what LLFF did to consolidate its legal rights and how peasant-fishermen responded recalcitrantly to offset LLFF's efforts, it is worthwhile noticing that LLFF's very intention of casting out peasant-fishermen, as reflected by their attempted efforts, had far-reaching secondary consequences, totally unanticipated by LLFF. Soon after the opening of fish markets, LLFF attempted, though in vain, to enforce its legal rights against customary rights, trying to force out fishermen. Ironically, LLFF's futile attempts invited a strong backlash. As a matter of fact, LLFF's failed efforts made fishermen aware that their fishing rights were no longer certain and might be denied in the near future. This uncertainty over their future fishing rights encouraged private fishermen to take a short-term view toward fish resources and thus amplified their incentives to maximize the short-term fish catch. In less than a few years, fishery resources in the lake were ruined. Daily catch became so disappointing that fishermen began to leave Longlake and turned to elsewhere for fishing.

A Transitory World of Disorder

Obviously, the tragedy of the commons caused big economic losses for both fishermen and LLFF, not to mention its ecological impact. When the existing system of common

property rights became ill-adapted to altered economic conditions and led to inefficient use of economic resources, why did not we observe a new and more efficient property rights regime emerge, as the economic theory would so predict? In spite of its determined attempts, LLFF failed to consolidate its *de jure* rights. Why could not LLFF keep private fishermen away from fishing in Longlake? To be sure, fierce resistance from fishermen is not surprising. It remains puzzling, however, that LLFF, the single most powerful player, could not protect its economic interests. How could fishermen, though large in number, but powerless and dispersed in many villages, manage to neutralize LLFF's endeavor?

Existing theories of property rights do not have firm and fast answers to these questions. According to the economic theory, the increase of the economic value of fishery resources generated by the opening of fish markets would induce a new regime of property rights with a clearer assignment and more rigorous enforcement of fishing rights.[47] LLFF's attempts to consolidate its exclusive rights are indeed corroborative. Yet, it cannot explain why LLFF's determined attempts failed in spite of tremendous potential efficiency gains.

The distribution theory correctly emphasizes that efficiency gains are neither sufficient nor necessary to induce property rights change.[48] At a first look, this case seems consistent with and even lends support to the Libecapian version of distribution theory: LLFF's attempt was doomed because it contradicted the interests of fishermen, who would fight hard to maintain the status quo. At the same time, we also tend to think that this case turns on its head the Knightian version of distribution theory since Knight would predict that LLFF should emerge to usurp the exclusive property rights because it was the single most powerful player. What we observed, however, is the opposite. Fishermen

continued to fish notwithstanding LLFF's increased enforcement efforts. Nevertheless, the final consolidation of property right into LLFF, is clearly in contradiction with Libecap, but in accordance with Knight.

This section focuses on why LLFF failed to enforce its rights. We pay special attention to conflicts between legal property rules and social norms that underlie customary property rules.

Property rights are defined by both legal rules and social customs. In this case, both legal codes and social customs were at work. What is somewhat unique here is that the legal code and social customs were sharply discrepant with each other. While legal rights went to LLFF, practical rights defined by social customs made fishery resources open to fishermen. Since the opening of fish markets, LLFF had tasted the increased exchange value of fishery resources and could anticipate greater material gains if fishermen were excluded. In addition, since fishermen rushed to fish as much and as quickly as possible, the threat to fishery resources was clearly present. LLFF had very reason to worry that it might not be able to fulfill state quotas. Facing both “pull” and “push” forces, LLFF responded quickly to take measures to consolidate its legal rights.

Since fishery resources in Longlake had been open for generations, LLFF's first task was to make its legal rights known to fishermen. Indeed, LLFF undertook a series of measures to publicize its exclusive rights over fishery resources. In 1980, came out the first regulatory document, “Regulations of Fishery Resources in Longlake.” This document first time officially stated that fishery resources in Longlake were state property, administrated by LLFF. “Regulations” also first time outlawed any fishing activity of fishermen. Later versions of the “Regulations” clearly specified fines and other

punishment for violators. In addition to making rules, LLFF also took measures to increase their enforcement efforts. For instance, several high-speed motorboats were purchased, which greatly increased LLFF's capability to patrol the lake.

LLFF's attempts, however, encountered fierce resistance from fishermen who had for generations taken their fishing rights for granted. Historically, peasants in this region had been fishing in the lake for generations, as clearly reflected by the local proverb, "Live off the mountain when you dwell close to a mountain; live off the lake when you dwell close to a lake." More recently, the reluctance of LLFF to enforce its rights in the pre-reform era helped to persevere and perpetuate this tradition. As a part of the local culture, this maxim not only vividly recounted a way of making a living for peasants in the region, but also became a widely held social norm with strong normative implication. Moreover, the descriptive and normative facets re-enforced each other. On the one hand, the actual social practice helped to validate and objectify the social belief. On the other hand, the social belief served to sanction, or as Berger and Luckmann put it, to "internalize" the social practice.[49] This incessant mutual re-enforcement of social practice and social beliefs made this proverb a most active and appealing part of local ideology that could be easily invoked to justify the status quo. As a fisherman remarked:

> They (LLFF) did not have the authority to keep us away from fishing in the lake. Who had such an authority? As the old adage says, "Live off the mountain when you dwell close to a mountain; live off the lake when you dwell close to a lake." We have been fishing here for generations. Longlake is our "bag of rice" given by the Heaven. No one can take it away from us.

Since LLFF and fishermen subscribed to clashing property rules, conflicts arose frequently between them. In the beginning, LLFF did not take harsh measures. From the

watchtower, LLFF patrol officers could easily detect fishermen in the lake, if weather permitted. With a motorboat, they could quickly approach intruders. Fishermen were usually warned of their illegal fishing activities and then asked to leave. It was not uncommon for private fishermen to rebuke by saying that they were not aware that fishing in the lake could be illegal at all. Notwithstanding their reluctance, at the presence of LLFF patrolmen, fishermen usually collected their fishing nets, punting their boat toward the northern shore. However, when the patrol boat went out of their sight, these fishermen returned. As time went on, LLFF patrolmen felt cheated and became more aggressive. Exchange of verbal threats became common. Later on, LLFF patrolmen began to destroy gill nets that private fishermen left in the lake without pre-warning. It became worse when a single fisherman was intercepted in the lake. Particularly when he behaved disobediently, LLFF patrolmen (usually three in a patrol boat) might take certain merciless steps, such as confiscating catches and fishing nets. Under such circumstances, antagonism between LLFF and the fisherman could readily escalated and sometimes turned ruthlessly violent.[50] Yet, when confronting several fishermen, patrolmen were hesitant to take further actions rather than verbal warning, afraid of violent confrontation.

This reasonable enforcement strategy, however, unknowingly engendered an indomitable resistance pattern. Since a single fisherman was to face severe treatment, fishermen, who used to fish alone, gradually learned to team up. As well known by fishermen, when two or more fishing boats stayed in proximity with each other, their catches would drop. Indeed, in the past every fisherman had respected the code of territory. Fishing close to other boats had been deemed hostile and unacceptable among fishermen. Yet, this protocol began to change. With the threat of LLFF, fishermen were

less likely to be hassled when close to each other. First, staying close to each other, fishermen could be easily informed when any one detected that LLFF's patrol boat was coming. Secondly, even when intercepted by LLFF patrolmen in the lake, fishermen were not to have serious troubles. To protect themselves, fishermen gradually got organized into many "underground fishing gang groups."[51]

The formation of these gang groups posed substantial challenges for LLFF to enforce its legal rights. From the viewpoint of fishermen, group fishing first helped to reduce the likelihood of being caught and being penalized if caught. Second, and following the first point, the existence of resistance group helped to lower other fishermen's threshold to breaking the rule. A basic argument recurrent in the literature of social movement is that individuals are more likely to join the social movement when it already has many participants.[52] Thirdly and most importantly, group fishing helped to justify and legitimize itself. What fishermen said in interviews is quite revealing.

> When we have a lot of guys fishing together, we were no longer afraid of LLFF patrolmen. They could not do anything to us.

> At first, I was afraid of fishing in the lake when I heard that LLFF did not allow us to fish any more. But other guys continued fishing in the lake, and nothing happened to them. My wife then asked me to follow others.

> Who were afraid of them (LLFF patrolmen)? 'The law does not punish the multitude.' They could fish in the lake, so could us. What made them different?

The last point needs to be elaborated in the context of local culture. At first, the massive existence of violators diminished their sense of being violators, as is said in a Chinese proverb, “the law does/should not punish the multitude.” In its original Chinese

sense, this maxim connotes both descriptive and prescriptive tones. In the descriptive sense, it literally says that the law does not punish the majority. In the prescriptive sense, this proverb implies that the law is not a law when a multitude of population whom it intends to rule opposes it. That is, the law that works against the majority stops to be a law. As a result, this local social belief greatly de-legitimized the claim of LLFF on the one hand and sanctioned fishermen's continuous fishing activity on the other after the formation of gang groups. Both effects helped to undermine LLFF's efforts.

From the perspective of LLFF, a large number of violators made enforcement extremely costly. This is the Hobbesian problem in law enforcement: when most people obey the law, enforcement agents can do their job at a low cost. However, when most people challenge the law, enforcement costs become prohibitively high. In this case, it took efforts to detect and then oust fishermen. Moreover, even when fishermen were caught in the lake, LLFF could not take measures to punish private fishermen, in fear of a violent backlash. Indeed, when the size of fishermen group far outnumbered that of patrolmen, LLFF patrolmen could not do anything but watch at a distance. Such frustration greatly discouraged patrolmen, who became increasingly reluctant to engage any policing activities at all. This situation, not surprisingly, encouraged fishermen to stay fishing in the lake.

Apparently, our analysis thus far vindicates the Libecapian version of distribution theory, which claims that when the property rights change causes massive distributional inequality, disadvantaged parties will oppose new arrangement, even though it allows for an aggregate expansion of wealth. Yet, our analysis perpetually emphasizes the mechanisms that translate private fishermen’s loss avoidance to the failure of property

rights change. Particularly, we stress the importance of ideological factors. Fishermen first turned to customary rights embedded in local ideology to justify their continuing fishing activities in defiance of LLFF's legal rights. Later, they resorted to the local legal culture, "The law does/should not punish the majority," to challenge the legitimacy of LLFF's claim. What is made abundantly clear here is that property rights transformation when started with changing formal property rules, is bound to encounter resistance from informal institutions, like local customs and social norms. This is so because property rights, like other institutions as well, contain both formal and informal rules. While formal rules can be deliberately enacted, informal rules are more difficult to maneuver and resistant to intentional design. Accordingly, the change of property rights is far more complicated than simply designing new formal rules. In addition, the acceptance and enforcement of formal rules are hopelessly entwined with and thus dependent on informal rules. The enforcement of formal rules cannot be left to coercive power alone, but rather needs the support of informal rules. Hence, institutional change in general and the change of property rights in particular require at least corresponding changes in informal institutions, in addition to the enactment of new legal rules, as our following analysis will demonstrate.

From Anarchy to Order

For the study of institutional change, Riker recommended us "to analyze crucial turning points when people consciously try to change the way institutions works."[53] This is mainly because at such points the motives and goals of reformers were well known. While this recommendation is well taken, in the real world, however, many institutional

changes do not result from human design but rather gradually evolve out of spontaneous human interactions and social learning.[54] Indeed, of equal if not more importance for the study of institutional change are circumstances when institutions are accidentally transformed as a result of unintentional or "unanticipated" consequences.[55]

In this case, as we have shown in the preceding section, LLFF plainly failed to modify the property rules, in spite of its strong incentives and coercive power. Though LLFF could and did design new rules in response to emerging economic opportunities created by the opening of fish markets, informal property rules embedded in the local culture hung on and were aggressively invoked by fishermen to handicap LLFF's efforts. Though a secure regime of state property was finally established, it did not result from LLFF's unilateral enforcement efforts, as our following analysis will attest.

As the episode of the tragedy of the commons unfolded, fisheries in Longlake dwindled quickly. Accordingly, fewer and fewer fishermen continued fishing in the lake. This is not surprising. When the return of fishing diminished, fishermen reduced fishing activities because fishing in the lake was not as profitable as before. Though it is equally possible that fishermen might increase their fishing activities in order to catch the same amount of fish. This scenario, however, hinges on the opportunity cost of fishing in the lake, i.e., the value of the alternative use of time. When there are alternative fishery resources or opportunities, we expect that fishermen should leave Longlake. This is indeed the case. In the middle of the 1980s, cultured pond fishery was gradually introduced to this region. Many irrigation channels, ditches, and decayed reservoirs were converted to fishponds. The availability of pond fishery and other business opportunities as well attracted many private fishermen away from fishing in Longlake.

The emergence of pond fishery is expected given the rising profitability of fishery. For our current purpose, we focus on the development of pond fishery along the bank of Longlake at the north side. These ponds, separated by the bank from Longlake, were originally used to reserve water for paddy fields. Unlike rivers or inland lakes, such as Longlake, which are state property, ponds in rural area belong to local collectives according to Chinese land law. In this case, the vast majority of ponds are village property, though some are controlled by the township government, one rank above the village in the administrative hierarchy. These ponds are rent out to peasants, who put fish fries in the pond in early spring and reap the harvest in winter.

As expected, the rise of pond fishery and other business opportunities considerably reduced the number of fishermen remaining fishing in the lake. This had critical impact on LLFF's consolidation of legal rights. Its immediate effect was the demise of the gang groups who had effectively neutralized LLFF’s efforts in the past. When more and more private fishermen switched to pond fishery, the once powerful village-based gang groups gradually dissolved. The disintegration of gang groups affected both LLFF and private fishermen in the same direction to reduce enforcement costs.

Let us first look at its impact on LLFF. We have shown in the preceding analysis that low morale and high enforcement costs constituted a self-sustaining mechanism that undermined LLFF’s endeavors to revise property rules. This mechanism was broken down, however, after the disintegration of gang groups. To say the very least, a considerable decline of violators saved policing cost. Challenged by massive resistance, as was in the past, LLFF could not help but surrender to fishermen. However, the dramatic decrease in the number of fishermen fishing in the lake made it much easier for

LLFF to enforce its rights, detecting and punishing violators, and deterring potential ones. As LLFF encountered fewer fishermen and hence less resistance in the lake, it gained more leeway to take actions, sometimes violent, against violators, such as confiscating nets, fish, and even boats, charging high fines and even physically abusing detained fishermen. Moreover, the increased odds of catching and punishing violators provided both material and non-material incentives to encourage LLFF to take more actions in patrolling and policing.[56] Over time, this process became self-intensifying.

On the side of fishermen, the sharp cutback made the remaining fishermen less secure and more vulnerable, both physically and morally. First, the chance of getting caught arose dramatically when there were only a few fishermen in the lake. More importantly, the dramatic decrease of fishermen fishing in the lake deprived the remaining ones of the moral weapons that had served to challenge and negate the legitimacy of LLFF's legal rights. As we have discussed above, an important ideological weapon that sanctioned private fishermen's fishing activities is the traditional legal belief that "The law does/should not punish the multitude." However, as more and more fishermen left Longlake, this social belief began to lose its hold. Bereft of the ideological shroud, fishermen who remained fishing in the lake had nothing to counteract LLFF's claim. One fisherman had the following to say after the disintegration of gang groups:

> I went to fishing only when I had others with me. . . . We used to fish together, as least five or six guys. I felt safe when I was within others.

The fishermen continued after I interrupted with the probe, "What you mean by 'safe'"?

> Well, LLFF could not do anything harmful to me when there were a lot of us together. How could they? 'The law does not punish the multitude.'

Clearly, without the ideological weapon, fishermen felt much more vulnerable. The former self-sustaining mechanism that had helped to stimulate and maintain fishermen's massive resistance began to fall apart.

In addition, the rise of pond fishery helped to cultivate and promote the sense of and respect for secure property rights among fishermen. When fishermen who used to fish in the lake shifted to pond fishery, they began to share with LLFF the serious concern of fish-filching and urgent desire for security.[57] This dramatic change is well captured by one fisherman who started pond fishery in 1988.

> The biggest problem is pond-guarding, especially in winter when water is shallow in the pond and fish prices are high. It's very easy for thieves to catch a lot of fish in a just few minutes. I have to be around my pond all the time, day and night. Staying in the shelter is not good enough, especially at night because there are always some guys hiding somewhere trying to take advantage of you. I have to patrol my pond several times during the night.

Since fishing in the lake became so unproductive, fishermen remaining fishing in the lake occasionally turned to fishing ponds. These wrongdoings committed by the remaining fishermen further distanced themselves away from their former fellows and helped to foster among those fishermen who engaged in pond fishery the longing for secure property rights over fishery resources. This emerging desire for secure property rights made these fishermen sympathetic to LLFF's efforts to consolidate its legal rights and receptive to the idea of secure property rights in general.

Our analysis could end up here. After the demise of fishermen gang groups, LLFF could easily enforce its legal rights. A regime of state property was thus in sight.

However, we can readily sense that property rights thus established are not stable. Fishermen left Longlake when fishing there became no longer profitable. Yet, they could simply return when fisheries in the lake recovered. Self-interest alone is not sufficient to make new property rules.

Keeping this caution in mind, we go back to case materials, which bring our attention to the gradual demise of natural fishery and the rise of cultured fishery. While fishermen left Longlake, LLFF had no choice but to stay. The depletion of fish resources raised a serious problem for LLFF to fulfill state quotas. Without other choices, since 1983 LLFF began to put a large amount of fish fries into the lake. Cultural fisheries gradually replaced natural fisheries. But, why was LLFF willing to stock fish in the lake while its exclusive rights were not guaranteed yet?

Obviously, unlike fishermen who could, and did, move to other fisheries for fishing in the wake of the tragedy of the commons, LLFF did not have the choice of "exit." It had to continue to fulfill state quotas each year even when natural fisheries were virtually destroyed. LLFF was thus forced to stock fish fries in the lake. At the same time, since LLFF was a state agent, it was less sensitive to the operation costs and hence able to stock fish in the lake even when the costs exceeded the benefits.[58] Like other state-owned enterprises, LLFF could continue its operation even when it became insolvent.[59]

This replacement of natural fishery by cultured fishery has had an accidental yet far-reaching impact on fishermen's attitudes toward LLFF's claim of exclusive rights over fisheries. At first, fishermen took for granted their free access to natural fisheries in the lake. Therefore, when LLFF initially attempted to consolidate its legal rights, fishermen invoked customary rules to justify their continuous fishing, defying LLFF's legal claims.

However, after LLFF began to put fish fries into the lake, an act whose intended purpose had nothing to do with property rules, fishermen began to change their views.

During the period of natural fishery, local customs defined fishery resources as open. Fish belonged to nobody before caught. The rule of first possession prevailed. In the case of cultured fishery, however, the one who stocked fish had the exclusive fishing right. In other words, while local social custom defines natural fishery resources as common property, cultured fishery resources are, however, private property. As one fisherman admitted:

> No one (private fisherman) like me would stock fish in the lake. I am not that foolish. After they (LLFF) put baby fish in the lake, we cannot fish there any more. The natural fish (resources) were almost gone. They stocked their fish in the lake. We cannot catch their fish. It's like stealing.

This view was widely shared among fishermen. Among the twenty-four fishermen informants, only two (8.3%) did not accept the view.

This ideological change, from "Live off the lake when you dwell close to a lake" to "Fishing in the lake is like stealing," marked a watershed in the whole process of property rights transformation. Before examining its immense effect, we need to make sure social norms defining customary rights indeed changed after the rise of cultured fishery.

Social norms are rules of conduct that provide standards by which behavior is approved or disapproved. In the Durkheimian tradition, the best way to identify social norms and their change is to study reactions to deviations from social norms.[60] In this case, to see whether fishermen changed their views of fishing rights is to examine their attitudes toward "tough guys," the few fishermen who remained fishing in the lake.

During their early combat against LLFF, these "tough guys" had been the coordinators in each village to mobilize fishermen to confront LLFF. They had won social respect by leading the resistance movement to articulate and protect fishermen's material interests. However, as time passed, particularly after the disintegration of fishermen gang groups, their social status changed dramatically. As one informant commented,

> I did not understand why these guys continued doing this (fishing in the lake) after most of us left. In the old days, we went to fish because it (fishery in the lake) was natural. Things changed after they (LLFF) put fish fries in the lake. Most of us no longer fish there. If you were a hard worker, there were other opportunities to earn money.

Clearly, their former fellow fishermen began to regard the few remaining fishermen as too lazy to engage in other business and deemed their behavior "unreasonable." No longer applauded as heroes, these remaining fishermen were increasingly marginalized in their villages and even viewed as "local bullies."[61] This dramatically changed social attitudes toward "tough guys" clear indicates that the majority of fishermen have abandoned their formerly held property rules, viz., "live off the lake when you dwell close to a lake," and begun to embrace the new social norm, i.e., "Fishing in the lake is like stealing." It was a total surprise to LLFF that its measure of stocking fish fries in the lake helped to win social support to legitimize its legal rights, since interviews with LLFF officials reveal that they were not even aware of this change of social norms.

This ideological shift registered a turning point in the evolution of property rights. Sociologists have long realized that ideology plays an important part in mediating interactions between institutions and organizations. Ideology as a part of the institutional

system is singled out because it provides a "cognitive and moral map of the universe"[62] It is through the veil of ideology that individuals make sense of the world. Ideology shapes not only how individuals perceive the world (i.e., social cognition), but also how they evaluate the ways the world is perceived (i.e., social judgment). It is in this sense that ideology works as a "meta-institution" because it determines how rules of the game are perceived and evaluated.

In this case, during the era of natural fishery, fishermen considered fishing in the lake as their natural rights. LLFF's proposed new property rules, attempting to exclude fishermen outright from fishing in the lake, was accordingly seen as illegitimate. Massive resistance followed. After the rise of cultured fishery, "Fishing in the lake is like stealing" became the "reference norm," according to which fishermen judged their behavior. New social meanings were attached to "fishing in the lake."[63] Consequently, what used to be legitimate fishing activities in the eyes of fishermen became wrong and were reproved, and the remaining few fishermen, who used to be heroes, were censured and socially ostracized. In the wake of this change of social norms, the new set of informal property rules converged to and thus helped to re-enforce the formal property rules. In a sense, fishermen became “quasi-voluntarily” compliant with the formal property rules. Only then was a secured state property regime firmly established. As Rousseau contended, it is in the end the law that is written in the hearts of the people that counts.

This ideological change also sheds light on the role of distributional inequality in property rights transformation. According to Libecap’s model of distribution theory, distributional inequality tends to generate social conflicts and hence block the change of property rights even when collective efficiency gains exist. Our analysis adds an

intervening variable, i.e., social perceptions of distribution, between the independent variable (distributional inequality) and dependent variable (resistance). Since individuals respond to their subjective perception of the world, not the world itself, what matters is social perception of distribution, not distribution per se when distribution plays a role in institutional change. As a result, the contradictions between Libecap's distribution theory and our case materials can be nicely reconciled. The early scenario of property rights change, i.e., LLFF's failure to consolidate its legal rights, lends support to Libecap's version of distribution theory because LLFF's proposed distribution was perceived as illegitimate. The same distribution became socially accepted, however, after the ideological shift.

To sum up, the change of social norms not only brought about a new set of informal property rules consistent with legal property rules, but also helped to enforce legal property rules via depriving "tough guys" of their ideological weapons. Moreover, in the light of the new social norm, distributional conflicts melted into the air. A new regime of property rights was thus ushered in.

Though we have emphasized the role of ideological change in strengthening LLFF's legal rights, we are not blind to the possible confluence of other factors.

First, the change of LLFF in terms of its governance structure is worth our attention. After LLFF stocked fish in the lake, operation costs increased dramatically. At this juncture, economic reforms of state-owned firms were introduced. A new contract responsibility system was initiated at LLFF in 1984. Under the new rules of management, LLFF could retain any profits left after it fulfilled state quotas. As specified in the contract, the managers of LLFF had in their disposal the money they earned in selling

extra catch. At the same time, they were wholly responsible for any economic loss. This reform policy greatly "hardened" LLFF's budget and generated tremendous pressure on LLFF to operate efficiently. At the same time, it also created a "high-powered" incentive scheme because this contract policy empowered LLFF to become the "residual rights" holder. LLFF was thus transformed from an “agent” to a “principal.” Since then, LLFF became more aggressive in enforcing its exclusive rights.

Second, the rapid development of China’s legal system in the 1980s played an important role. In 1987, the Chinese Fishery Law was enacted, which greatly strengthened the legitimacy of LLFF’s claim of exclusive fishing rights. Moreover, the Fishery Law entitled LLFF, if necessary, to get help from local police to enforce its fishing rights. The arrest of the two most well known defiant fishermen, the Wang brothers, is a good example. Though LLFF patrolmen had identified and located these two “tough guys” for some time, they were afraid to take any further actions against them because the Wang brothers proclaimed that they would kill anyone whoever dared to annoy them. Both being physically strong, stubborn, and callous, their threat worked. However, after LLFF patrolmen reported this case to the local police, policemen went to the village and easily arrested them. Both were later charged and sentenced for five years in prison for breaking the Fishery Law.

Not only were more laws enacted, more efforts were also put to propagate existing laws. Actually before the Fishery Law was enacted, several sections of the Constitution and Civil Codes that bear relevance to the use of natural resources were singled out in the first five-year campaign of “promulgation of legal education”(1985-90). Though this campaign was a nationwide social movement to equip citizens with basic legal education,

the content of the program was catered to local conditions. In the Longlake region, where the competitive use of water and fishery resources had given rise to many conflicts and violence, emphasis was laid on the legal issues in the utilization and management of fishery resources.[64]

All these measures unquestionably made LLFF more motivated and effective in policing. However, it claims too much to attribute to these measures the consolidation of LLFF's property rights. Theoretically speaking, reliance upon punishment and deterrence alone, without "a minimum of voluntary compliance," was too costly to establish and enforce new rules.[65] Since the way institution works is to generate stable expectations among social actors, new property rules would not be effective until quasi-voluntarily complied by fishermen. In this case, LLFF's increased enforcement efforts together with the help of state indeed played a big role deterring fishermen from fishing in the lake. Yet, it had nothing to say about the change of social norms. LLFF patrolmen might be able to force fishermen out of the lake, however they could not force fishermen to change their mind.[66]

Another factor worth stressing is the development of pond fishery. Ex post, it is true that the change of social norms helped to create wide respect for secure property rights, which certainly had beneficial effects for fishermen who shifted to pond fishery. But, the timing of the change of social norms does not support the rise of pond fishery as a cause. The ideological shift followed the rise of cultured fishery, but preceded the wide spread of pond fishery. Moreover, simply invoking the desired contribution that the change of social norms could make does not explain how the change actually occurred, unless the

underlying mechanisms are specified that help to translate individuals' intentions into institutional change.[67]

Nonetheless, it is undeniable that the two factors, i.e., LLFF's increased capacity of enforcement and the rise of pond fishery, did help to sustain new property rules once the change of social norms occurred, thus render the new equilibrium stable. On the one hand, the rise and spread of pond fishery enabled fishermen themselves benefit from secure property rights. On the other hand, LLFF's more effective enforcement deterred fishermen from continuous fishing in the lake. Therefore, new property rules defined a win-win situation for both fishermen and LLFF.

IMPLICATIONS

Sustained economic growth requires property rights to adapt to dramatic changes in economic conditions, such as the opening of markets, which render the former property rights structure ill-attuned to the altered economic landscape. The change of property rights is, however, a gradual process, rife with distributional and ideological conflicts and subject to path dependence, as this study has vividly shown.

In the prolonged process of property rights transformation, stands out the role of economic actors, i.e., LLFF and private fishermen. Their changing incentives and attendant responses to economic opportunities, which are largely shaped by the evolving institutional environment, figure prominently in the whole process. It is their entrepreneurial responses, sometimes conflicting with each other, sometimes cooperating, to new social and economic conditions that have brought in place the new regime of property rights.

Yet, emphasizing the role of economic actors in institutional change does not imply that the process would proceed as designed or intended by either LLFF or fishermen. What Hayek has said many decades ago about the rise of the market, that it is “the results of human action but not of human design,” applies equally well to institutional change in general.[68] This is exemplified in at least three episodes. First, after the opening of fish markets, LLFF's vain attempts to keep private fishermen out of Longlake only intensified their fishing efforts and hence started the irreversible race to the tragedy of the commons. Second, the formation of fishermen gang groups resulted from LLFF’s enforcement strategy, i.e., harsh punishment to a single fisherman when caught. This enforcement method unexpectedly encouraged fishermen to organize into large groups, which were able to confront LLFF. Third, LLFF’s initiative to stock fish in the lake after the depletion of natural fisheries surprisingly triggered the ideological shift on the side of fishermen. It is through examining these unforeseen consequences that we are able to uncover the complexity of institutional change.

In explaining institutional change, our analysis emphatically differentiates the change of formal rules and informal rules. When economic actors reason that existing formal rules do not satisfy their current needs, they are to design and enact a new set of formal rules, after compromising various interests, to *replace* the existing one. This process is largely subject to human design, though their acceptance and enforcement are not so, since they are deeply entwined with informal rules. The change of informal rules, contrarily, follows a distinct way. Unlike the change of formal rules, the shift of informal rules does not require and indeed cannot be accomplished by intentional intervention from "norm entrepreneurs."

It is this feature of informal rules that makes them recognized as the most resisting force in institutional change by experienced observers in the field. The weakness of property rights analysis, according to Eggertsson, is "its limited understanding of informal institutions, how they evolve and how they relate to formal institutions."[69] More recently, in a recent article setting the research agenda for institutional change, North recommends us to learn "how norms of behavior come about and disappear and what their relationships are to cultural beliefs" and "how they interact with formal rules and influence economic performance."[70] Though this study is far from providing a general theory of the change of social norms, it offers some interesting insights.

In this case, the change of social norms was neither planned nor anticipated. Both the old and new informal rules resided in local culture, as active or tacit knowledge.[71] The change of social norms occurs when the formerly dormant norm gets activated and becomes the "reference norm," *displacing* the formerly active norm, which has lost its cognitive primacy.

Rather than amenable to human intentional efforts, as is the case with formal rules, the switch of social norms, as our analysis painstakingly shows, is subject to historical contingency and social context. The ideological shift from "Live off the lake when you dwell close to a lake" to "Fishing in the lake is like stealing" occurred mainly due to the accidental confluence of two events. First, LLFF began to stock fish in Longlake after the depletion of natural fishery resources in order to fulfill its state quotas. Second, the local culture defines natural fishery resources as common property, but cultured fishery resources as private property. That the change of informal rules is historically contingent and sensitive to social context not only directly makes institutional change path

dependent, but also indirectly via its impact on formal rules, because the acceptance and enforcement of which are deeply dependent on informal rules.

This study also raise the issue regarding the role of social norms in explaining human behavior. Social norms are usually treated as one major motivational force driving human behavior.[72] This case has demonstrated that social norms can affect human behavior through additional channels. The shift of social norms, which define customary rights over fishery resources in the lake, ushered in new "mental models" for fishermen to perceive and judge fishing in the lake. Such a cognitive change induced fishermen to reconsider their behavior and to alter their attitudes toward "tough guys." The influence of social norms is thus principally on cognition instead of motivation.[73]

The emphasis on informal rules in institutional change helps us become more sensitive to and appreciative of the complex feature of economic transition. According to the established transition model, the alleged course is a linear movement from plan to market and from public to private ownership.[74] This over-simplified view has been challenged by empirical studies of the painful experience of reforms over the past decades. In his study of Hungary, Stark shows the emerging structure of property rights is characterized by "hybrid mixtures of public ownership and private initiatives", or "recombinant property" as he later calls.[75] In Poland, economic reforms have induced a "weak" ownership structure, in which resource ownership poorly matches coordination mechanisms.[76] In China, we have witnessed various hybrid forms of property rights supported by indigenous social institutions,[77] such as "vaguely defined property rights," "ambiguous property rights," and "insecure property rights."[78] This study joins this literature by showing the complex directions the property rights change may take in

economic transition. Rather than on a transition route to a well-defined end-state of private property, these economies are better seen as in a process of transformation, the path of which is uncertain and the destiny open.[79]

In addition, through examining the distributional and ideological conflicts between LLFF and fishermen, this study also sheds some light on the evolving tensions between the state and rural society in China's economic transition. In short, our analysis has unease relations with both the stereotype characterization of weak peasantry and its critics, as represented by Kelliher and Zhou.[80] First, having shown that peasant-fishermen could greatly frustrate LLFF and successfully neutralized its enforcement efforts, this study clearly lends support to the argument of powerful peasants. However, this case suggests that the source of power is far subtler. Kelliher emphasizes, “The real strength of the peasantry lays in great numbers.”[81] This study shows that the sheer number works, but it works much more effectively when fishermen are organized so that their number is transformed into and thus carries ideological weapon. Thus, this study does not corroborate the “unorganized power of peasants.”[82] As disclosed in our analysis, it is through challenging LLFF's legitimacy by mobilizing fishermen into “underground gang groups” and invoking the local ideology that peasant-fishermen succeeded in countervailing LLFF. When fishermen groups disappeared, peasant-fishermen lost their ideological weapon, and the power of number stumbled.

Moreover, our study suggests that peasants could readily demonstrate strong negative power because they were able to mobilize massive resistance against LLFF. However, they had far less positive power to influence policy-making in their favor, i.e., transforming their private agenda into state policy through bargaining with LLFF.

Lacking positive power, private fishermen could hardly push forward any plan to partition the lake with LLFF, or receive any compensation.

(To be inserted on page 17)

Table One. Changing Patterns of Consumption (n=24)

	Radio	Watches	Bicycles	Fans	TVs	Sewing Machines
1980	16 (66.7)	8 (33.3)	0	0	0	0
1985	24 (100)	24 (100)	20 (83.3)	15 (62.5)	8 (33.3)	2 (8.3)
1997	24 (100)	24 (100)	24 (100)	24 (100)	24 (100)	5 (20.8)

(Numbers in parentheses represent percentage)

[1] The literature on restructuring property rights in transition economies is too vast and expands too quickly to review. For a rich flavor of this literature, see Janos Kornai, "The Affinity between Ownership Forms and Coordination Mechanisms." *Journal of Economic Perspective* 4, no. 3 (1990): 131-47; Kazimierz Poznanski, "Restructuring of Property Rights in Poland: A Study in Evolution Economics." *East European Politics and Societies* 7, no. 3 (1993): 395-421; David Stark, "Recombinant Property in East European Capitalism." *American Journal of Sociology* 101, no. 4 (1996): 993-1027; David Weimer, ed. *The Political Economy of Property Rights: Institutional Change and Credibility in the Reform of Centrally Planned Economies* (New York: Cambridge University Press, 1997); Jean Oi and Andrew Walder, eds. *Property Rights and Economic Reform in China* (Stanford: Stanford University Press, 1999).

[2] Yoram Barzel, *Economic Analysis of Property Rights*, 2nd ed. (New York: Cambridge University Press, 1997); Douglass North, *Institutions, Institutional Change and Economic Performance* (New York: Cambridge University Press, 1990).

[3] Douglass North and Robert Thomas, *The Rise of the Western World* (New York: Cambridge University Press, 1973); Douglass North, *Structure and Change in Economic History* (New York: Norton, 1981); Nathan Rosenberg and L. E. Bridzell, *How the West Got Rich* (New York: Basic Books, 1986).

[4] Gerald Scully, "The Institutional Framework and Economic Development." *Journal of Political Economy* 96, no.3 (1988): 652-62; J. Torstensson, "Property Rights and Economic Growth." *Kyklos* 47, no. 2 (1994): 231-247; Stephen Knack and Philip Keefer, "Institutions and Economic Performance." *Economics and Politics* 7, no. 2 (1995): 207-27.

[5] Janos Kornai, *The Road to a Free Economy* (New York: Norton, 1990).

[6] North, *Institutions*; Andrei Shleifer, "Establishing Property Rights." In *Proceedings of the World Bank Annual Conference on Development Economics*, ed. by M. Bruno and B. Pleskovic (Washington, D.C.: World Bank, 1995); Weimer, *The Political*.

[7] Shleifer, "Establishing."

[8] Kornai, *The Road*.

[9] Even in public sectors there exist diverse routes to property rights reforms. Walder recognizes that privatization is one among many choices. See Andrew Walder, "Corporation Organization and Local Government Property Rights in China." In *Changing Political Economies: Privatization in Post-Communist and Reforming Communist States*, edited by V. Milor (Boulder: Lynne Rienner; 1994); Oi and Walder, *Property*. Stark stresses the feature of path dependence in property rights reforms, challenging the unquestioned universal validity of privatization in transition economies. See Stark, "Recombinant."

[10] It is well known that China's success in economic reforms is primarily due to the rise of new private sectors, particularly the township and village enterprises. Even in Russia and other transition economies, where privatization is the main reform strategy, new

enterprises rather than privatized ones perform better. See Richard Ericson, "Economics and the Russian Transition." *Slavic Review* 57, no. 3 (1998): 609-25.

[11] The booming literature is impressive on property rights transformation in Chinese reforms, see for example, Walder, "Corporation"; David Li, "A Theory of Ambiguous Property Rights in Transition Economies: The Case of Chinese Non-State Sector." *Journal of Comparative Economics* 23, no. 1 (1996): 1-19; Martin Weizman and Chenggang Xu, "Chinese Township and Village Enterprises as Vaguely Defined Cooperatives." In *Property Relations, Incentives and Welfare*, edited by John Romer (International Economic Association, 1997); Jiahua Che and Yingyi Qian, "Insecure Property Rights and Government Ownership of Firms." *Quarterly Journal of Economics* 113, no. 2 (1998): 467-96; Oi and Walder, *Property*. These studies, however, with the exception of Oi and Walder, only tangentially, if not at all, touch on the process of property rights transformation.

[12] Garrett Hardin, "The Tragedy of the Commons." *Science* 162 (1969): 1243-48. For two classic studies of open access fisheries, see H. Scott Gordon, "The Economic Theory of a Common Property Resource: the Fishery." *Journal of Political Economy* 62, no. 2 (1954): 124-42; Steven N. S. Cheung, "The Structure of a Contract and the Theory of Non-exclusive Resource." *Journal of Law and Economics* 13, no. 1 (1970): 49-70. Scholars have recently begun to differentiate between "open access" and "common property." See Elinor Ostrom, *Governing the Commons: the Evolution of Institutions for Collective Action* (New York: Cambridge University Press, 1990); Daniel Bromley, *Environment and the Economy* (Cambridge, MA: Basil Blackwell, 1991). According to Baland and Platteau, open access and common property

> are essentially different in so far as, in a common property, the community has the right to exclude non-members from the use of the resource. Under common property, the right of exclusion is assigned to a well-defined group. Under open access, a right of inclusion is granted to anyone who wants to use the resource.

See Jean-Marie Baland and Jean Platteau, *Halting Degradation of Natural Resource*, 29 (New York: Food and Agriculture Organization of the United Nations, 1996). In the light of this distinction, this study is actually concerned with open access resources rather than common property resources, though we continue to use the traditional metaphor, "the tragedy of the commons".

[13] We are interested in changes of practical or economic property rights, not legal rights. In this case, legal rules have hardly changed. For the distinction between practical and legal rights, see Barzel, *Economic*, 3.

[14] Ronald Coase, "The New Institutional Economics." *Journal of Institutional and Theoretical Economics*, 140, no. 1 (1984): 229-31; Thrainn Eggertsson, *Economic Behavior and Institutions* (New York: Cambridge University Press, 1990); North, *Institutions*; Erik Furubotn and Rudolf Richter, *Institutions and Economic Theory* (Ann Arbor: University of Michigan Press, 1997).

[15] Barzel, *Economic*.

[16] North and Thomas, *The Rise*, 5.

[17] Eggertsson, *Economic*, 247-77; Furubotn and Richter, *Institutions*, 104-114. Classical writings on property rights include Ronald Coase, "The Problem of Social Cost." *Journal of Law and Economics* 3, no. 1 (1960): 1-44; Armen Alchian, "Some Economics of Property Rights." *IL Politico* 30 (1965): 916-29; Harold Demsetz, "Toward a Theory of Property Rights." *American Economic Review* 57, no. 2 (1967): 347-59; North, *Structure*; Barzel, *Economic*.
[18] Demsetz, "Toward"; North and Thomas, *The Rise*.
[19] Gary Libecap, "Distributional Issues in Contracting for Property Rights." *Journal of Institutional and Theoretical Economics* 145, no. 1 (1989): 6-24; Gary Libecap, *Contracting for Property Rights* (New York: Cambridge University Press, 1989); Jack Knight, *Institutions and Social Conflict* (New York: Cambridge University Press, 1992).
[20] Demsetz, "Toward"; North, *Structure*.
[21] Demsetz, "Toward".
[22] North and Thomas, *The Rise*; Lance Davis and Douglass North, *Institutional Change and American Economic Growth* (New York: Cambridge University Press, 1971); Terry Anderson and P. J. Hill, "The Evolution of Property Rights: a Study of the American West." *Journal of Law and Economics* 18, no. 1 (1975): 163-79.
[23] Eggertsson, *Economic*, 250; Furubotn and Richter, *Institutions*, 108.
[24] Eggertsson, *Economic*, 262-71.
[25] North, *Institutions*, 52.
[26] Carl Dahlman, *The Open Field System and Beyond: a Property Rights Analysis of an Economic Institution* (New York: Cambridge University Press, 1980)
[27] This emphasis on actors in new institutional economics is attributable to Coase. See Coase, "The New" and *The Firm, The Market, and The Law* (Chicago: University of Chicago Press, 1988). Rational choice sociologists have traditionally stressed action and agency. See, for example, George Homans, "Bring Men Back in." *American Sociological Review*, 29, no. 6 (1964): 809-18; Michael Hechter, ed. *The Microfoundations of Macrosociology* (Philadelphia: Temple University Press, 1983); James Coleman, "Social Theory, Social Research, and a Theory of Action." *American Journal of Sociology* 91, no. 6 (1986): 1309-35.
[28] Libecap, "Distributional"; *Contracting*.
[29] Libecap, "Distributional", 22.
[30] Guido Calabresi, "The Pointless of Pareto." *Yale Law Review* 100, no. 2 (1991): 1211-37; Steven N. S. Cheung, "The Transaction Costs Paradigm," *Economic Inquiry* 36, no. 4 (1998): 514-21.
[31] Libecap, *Contracting*.
[32] Knight, *Institutions*, 40.
[33] Jack Knight and Itai Sened, eds. *Explaining Social Institutions* (Ann Arbor: The University of Michigan Press, 1998).
[34] Andrew Schotter, *The Economic Theory of Social Institutions* (New York: Cambridge University Press, 1981).
[35] Ning Wang, "Transaction Costs and the Structure of the Market." *American Journal of Economics and Sociology* 58, no. 4 (1999): 783-805.

[36] See Clifford Geertz, *The Interpretation of Cultures* (New York: Basic Books, 1973). But Popper proposed a different view on subjectivity in social sciences. See Karl Popper, "The Logic of Social Sciences." In *Positivist Dispute in German Sociology*, edited by Theodor Adorno (New York: Harper, 1976).

[37] Two factors discouraged peasants on the south side to continue fishing in the lake. First, close to Jingzhou, they had much more alternative opportunities. Secondly, since LLFF was located on the same side, these peasants could be quite effectively deterred from fishing in the lake.

[38] Jon Elster, *Nuts and Bolts for the Social Sciences*, 4-7 (New York: Cambridge University Press, 1989)

[39] Jiangling County Record (1992), 159.

[40] Hardin, "The Tragedy."

[41] Ostrom, *Governing*; Bromley, *Environment*; Baland and Platteau, *Halting*.

[42] Wang, "Transaction".

[43] Victor Nee, "Peasant Household Individualism." In *Chinese Rural Development: The Great Transformation*, 164-90, edited by William Parish (Armonk, NY: Sharpe, 1985).

[44] Best bundles of durable goods are represented by the so-called "three big items" and "three new big items." In this region, the bicycles, radio and watch constituted the "three big items" in the 1970s and early 1980s. They were later gradually replaced by the "three new big items:" the electrical fan, TV, and sewing machine. These consumer goods once commanded the most popularity among rural households.

[45] One may counter-argue that the change of consumption pattern is a mere consequence of the increase of income. However, no one can deny that the change of consumption pattern has a recursive effect, i.e., generating more demand for cash. Moreover, it is contagious. The change of consumption pattern in one group has demonstrating or rippling effects and stimulates others to follow the suit. As a result, the change of preference put dramatic pressures on fisheries, a main source of cash income for peasants.

[46] Anderson and Hill, "The Evolution"; Barzel, *Economic*.

[47] Demsetz, "Toward".

[48] Libecap, *Contracting*; Knight, *Institutions*.

[49] Peter Berger and Thomas Luckman, *The Social Construction of Reality* (New York: Doubleday, 1966).

[50] During interviews, private fishermen revealed that their side had three death records and various cases of physical abuse. While LLFF officials refused to talk about this issue, private fishermen acknowledged that they also fought back hard against LLFF patrolmen.

[51] This strategy reminds us of the "weapon of the weak." When political channels are severely blocked and private individuals cannot articulate their interests and complaints, they usually resort to feigned ignorance, false compliance, verbal threats, mass defiance, and theft, to mitigate or deny formal institution. See James Scott, *Everyday Forms of Resistance* (New Heaven: Yale University Press, 1985).

[52] Mark Granovetter, "Threshold Models of Collective Action." *American Journal of Sociology* 83, no. 6 (1978): 1420-43.

[53] William Riker, "The Experience of Creating Institutions: the Framing of the United States Constitution," 121, in *Explaining Social Institutions*, 121-44, edited by Jack Knight and Itai Sened (An Arbor: University of Michigan Press, 1995).
[54] Karl Popper, *The Poverty of Historicism* (Boston: Beacon Press, 1957); Fredick Hayek, "The Results of Human Action but Not of Human Design." In *Studies in Philosophy, Politics, and Economics* (Chicago: University of Chicago Press, 1967).
[55] Robert Merton, 1936. "The Unanticipated Consequences of Purposive Social Action." *American Sociological Review* 1, no. 6 (1936): 894-904; Raymond Boudon, *The Unintended Consequences of Social Action* (New York: Macmillan, 1982).
[56] Unfortunately we do not have quantitative data to illustrate this trend. During interviews LLFF officials were uncomfortable to talk about their employees' uncivil treatment of caught fishermen. Yet fishermen's resentful accounts clear indicate that LLFF patrolmen took advantage of the disintegration of gang groups and took harsh measures to punish caught fishermen.

> They (LLFF patrolmen) enjoyed patrolling very much, intercepting us in the lake, taking away our catch and nets.
>
> When they (LLFF patrolmen) caught us (fishermen) in the lake, they would take away everything they could, fish, nets, and boats. And they brought us to their private house of detention, and then ask our families to pay fines before releasing us. Our family members had nothing to do but to pay the fines as soon as possible. Otherwise they would beat us.

[57] Though I do not have data to show how many peasant-fishermen shifted to pond fishery, the percentage was very high. All but one of the 24 fishermen informants had engaged in pond fishery. Since the fixed supply of ponds usually could not meet the demand, peasants took their turn to rent ponds. This practice not only made peasants who were currently in pond fishery respect secure property rights, but also warned those who were waiting to rent ponds not to behave short-sightedly.
[58] It is true that in the early1980s, LLFF could not recoup its costs, as LLFF officials acknowledged in interviews.
[59] This is known as the "soft budget constraint," a built-in feature of state-owned enterprises in the socialist economy. See Janos Kornai, "Soft Budget Constraints." *Kyklos* 39, no. 1 (1986): 3-30.
[60] As Emile Durkheim put it,

> "A social fact is to be recognized by the power of external coercion which it exercises or is capable of exercising over individuals, and the presence of this power may be recognized in its turn either by the existence of some specific sanction or by the resistance offered against every individual effort that tends to violate it."

In Michael Hechter, *The Principles of Group Solidarity*, 15 (Berkeley: University of California Press, 1987). For a recent articulation, see Jean Ensminger and Jack Knight,

"Changing Social Norms: Common Property, Bridewealth, and Clan Exogamy." *Current Anthropology* 38, no. 1 (1997): 1-24.
[61] Another factor also played a role. It is not unexpected that most of these remaining fishermen were recalcitrant in character. In the past, they led the combat against LLFF and gained recognition from fellow fishermen. However, after the gang groups were disbanded, they became increasingly violent and threatening even towards their former fellows. For example, they occasionally turned to their former fellow fishermen's fishing ponds when opportunities allowed. As a result, fishermen who engaged in pond fishery even became cooperative with LLFF officials to get rid of these "tough guys."
[62] Edward Shils, "Ideology." In *International Encyclopedia of the Social Sciences*, Vol. 7, 66-76, edited by David Sills (New York: Macmillan and Free Press, 1968). For a recent exposition of ideology, particularly its role in economics, see Arthur Denzau and Douglass North, "Shared Mental Models: Ideologies and Institutions." *Kyklos* 47, no. 1 (1994): 3-31.
[63] For a general exposition of the relation between social norm and social meaning, see Cass Sunstein, "Social Norms and Social Roles." The Coase Lecture delivered on November 24, 1995, The Law School of University of Chicago; Lawrence Lessig, "The Regulations of Social Meaning." *The University of Chicago Law Review* 62, no. 2 (1995): 943-1045.
[64] Jiangling County Record (1992): 257.
[65] Kenneth Arrow, *The Limits of Organization*, 72 (New York: Norton, 1974); Margaret Levi, *Of Rule and Revenue* (Berkeley: University of California Press, 1988).
[66] One may be quick to point out that the "sour grape" mechanism, as exposed by Elster, was at work here. See Jon Elster, *Sour Grapes* (New York: Cambridge University Press, 1983). That is, after their access to fisheries was denied due to LLFF's increased enforcement efforts, fishermen chose to play down and even deny their desire for fisheries, thus reducing the conflict between the reality and their desire. Two considerations direct me away from such an explanation, however. First, if the "sour grape" were indeed the working mechanism, we would expect fishermen who had gone through such a psychological self-denial to stop fishing in the lake. But they were unlikely to take actions to denounce other fishermen's continuous fishing in the lake. Secondly and more importantly, if fishermen changed to deny their desire for fishing in the lake in the face of LLFF's increased enforcement efforts, they would likely to return to the lake after LLFF reduces its patrol efforts. For a critique of Elster's argument, see Tore Sandeven, "Autonomy, Adaptation, and Rationality – A Critical Discussion of Jon Elster's Concept of '"Sour Grapes.'" *Philosophy of Social Sciences* 29, no. 1 (1999): 3-31.
[67] Elster, *Nuts*; Bunge, "Mechanism;" Hedstrom and Swedberg, *Social*.
[68] Hayek, "The Results."
[69] Eggertsson, *Institutions*, 19.
[70] Douglass North, "Five Propositions about Institutional Change." In *Explaining Social Institutions*, 15-26, edited by Jack Knight and Itai Sened (Ann Arbor: The University of Michigan Press, 1995).
[71] Michael Polanyi, *The Tacit Dimension* (Garden City, NY: Doubleday, 1967).

[72] Social scientists are all too familiar with the entrenched tension between *homo economicus* and *homo sociologicus*. See, for example, Jon Elster, "Social Norms and Economic Theory." *Journal of Economic Perspectives*, 3, no. 4 (1989): 99-117. In this ever-lasting debate, social norms and interests are two competing forces driving human behavior.

[73] Denzau and North, "Shared".

[74] Peter Murrell, "Can Neoclassical Economics Underpin the Reform of Centrally Planned Economies?" *Journal of Economic Perspectives* 5, no. 4 (1991): 59-76.

[75] David Stark, "Co-existing Organizational Forms in Hungary's Emerging Mixed Economy." in *Remaking the Economic Institutions of Socialism*, edited by Victor Nee and David Stark, 137-68 (Stanford: Stanford University Press, 1989); Stark, "Recombinant".

[76] Poznanski, "Restructuring."

[77] Victor Nee, "Organizational Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China." *Administrative Science Quarterly* 37, no. 1 (1992): 1-27; Walder, "Corporation"; Lin, "Local"; Oi and Walder, *Property*.

[78] Weitzman and Xu, "Chinese"; Li, "A Theory;" Che and Qian, "Insecure."

[79] Nan Lin, "Local Market Socialism: Local Corporatism in Action in Rural China." *Theory and Society* 24, no. 2 (1995): 301-54; Stark, "Recombinant".

[80] Daniel Kelliher, *Peasant Power in China* (New Heaven: Yale University Press, 1992); Kate Xiao Zhou, *How the Farmers Changed China: Power of the People* (Boulder: Westview Press, 1996).

[81] Kelliher, *Peasant*, 259.

[82] Zhou, *How*.