Analyzing Land Readjustment

Economics, Law, and Collective Action

EDITED BY

Yu-Hung Hong and
Barrie Needham

WITH A FOREWORD BY WILLIAM A. DOEBELE

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To William A. Doebele

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FOREWORD

This book is an impressive contribution to the literature of land readjustment. Before the 1970s, the use of land readjustment for urban development was virtually unknown in Western professional literature other than in Australia, where it was known as *land pooling*. Although the full story is more complex, following is a brief sketch of how land readjustment evolved from virtual anonymity to the level of sophistication evident in the chapters in this book.

On a chilly day in January 1975, I was standing on the south side of the River Han outside the capital city of Seoul, South Korea, gazing at a broad expanse of rice paddies, dry fields, and villages in an area called the Yeongdong district. Here and there bulldozers were already creating what was to become the infrastructure for the so-called second Seoul. The threat of another North Korean invasion made new urban development south of the river seem imperative. The Yeongdong then beginning to unfold is today one of the vibrant centers of the South Korean capital.

The most moving thing on that January day was not the potential for Yeongdong's physical achievement, but rather the assurance by South Korean officials that the new city would be largely self-financing. In Henry George's terms, the socially created increments in land values were to be recovered, as an integral part of the physical development process, to pay the costs of installing infrastructure and essential public amenities.[1]

This was my first exposure to land readjustment, and it was a dramatic one. Not only was the process being used to produce a second Seoul, but it was also being applied in many projects throughout the Seoul metropolitan area as well as in major development projects in other Korean cities. Moreover, whole satellite new towns were being planned to rationalize national urban development and to relieve pressures on core cities.

South Korea was just emerging from a devastating civil war. Seoul had

[1]In the eighteenth century, the developers of Washington, DC, were also faced with a large area of rural land and almost no funds to develop it. In response, they devised a mechanism very like land readjustment. For details, see Doebele, William A. 1982. *Land readjustment: A different approach to finance urbanization.* Lexington, MA: Lexington Books, 8–9.

changed hands four times in the fighting. The nation lacked the financial resources necessary for conventional city building; it hoped to use land readjustment to carry out its ambitious plans at low capital cost. The key premise was that when agricultural land was subdivided into urban plots and furnished with a road network and other basic urban services, the square meter value would be substantially increased. Because of this increase in value, a substantial percentage of the original rural land could be taken for public purposes while the original landowner, now the owner of a smaller but serviced urban lot, would still have property of the same or greater value.

Specifically, a portion of the rural plot would be used (1) to provide areas necessary for roads, schools, parks, and other public uses and (2) to provide cost-equivalent land—that is, land that could be sold on the private market for an amount equal to the cost of installing the infrastructure. There would be no need for post-development taxation to recover capital costs.

Henry George had pointed out that the process of urbanization is wealth producing, yet public agencies responsible for capitalizing the construction of necessary services seldom have sufficient capital resources. Land readjustment appeared to be a perfect solution to this paradox. It had been practiced for many decades in Germany and The Netherlands to readjust agricultural parcels for greater efficiency. It had been transferred to Japan and applied there for rebuilding Tokyo after the great 1926 earthquake, and it was used for urban development in South Korea and Taiwan (Republic of China).[2]

In 1972 Robert McNamara, former U.S. secretary of defense and newly appointed president of the World Bank, declared that the bank's first priority should be the alleviation of urban poverty in the third world. In carrying out this directive, the bank's staff quickly realized that urban poverty was concentrated in the squalid slums and squatter settlements surrounding every third world city. The alleviation of poverty was inevitably linked to the improvement of housing and basic urban services.

The difficulty was that providing urban services in the face of massive urban migration was an enormous financial challenge. In some of the

[2]The historical sequence seems to have been that the basic principles of land readjustment were established in Germany and then transferred to Japan as part of the legal reforms following the Meiji Restoration. They were then taken to Korea and Taiwan when these were Japanese colonies. Rachelle Alterman points out in chapter 3 that land readjustment was known and widely used in Israel without much international attention.

largest cities, population was increasing by 1,000 persons per day. The problem was threefold: (1) to assemble fragmented rural landholdings into areas that could be developed in a unified way; (2) to provide a plan for the consolidated area that would permit harmonious integration with the roads and infrastructure of the existing city; and (3) to find an effective mechanism for capturing the increased capital values created by these improvements.

In 1974 the World Bank assigned a young staff economist, Dr. Orville Grimes, and this writer to investigate three practices that might be relevant. The first was the well-known land banking system that had produced high-quality urban growth in Sweden at a relatively low public cost. The second was the institution known as *valorizations*, a sophisticated form of special assessment taxation that had transformed Bogotá, Colombia—particularly its major thoroughfares—at modest public expense. The third assignment was to report on the system of land readjustment that had great success in the rebuilding of urban Japan after the massive aerial bombings of World War II and in recovery from Korean War devastation in South Korea.

Aided by the insights of an able local expert, Dr. Myong-Chan Hwang, Grimes and I were immediately intrigued by the potential of a method of urbanization that promised to assemble, plan, and redevelop land effectively on a large scale and to install infrastructure, all with minimal budgetary impact.

Land readjustment seemed to be the most ingenious method yet devised for the capture of socially created value for public purposes. Unlike Henry George's single tax and most other instruments, it executed the recapture while the rural-urban transformation was taking place, eliminating the unpopular task of extracting money from landowners after the process was complete. It seemed that a mechanism capable of operating on a scale commensurate with the pace of urbanization in third world cities and with a built-in self-financing capability had finally been found.

Responding to these possibilities, the Lincoln Institute of Land Policy and the then Land Reform Institute sponsored an international conference in Taiwan in June 1979. Experts from a number of countries in which rural or urban land readjustment had been practiced prepared papers to provide an information base from which the concept could be launched to a world audience. Of special importance was the attendance of Harold Dunkerley, a senior staff member of the World Bank, who had been assigned to give special attention to the issues of urban land.

The conference settled on *land readjustment* (rather than *land consolidation*) as the preferred term, although Raymon Archer, an Australian who was teaching at the Asian Institute of Technology in Bangkok, preferred to stick to the Australian term, land pooling. In 1982 the results of the conference were incorporated into a book, *Land Readjustment: A Different Approach to Financing Urban Development* (1982).

Attempts were made to have land readjustment featured at the first major United Nations meeting on urbanization in Vancouver in 1976, but because the agenda had already been set, information had to be spread by informal word of mouth. Nevertheless, the basic concept of land readjustment began to appear in widely read publications of the United Nations Development Program (UNDP), the World Bank, and similar organizations by the 1980s, and land readjustment was recognized by knowledgeable professionals everywhere. Pilot projects—in many cases implemented by graduates of the Asian Institute of Technology in Bangkok, where Archer was a professor—were carried out in Indonesia, Thailand, Nepal, Malaysia, and other countries with varying degrees of success. However, in none of these countries did land readjustment evolve into a national policy.

In October 1982 a major international conference was held in Nagoya focused on detailing the Japanese system and its possible applicability to Southeast Asia. Technical assistance in land readjustment was made part of the Japanese foreign assistance program. Despite the high quality of papers and discussions at the conference, the results were largely informational rather than productive of a specific program of action.

Land readjustment for large-scale urban development thus remained largely untested outside of the Asian applications mentioned.[3] It implied a redrawing of boundaries and adjustments of property rights by a public agency, a process deeply suspect in many countries. Moreover, while its mechanism appeared to be simple and straightforward, in fact it depended, among other things, on the existence of an objective and trusted body of professional assessors that was not available in third world countries. The World Bank therefore opted to support more conservative approaches, such as the so-called Sites and Services Program, that hoped to lower infrastructure costs by reducing standards to a minimum and shifting the lion's share of the costs of housing construction to the occupants themselves.

[3]Land readjustment for rural purposes was another story. As Needham points out in chapter 5 (citing Brinkman), "More than two-thirds of the total agricultural land of The Netherlands has been consolidated, reallocated or readjusted, and improved or reclaimed during the second half of the twentieth century."

Meanwhile, a number of energetic individuals—among them Frank Schnidman—were attempting to adopt land readjustment to solve U.S. problems. For example, in the 1950s and 1960s, tens of thousands of acres of Florida land had been sold, almost entirely to persons outside the state, with no provision for infrastructure and in subdivision patterns totally inappropriate for actual development. These subdivisions, especially numerous in the Fort Myers area, were standing in the path of urban growth by the early 1980s. Land readjustment was seen as a means of addressing this problem. By 1984 many conferences and classroom simulations were being held in Florida. A monthly newsletter, the *Platted Lands Press*, was published to keep track of all land readjustment activities, which by 1985 were also occurring in California and contemplated for Colorado, New Mexico, and elsewhere. In Hawaii Professor Luciano Minerbi urged action.[4] In April 1986, responding to these activities, the Lincoln Institute of Land Policy cosponsored the first U.S. gathering of international land readjustment experts at Fort Meyers, Florida.

However, in the United States, as in many third world countries, existing real estate interests saw land readjustment as a radical and even threatening concept. Supporting constituencies could not be built despite energetic attempts to pass enabling legislation in California and Florida. These states preferred to deal with the flood of urban development by means of elaborated systems to pass on most of the costs of local infrastructure to private developers, who adjusted lot sizes and prices accordingly.

In March 2002 the Lincoln Institute decided to assess the current status of land readjustment by sponsoring a workshop entitled "Tools for Land Management and Development: Land Readjustment." This book is an indirect outcome of that conference.

What conclusions are to be drawn from this abbreviated history? First, it is obvious that the potential of land readjustment can be viewed in several ways. In its early years land readjustment was touted as a means of cost recovery. However, cost recovery to pay for infrastructure based on the redrawing of property boundaries and the reduction of sizes of ownership by a public or private third party was too radical to be accepted in some countries, even if owners received equivalent values in the end.

[4]Minerbi, Luciano. 1987. Attempts to promote land readjustment in Hawaii. *Land Assembly and Development* 1 (1):15–26.

Interestingly, imaginative new applications of land readjustment may be emerging in the People's Republic of China, where concepts of property rights in real estate are currently in flux (see Li and Li in chapter 6). In chapter 3, Alterman mentions that cost minimization is still important in the use of land readjustment in Israel.

More recently, emphasis has shifted to land readjustment's virtues for solving problems of land assembly for urban development and redevelopment—a main theme of this book. However, it seems important to avoid characterizing land readjustment as being in one category or another, but instead to keep all of its possibilities in mind.[5] Second, it appears that land readjustment is now a recognized tool of land management despite the limited situations in which it may be applicable. Third, like so many economic models, land readjustment works perfectly in theory, but can break down when confronted with the thorny realities of the conservatism of entrenched political and economic interests.

The dramatic successes in Japan and Korea took place in the context of rebuilding cities shattered by devastating wars. Although Sorensen effectively points out the deficiencies in the "culture of cooperation" theory in chapter 4, the immediate psychological aftereffects of World War II may have resulted in popular understanding in both countries that sacrifices were necessary to reestablish their role in the world. Once this was achieved, normal patterns of individual self-interest reasserted themselves.[6] (Sorensen also rightly observes that land readjustment in Japan has been popular largely because of the lack of other mechanisms.[7])

As noted, emphasis has now shifted (although not entirely) to another aspect of land readjustment—its virtues for solving problems of land assembly. This book makes a major contribution to the subject in two ways. First, the opening and final chapters by Hong tie land readjustment to a larger theoretical literature in ways never done before. Second, the other articles are insightful case studies of the practical advantages and difficulties of using land readjustment as a key mechanism for assembling land and/or rights to land for urban development and redevelopment.

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[5]In chapter 5 Needham identifies four different types of land readjustment in The Netherlands, and in chapter 6 Li and Li describe the possibilities of a vertical application of land readjustment.

[6]One example in Nagoya was the moving of an old cemetery to carry out an important land readjustment project. This writer was told that moving the cemetery would have been culturally impossible except in the context of the almost complete destruction of the city ("the Pittsburgh of Japan") by American bombing.

[7]One of Sorensen's telling points is that when land readjustment must be done through consensual methods, it can become one of the main activities of local planning departments, using as many personnel as all other city planning activities.

Where do we go from here? After some 30 years of personal involvement with land readjustment, I believe that a toolbox analogy may be applied. Every profession provides its practitioners with a set of tools: tested actions and procedures to apply to specific problems. Doctors have established procedures to deal with hundreds of sets of symptoms; lawyers have established procedures for a panoply of legal situations, and so on. Sometimes these tools go unused for long periods of time before a relevant problem emerges and requires their use.[8] The tool of land readjustment is unlikely to have frequent application outside countries where it is not already well established. It requires strong incentives for participation.[9] Given the proper context, it can be useful. For example, in chapter 7, Lynne Sagalyn provides a thoughtful analysis of how a variation of land readjustment known as *Solidere* was used with great effectiveness in Beirut, Lebanon.

Training in the basic principles of land readjustment should be part of the education of every city planner, real estate development professional, and other persons engaged in making policy for land and urban development. Thanks to the continued interest and support of the Lincoln Institute of Land Policy, a solid body of literature now provides the necessary intellectual foundation for such training. This volume is a major addition to the literature. As a text and reference, it will lead to more informed and wider applications of land readjustment in complex situations that require solutions more efficient and equitable than those provided by any other instrument now available.

William A. Doebele
Professor Emeritus
Harvard University

[8]On a group safari in which I participated many years ago, one of the African drivers developed an acute eye disability. When an elderly doctor in the group, who had practiced exclusively in rural Pennsylvania, examined the driver, he recalled that a lecturer in his medical school had mentioned this specific tropical malady and its remedy almost 50 years earlier. The doctor applied the remedy, and the driver quickly recovered. This diagnosis and remedy were tools that had lain unused in the doctor's professional toolbox for many decades and that proved to have great practical value when the relevant problem finally presented itself.

[9]Two of the most important incentives are the presence of a robust and rising land market and an atmosphere of good will and trust. Needham, in chapter 5, has an excellent analysis of other essential institutional and economic conditions.

PREFACE

Great effort has been devoted to the precise delineation and assignment of the legal and physical boundaries of private property. Yet, issues of unifying or assembling private property rights for comprehensive urban redevelopment remain understudied. Today, public and private land developers in Great Britain and the United States commonly describe the process of land assembly for urban renewal as conflict-ridden and the associated problems as intractable. In dealing with land assembly issues, scholars and practitioners usually assume that there are only two solutions: voluntary exchange or public intervention in the form of expropriation. Neither approach necessarily leads to efficient and equitable outcomes. Owing to the belief that there must be other options, a group of scholars, many of whom have contributed to this volume, have embarked on a journey to search for viable alternatives. This book is about one possibility generated from this collective endeavor: *land readjustment*.

The idea of using land readjustment to assemble land for urban or rural redevelopment is not new, although it is not well-known to policy makers and practitioners in many countries, including Great Britain and the United States (Doebele 2002). In a nutshell, land readjustment gives all affected property owners in a redevelopment district the power, by majority vote, to approve or disapprove the transfer of land rights to a self-governing body for redevelopment. Instead of buying out all existing property owners or using eminent domain, the agency invites property owners to become stakeholders and to contribute their real assets to the project as investment capital. In return, the agency promises to give each owner a land site of at least equal value in the vicinity of the original site upon the completion of the redevelopment. After all properties in the district are assembled, the combined land sites are resubdivided and serviced according to a master plan designed and approved by the stakeholders. With the reconfiguration of the land lots into sizes and shapes that are more favorable for updated development, the urban renewal plan can be carried out comprehensively. In theory, this method does not require the agency to have substantial upfront capital for buying out existing owners or government assistance to acquire land compulsorily.

This approach has been widely practiced in some industrialized countries, such as France, Germany, Israel, Japan, The Netherlands, South Korea, and Taiwan (Doebele 1982; Larsson 1993). Policy makers in some developing countries, such as China, Indonesia, Malaysia, and Thailand, have also been experimenting with similar ideas (Archer 1999; see chapter 6 in this volume). In addition, Bergeson and Glickfield (1987), Larsson (1997), Minerbi (1987), Minerbi et al. (1986), Schnidman (1987), and Sorensen (1999) have written books and papers on the subject. Books by Doebele (1982) and Larsson (1993) thoroughly describe the technical aspects of implementing land readjustment projects in different countries.

The extensive application of and research on land readjustment notwithstanding, the transferability of the idea to countries where policy makers and analysts are unfamiliar with the concept is not without skeptics. Past attempts to introduce land readjustment legislation to the United States were unable to attract much attention from policy makers and practitioners (Liebmann 1998; Minerbi 1987; Shultz and Schnidman 1990). That may have been partly a result of overreliance on law to introduce land readjustment and partly the lack of urgency to search for alternative land assembly methods.

In the United States, the recent Supreme Court ruling on *Kelo et al. v. City of New London*, 545 U.S. 469 (2005), has revealed a growing dissatisfaction among lawyers and the public with government attempts to stretch the limits of the public use maxim. At the core of the controversy is the extent to which the government can exercise its power of eminent domain to transfer private property from one group of owners to another for private development. This practice has increased rapidly in many local jurisdictions where promoting local economic growth is now considered a government function. The attempt to create employment opportunities and mobilize tax collections for the local community therefore legitimizes the use of the state power to take private property. As illuminated by *Kelo*, the U.S. Supreme Court is divided in its opinions about the use of eminent domain for fostering economic development. Although the Court affirmed the legitimacy of the government's exercise of eminent domain in this case by a five-to-four margin, the ruling motivated legislators in some states—such as Delaware, Alabama, and Texas—to pass laws restricting the state's power. Subsequently, lawmakers in many other states followed suit or promised to do so. Similarly, in Great Britain there have been ongoing reviews of the Compulsory Purchase Order process since 1997. In 2001 the Law Commission found

that the Compulsory Purchase Order is "cumbersome and convoluted."[1] The complex process of Compulsory Purchase Order not only makes land redevelopment financially unattractive to private investors but also fails to produce satisfactory resolutions for property owners (Connellan 2002). These examples from the United States and Great Britain point to the widespread nature of discontent with the use of the state power to coerce land transfers. Ideas and case studies presented in this book provide materials for evaluating land readjustment as an alternative.

This book aims to advance the research on land readjustment. Instead of focusing solely on legal or technical aspects, it fills a gap in the literature—focusing on the institutional settings in which individuals would be willing to cooperate in land readjustment. In assembling land for redevelopment, property owners and other interested entities must devise a system in which collective action can be fostered and the benefits and costs of land assembly shared equitably among involved parties. The case studies in this book illustrate the need for more than merely an appropriate legal framework within which negotiations between property owners and the land assembler can be conducted and agreements enforced. Organizing a land readjustment project requires the consideration of: (1) existing public organizations and their reputations; (2) interests represented by different involved parties; and (3) trust in the other parties and in public agencies. These are the focuses of the book.

It seems useful to state two matters explicitly at the outset. First, this book does not advocate land readjustment as the only land assembly method in all circumstances. Nor does it suggest abolishing eminent domain. The current state of knowledge of land readjustment does not allow anyone to draw such conclusions. The reality is that no method of reconfiguring property relations can be immune from controversy. Assembling land using land readjustment can be contentious and time-consuming; this technique is not a panacea for all land assembly problems. Its value is as an additional option when preconditions are present.

State power to take private property for a public use with just compensation will continue to be important when negotiations between private individuals and the government break down or when land resources are not fully utilized. In these situations, the taking of land is unquestionably for the well-being of the public at large, and eminent domain may be best suited to handle disputes arising from land assembly. For

[1]This description of the Compulsory Purchase Order by the Law Commission was cited in Connellan's (2002) report.

this kind of land assembly, land readjustment may be required only when other options are unavailable or not viable (see examples in chapters 3 and 4).

The potential of land readjustment for land assembly in the United States and Great Britain is greatest when the transfer of private property from a group of individuals within a community to one or more private entities is required to facilitate economic development. In this kind of redevelopment project, the use of eminent domain or compulsory purchase is under close public scrutiny and is most controversial, thus opening the possibility of experimenting with land readjustment.

Second, although the tools of analysis employed in some chapters are drawn from new institutional economics and game theory, the ideas presented there are as relevant to policy makers and urban planners as they are to economists and political scientists. The authors have, therefore, avoided using a diagrammatic-mathematical presentation style. We hope that the ideas are clear and convincing, whatever the reader's disciplinary background.

There is an endless list of people to whom we are greatly indebted, and whose support and encouragement have made this publication possible. We thank the former president of the Lincoln Institute of Land Policy, H. James Brown, for encouraging us to reexamine materials generated from a 2002 conference, organized by William A. Doebele and Yu-Hung Hong and supervised by Rosalind Greenstein, to determine whether the conference papers could be edited into a proceeding. Four chapters of this book originated at the 2002 meeting. We are also grateful for the continuing support of the current president of the Lincoln Institute, Gregory K. Ingram, who reviewed the early draft of the manuscript and suggested useful additions and modifications. Ann LeRoyer, Senior Editor and Manager of Publications, played an instrumental role in ensuring that all involved parties continued to attend to their responsibilities in this multiple-year project. Without the consistent support and guidance from the key personnel of the Lincoln Institute, this book could not been written.

Our main debt is of course to the contributors to this volume. We were exceptionally fortunate to be able to work with such experienced scholars, who not only come from different countries but also from a variety of backgrounds, including law, planning, public administration, and real estate economics. This diverse mix of scholars gave rise to invaluable insight into the institutional requirements for organizing land readjustment.

A team of dedicated people worked behind the scenes to make this book readable and enjoyable. They include the project manager, Alison Fields; copyeditor, Sybil Sosin; and designers, Janis Owens and Peter Holm; all of whom worked under the direction of Emily McKeigue, Assistant Editor and Assistant Manager of Publications at the Lincoln Institute. We appreciate their editorial expertise and professional help.

Last, but not least, we would like to dedicate this book to William A. Doebele, who introduced the concept of land readjustment to American scholars and practitioners over twenty-five years ago. Since then, he has been researching industriously the transferability of the technique to the United States and other countries. Without his work and the work of those stimulated by his scholarship and enthusiasm, we would never have been able to generate the ideas presented in this volume. His immense contributions to and leadership in this field of study are gratefully acknowledged.

Yu-Hung Hong
Barrie Needham

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PART

I

Introduction

CHAPTER

1

Assembling Land for Urban Development

Issues and Opportunities

YU-HUNG HONG

Redeveloping land from an outdated and suboptimal form to its highest and best use can be wealth enhancing for the owner and society.[1] Hence, landowners and the community should welcome land redevelopment in their neighborhood. This logic, however, does not correspond with reality. In most urban revitalization projects, some landowners refuse to transfer their properties to the redevelopment agency because of different preferences and/or disagreements over the distribution of the land value increment. Because the potential benefits of urban renewal cannot be fully realized unless fragmented land sites are assembled and then reparceled for comprehensive redevelopment, lack of cooperation by a few landowners can hinder the entire land assembly process.

Public and private developers have long considered the difficulty of assembling land to be a major impediment to land redevelopment, especially in urban centers where property ownerships are segmented. At best, conventional land assembly methods, most noticeably voluntary exchange and eminent domain,[2] have produced suboptimal outcomes in terms of efficiency and equity; at worst, they have thwarted urban revitalization initiatives (Connellan 2002). In this book, many authors argue

[1] The highest and best use of a piece of land is the most profitable use at a specific time, given legal, physical, and financial constraints (Eckert, Gloudemans, and Almy 1990).

[2] The power of the state to appropriate private property for a public use is referred to as *compulsory purchase* in Great Britain and New Zealand, as *compulsory acquisition* in Australia, and as *expropriation* in Canada, South Africa, and Israel. These terms are used interchangeably.

that there may be a third way. I call it *instigated property exchange*—a concept applied in a land assembly method commonly known in the literature as *land readjustment*. Using the term *instigated property exchange* broadens the scope of analysis to include innovative land assembly methods that are similar to land readjustment but do not follow its conventional structure exactly.

In instigated property exchange, the transaction involves land for land (or property rights) exchanges and is induced by collective action or, as a last resort, by the threat of expropriation. This type of exchange is sometimes necessary in land assembly because individual owners who want to maximize self-interest could hold out, thereby impeding welfare-enhancing transactions. Instigated property exchange (or generally, land readjustment) is an institutional arrangement for persuading owners to negotiate collectively property transfers with land developers. The collective action is facilitated by a set of formal rules (constitution and legislation) and informal constraints (norms, conventions, and codes of conduct).[3]

This chapter explains why the third approach is needed, how it can be implemented, and what suppositions of the proposed method will be examined in the following chapters. The first section of the chapter illustrates why the market mechanism sometimes fails to coordinate voluntary exchange of property when strategic behavior of involved parties is present. The second section examines the role of law in resolving land assembly disputes, underscoring both the efficiency and equity concerns of this approach. The third section shows how land readjustment can facilitate property exchanges, highlighting several conjectures for empirical tests. The balance of the chapter places the topics of subsequent chapters in the context of institutional design for instigating property exchanges through land readjustment.

Impasse of Land Assembly

It is well known that the size of a land parcel is one of the key determinants of land value (Evans 2004). When the boundary of a parcel was first established, it was probably based on the subdivision of all the land in a neighborhood, guided by the market forces and zoning regulations applying at that time. Once the boundary was fixed, it would remain the

[3] See North (1990) for the definition of institutions.

same for a long time. However, market conditions and zoning may change. When they do, the historical boundary of the land parcel must be altered to redevelop the land to its highest and best use. This procedure may entail the consolidation of several land sites, which sometimes is difficult.

Suppose that two pieces of land, Lot A and Lot B, are adjacent to each other. Due to past subdivision and zoning, both have been used for a low-density residential development, and a single-family detached house has been erected on each site. As the population in the neighborhood grows, the city has gradually raised the development density, allowing more houses to be built to meet the increasing demand. Under the new zoning law, Lot A is too small to accommodate two houses, as is Lot B. However, if the owners of Lot A and Lot B could combine their parcels into a single site, they would be able to build three houses on the combined lot, making it possible for them to capitalize on the new zoning regulation. Because the combined land area could make room for three properties instead of two, the land value of the joined parcel would be higher than the sum of the value of each existing site. Apparently, assembling the two pieces of land into a single parcel for redevelopment would be welfare enhancing for both landowners and for the community.

In an ideal world in which transaction costs are zero, the two landowners should, in principle, be willing to engage in a voluntary exchange to realize the potential gains in land redevelopment.[4] Transaction costs may include the costs of: (1) identifying the bargaining parties; (2) determining the appropriate amount for the transaction; (3) enforcing contractual agreements; and (4) meeting government regulations (Coase 1937; Hong 1998; Webster and Lai 2003). As long as these costs are negligible, it does not matter whether the owner of Lot A (Owner A) buys out Owner B or vice versa; the level of land value increment generated from the project and the allocation of the benefit between the two parties should remain unchanged.

In reality, as new institutional economists argue, transaction costs are never zero (Alston, Eggertsson, and North 1996; Coase 1937; Williamson 2005). Particularly relevant to land assembly are the transaction costs of delineating and assigning the assembly value—the increased land value created by combining fragmented land sites into a larger parcel for

[4] For detailed explanations and applications of the transaction cost framework, see Buitelaar (2004), Coase (1937, 1960, 1988), Eggertsson (1990), Hong (1998), Needham and De Kam (2004), North (1990, 1993, 1994), Webster and Lai (2003), and Williamson (1985, 2005).

more valuable development. Assume that Owner A seeks to capitalize on the new zoning law by combining the two adjacent lots for redevelopment and offers to buy out Owner B. Both landowners are trying to maximize their self-interest by bargaining for the largest possible portion of the net assembly value. Owner A intends to buy out Owner B, thus eliminating the possibility of future transactions. (Using game theory terminology, this will not be a repeated game.) B recognizes that A requires B's site to realize the net gains of assembling the two parcels and refuses to sell the property unless A raises the price to the level that allows B to retain the entire net assembly value. A will surely resist handing over all the financial benefits to B, whose role in creating the value is limited to the ownership of Lot B. If neither owner is willing to compromise by accepting less than the full assembly surplus, negotiation for a property transfer will become a stalemate (Asami 1988).

The involvement of a third party will not help in such a case. A developer could offer the two landowners a price that is above the fair market value of their property, assemble the two lots into a larger parcel for redevelopment, and make a profit. This welfare-enhancing proposal would benefit all parties. Yet, the holdout problem arises when the property owners understand that their bargaining positions can be strengthened by refusing to sell first. For the developer, the investment in buying the first lot will become site specific; that is, the expected returns on investing in the first lot can be realized only if the purchased lot and the adjacent site are combined and redeveloped in their entirety. Since the developer will pay the first seller a premium for buying the property, that premium will turn into a loss if the developer fails to acquire the neighboring site to complete the project. Put differently, the developer will be locked into buying the second lot, thus undermining her bargaining position in negotiating with the second landowner for the transfer of the remaining parcel. Both owners may seek to be the last to sell and demand a price that allows them to expropriate the entire net assembly value. Because both owners refuse to sell first, the idea of redeveloping the two land sites cannot go forward (Grossman and Hart 1980, 43).

One way to avoid this is to purchase the two sites by using "shield" companies. However, there is no guarantee that the true identity of the shield companies will never be exposed. If either A or B sees the connection, holdouts will reemerge.

These simple examples demonstrate some of the ways that negotiations for land assembly can become immensely complex. The level of complexity increases as more parties are involved. Knowing ahead of

time that transaction costs will be high and that impasse is likely, land assemblers seek extraordinary returns or make alternative investments. Both strategies will lead to a suboptimum level of land assembly in which less land will be acquired for redevelopment than would have been the case had there been voluntary property exchanges with little transaction cost (O'Flaherty 1994).

The Role of Law

As North (1990) and Williamson (2005) argue, when the transaction costs in an exchange are high, transacting parties invent new institutions or revise old ones to minimize the costs and continue dealing with each other. Where voluntary exchange fails to facilitate property transfers for land redevelopment, one method of breaking the impasse is to use eminent domain or compulsory purchase to coerce unwilling owners into selling their property. In most countries, the state has the legal power to appropriate private property for a public use without the owner's consent. Originally, this power was assumed to arise from natural law as an inherent power of the sovereign. In Roman law, it is known as the legal principle of imperium.

In the United States, the term *eminent domain* was derived in the middle of the nineteenth century from a legal treatise written by the Dutch jurist Hugo Grotius. The power of eminent domain enables the government to condemn private landholdings for the completion of public projects, such as roads, highways, and parks, when the owner of the needed land is unwilling to sell. The logic behind bestowing this power on the state is that the individual's right and freedom to own and enjoy private property must yield to the interest of the community. A person who owns a plot that is crucial to the completion of a public project has a monopoly-like position that could make the acquisition of the property costly. Eminent domain can be used to break this monopoly power.

In the early 1950s, when the interstate highway system began in the United States, eminent domain was instrumental in allowing the federal government to acquire more than 42,000 miles of rights of way from private individuals to build the extensive system. Had the government lacked the power to assemble private land, this project could have been unimaginably expensive and complicated.

The power of the sovereign to appropriate private property is not without limits. In many European countries, the European Convention

on Human Rights gives citizens protection from arbitrary limitation by the state on the exercise of private property rights. State interference may be granted only if the action is in accordance with the law and in the interests of national security, public safety, and the economic well-being of the community, and affected property owners are to be compensated for their loss and the inconvenience of relocation. Similarly, the Fifth Amendment to the U.S. Constitution provides that "private property [shall not] be taken for public use, without just compensation." These words are commonly referred to as the Taking Clause, and any state disposition of private property must qualify as a public use within the meaning of the Taking Clause.

Just compensation, which is defined in the United States as the "fair market value"[5] of the property at its highest and best use, ensures that taking private property for public good will not impose an undue burden on a single owner or a group of individuals. Using public funds to compensate owners of land that is incidentally located on the path of a public project requires all taxpayers to shoulder a portion of the costs. Yet, due to difficulties in defining fair market value, government compensation may never be able to indemnify property owners adequately for their losses—an issue to which I will return later.

Owners whose property is condemned may challenge the government's imposition in the courts. Judiciary review will then decide whether the state has sufficient reasons to compel the property transfers. The assumption is that court judgments and expert opinions can substitute for the price mechanism in determining the fair market value of the property targeted for compulsory acquisition. Although eminent domain and compulsory purchase may discourage holdouts, it introduces other enforcement, efficiency, and equity concerns into the land assembly process.

Enforcement

The enforcement costs of the proper use of eminent domain and compulsory purchase are high. Enforcement is particularly costly when local governments exercise public power to assemble private land for economic development or urban renewal. In both situations, after private

[5] The fair market value, as defined by the law, is the amount that a willing buyer would pay a willing seller for the property at its highest and best use and at an arm's length, bona fide sale (Youngman 2006, 51). This measure does not include the assembly value or the sentimental value of property to the seller that may have no monetary value to the buyer.

land is condemned, it is transferred to another group for private residential and/or commercial development. This raises the question of whether this type of public acquisition can be qualified as a public use.

In the United States, for instance, supporters of eminent domain argue that public use should be broadly interpreted as "public purpose," as in U.S. Supreme Court decisions in *Berman v. Parker*, 348 U.S. 26 (1954), and *Hawaii Housing Authority v. Midkiff*, 467 U.S. 229 (1984). They assert that supplying land of suitable sizes to private developers for redevelopment may improve the city's property tax base and generate employment, both of which are in the interests of the local community. Opponents claim that a public use, as specified in the Taking Clause, should literally mean public usage and ownership of the condemned property.[6] According to this view, it is unconstitutional for a local government to take private possessions from a citizen and transfer them to another private entity for nonpublic development. The debate has persisted for many years without definite resolution.

In principle, the Fifth and Fourteenth Amendments to the U.S. Constitution and legal precedents should guide courts' decisions and government action. In practice, the majority of courts defer to public officials' judgment on meeting the public use test. When a dispute arises between a local government and property owners over the state's power, prolonged litigation seems inevitable. As described in chapter 7 of this book, it took almost 10 years and 47 lawsuits before New York City could assemble all required land parcels to redevelop Times Square.

In June 2005, the U.S. Supreme Court ruled five to four in *Kelo et al. v. City of New London et al.*, 545 U.S. 469, that the local government had the right to take petitioners' properties for the purpose of revitalizing the city's economy. Despite this affirmation of the government's power to take private property for economic development, supporters did not claim a decisive victory because of the narrow margin in the ruling. In fact, the decision revealed the division of justices' opinions on the taking issues, engendering public debate that in turn gave additional momentum to challenges to eminent domain. In the 2006 U.S. general election, measures to limit government power to exercise eminent domain for economic development were on the ballot in 11 states, and nine states approved them.[7] In California and Idaho, where the bills failed,

[6] See this argument in Justice J. Thomas's dissenting opinion in *Kelo et al. v. City of New London et al.*, 545 U.S. 469 (2005).

[7] The states that passed the eminent domain measures included Arizona, Florida, Georgia, Michigan, Nevada, New Hampshire, North Dakota, Oregon, and South Carolina.

eminent domain restrictions were combined with stronger language requiring governments to compensate landowners for laws or regulations that diminish property values (regulatory takings).

Future legal and political debates will be even more protracted and intense, thereby raising the question of the effectiveness of using eminent domain to assemble land in the United States. Compulsory acquisition of an unwilling owner's property can indeed lower the transaction costs of negotiation. Yet, the differing interpretations of the Taking Clause make enforcement of the law politically and legally challenging. It is important to assess carefully whether the benefit of using eminent domain or compulsory purchase to facilitate private development can justify the high enforcement cost.

Efficiency

Using eminent domain to assemble land may not send useful signals to land assemblers and property owners about whether to preserve the status quo or reconfigure land for redevelopment. Nor can this method help developers decide how much land to acquire if redevelopment is deemed necessary. These concerns stem from the fact that compensation is determined by a court's decision or an expert's opinion about the fair market value of the affected property. When the market mechanism is excluded, how can a developer decide whether the marginal costs of assembling, say, an extra acre of land will be equal to the marginal benefit of redeveloping this additional area? Depending on the political situation, a developer may either overcompensate or undercompensate property owners. In the former case, the developer would assemble less land than if property transactions had been conducted voluntarily. In the latter case, the developer would purchase more land than needed.

Assume that a local government wants to use eminent domain to take properties from a well-organized group of owners. As noted, the Fifth Amendment to the U.S. Constitution guarantees that these targeted owners will receive the fair market value of their property as just compensation. Because the fair market value does not include the assembly value of the land, there is no incentive for the owners to cooperate with the government to expedite the process. The success or failure of the project, which will in part be determined by the timeliness of land assembly, will not affect the amount of compensation paid to these individuals by the government. Hence, there is no motivation for owners to transfer their assets to the government quickly.

To complicate matters further, there is also no generally agreed-upon method of measuring and monetizing owners' subjective value of the property. Owners may have developed sentimental attachments to their property. A family might have lived in the house for several generations. The fence in the garden might have been built by the owner, or the owner might have decorated the house based on eccentric tastes. Such personal attachments to and investments in the property can be idiosyncratic. A property appraisal based on recent comparable sales occurring in the neighborhood will not be able to take these unique sentimental values into consideration. The fact that three generations of a family have lived in the house, for example, will have little monetary or material worth to potential buyers unless family members are celebrities. Property owners who value highly personal attachments to their homes are unlikely to be satisfied with government compensation. This dissatisfaction may induce them to oppose compulsory purchase through political and legal channels.

Delaying the project by making property transfers as costly as possible could work to the advantage of private owners. The owners may challenge the government in the court based on the legal ground that the taking would violate the public use restrictions in the Fifth Amendment's Taking Clause. Since the definition of *public use* is not clear, the government may lose the lawsuit. Even if the case works against the petitioners, lengthy judiciary reviews and appeals and bad publicity may scare away private investment. To speed up the project and lower the risk brought forth by the litigation, the government may settle the lawsuit outside court by offering compensation that is above the fair market value of the property. When extra funds are used to buy out dissenting owners, fewer resources will be available to assemble the amount of land originally planned.

By contrast, consider that property owners are politically weak or are unable to obtain legal advice. With eminent domain, the government knows that it can acquire the land with just compensation without engaging in a huge legal battle with the affected owners and without facing public protest. Given that there is no clear definition of fair market value, the government may undercompensate the owners. As the acquisition cost of assembling land is reduced, more land than the redevelopment project needs may be taken. This happened in the federal urban renewal program between 1949 and 1974, when all land assembly was sponsored by the government using eminent domain. Especially in poor neighborhoods, the government often condemned fully integrated communities,

tore down all structures, and handed the land to large private developers. Because compensation was low, the scale of land assembly was often too large for cost-effective redevelopment. As a result, many acquired parcels stood vacant for years, even for decades (Fogelson 2001, 366–370).

As portrayed in these two examples, using eminent domain to acquire land for redevelopment may lead to either overassembly or underassembly of land. When the decision about the quantity of land assembled does not depend on cost-benefit analysis, but instead on political or legal rules, misallocation of land resources for redevelopment may emerge, thereby creating inefficiency.

Equity

Not only is the use of eminent domain to assemble land for urban redevelopment inefficient, but it may also be unfair to owners whose property is being taken. At the heart of the issue is whether the owners are entitled to a portion of the assembly value and the property's sentimental value. Intuition leads us to conclude that displaced owners do not deserve any land value increments generated from land assembly or redevelopment. At first glance, the logic appears simple; these owners do not contribute to the creation of the land value and thus have no legitimate claim to the economic benefit. Yet, this argument immediately breaks down when the principle of horizontal equity is taken into consideration. Financial benefits of land improvements in the form of increased property prices may spill over to the adjacent neighborhood. If owners are not entitled to this land price appreciation, why should neighboring owners, whose properties abut the project but are not taken, be allowed to retain it? One can argue that neighboring owners may have to pay higher property taxes because of a general increase in property values caused by the project. This argument, however, is valid only if there is an overlap of taxing powers or an interjurisdiction transfer mechanism between the two locales. Even if such arrangements are available, the question remains: Will these two groups of property owners be treated equally when the government uses two different methods—property acquisition versus taxation—to recoup the assembly value from them?

When eminent domain is used, the government seizes all potential assembly value, as all rights in land are being transferred from the original owner to a public entity. Compensation is based on the current fair market value of the property. When property taxation is used, tax rates

are normally not high enough to allow government to recapture all publicly created land value increments. Thus, it is reasonable to conclude that property tax payments made by the neighboring owners are normally far from a full confiscation of the assembly value. If the purpose of just compensation is to allocate costs of urban renewal equitably among affected parties, it will be hard to justify placing a heavier burden on owners whose land is taken than on neighboring owners who benefit from the project but do not subject their property rights to state expropriation. Even if there were a consensus on allowing compensation to include certain assembly value, the procedure for estimating an appropriate amount for each owner would incur high transaction costs. Arbitrariness seems unavoidable.

Compensating owners for the sentimental value of the property is also difficult. There is no algorithm for calculating sentimental value. Nor can the market mechanism put a price on unique attributes that have value only to the existing owner. Without a measurement standard, the normal practice of compensating property owners for the loss of sentimental value is to increase arbitrarily the amount of condemnation awards by a percentage. As argued earlier, a random approach to setting compensation is likely to overcompensate one group of owners and undercompensate another, based largely on the bargaining powers of involved parties. This approach raises significant equity issues.

Given these problems related to enforcement, efficiency, and equity, legal ordering is not necessarily the best possible solution for land assembly problems. Using government coercion to assemble land does no more than replace the transaction costs associated with holdouts with those arising from difficulties in determining public use and just compensation.

Land Readjustment

Land readjustment is another method of lowering the transaction costs of coordinating property exchange in land assembly. As mentioned earlier, the fundamental principle of land readjustment is simple: instigated land for land swapping, or property rights exchange. The uniqueness of this approach lies in its institutional design, which may, if favorable conditions exist, minimize the transaction costs of assembling land. As the case studies in this book illustrate, each country has a unique way of

structuring land readjustment; hence, the stylized approach postulated here may not reflect the specificity of individual systems. More important, what I describe below is an ideal way of organizing land readjustment. In practice, policy makers may modify the principles to match existing institutional contexts. Land readjustment generally has four components: project initiation; community support development; land resubdivision and servicing; and land reallocation. In discussing these components, I also state the propositions tested in this book.

Project Initiation

In most countries, either a public or private entity can undertake a land readjustment project. A project commences when a municipality or a group of landowners initiates the idea of readjusting land in a neighborhood and forms an agency whose members may include local residents, government officials, and outside developers. This agency proposes to the local planning authority a readjustment plan that includes new boundaries and proposed uses of the assembled land. The agency also invites key local leaders and interested developers to discuss the feasibility of the proposal. If the plan seems technically and financially feasible, the group presents it to affected property owners to solicit their support.

Unlike in voluntary exchange or eminent domain, organizers of a land readjustment project reach out to the public at the very beginning of the project to engender broad political and community support. No shield companies are buying properties in the neighborhood. No condemnation notices are issued to residents.

Why is a municipality, a private entity, or a group of property owners interested in initiating land readjustment? In most cases, the motivation behind a government-initiated land readjustment project is to update land uses or to obtain land for constructing local infrastructure. When revised planning regulations are imposed on an area with no master plan or where the existing plan is outdated, current development will not be in accord with the law. To build the necessary local infrastructure, land with fragmented ownership and/or irregular subdivision must be assembled and then reparceled in order to implement the new master plan. In resubdividing land, a local government can, in principle, ask landowners to give up a portion of their land to make space available for local infrastructure. In a land readjustment scheme, compensation for taking land is in the form of another piece of serviced land of equal value, not cash.

This method, therefore, saves local government the initial capital outlay for land acquisition, making it an attractive way to obtain land for public uses.

One misconception about countries in which land readjustment is employed is that they have few ideological and legal restrictions on state interference with private property rights. However, the reason for using land readjustment to obtain land for public purposes is just the opposite: The legal protection on private property is so strong and so much in favor of landowners that the government deliberately avoids exercising its power to take land for public uses. In Israel and Japan, for instance, courts normally award generous compensation to property owners when deciding lawsuits involving taking issues. If land readjustment were not practiced in these countries, local governments would have to pay huge compensation for acquiring land for local infrastructure. Since local governments are normally under tight budgetary constraints, relying on compulsory purchase would hamper their ability to obtain land for public uses or to implement new land use plans. Thus, the first proposition we explore in this book is that *strong private property protection heightens fiscal and administrative incentives for government to use land readjustment to assemble land*. This proposition predicts that countries with strong legal and ideological supports for private property are most likely to consider the adoption of land readjustment.

Private developers may initiate an instigated property exchange to profit from redeveloping an area in which the potential of land has not been fully realized. This is particularly common in old urban neighborhoods whose location is strategic, but in which existing development has become obsolete. As argued earlier, the profitability and risks associated with neighborhood redevelopment depend on whether the whole area can be comprehensively rebuilt. Private developers, therefore, like to obtain guarantees that the majority of property owners will agree to participate in the proposed scheme. Because consent of the majority of property owners is sometimes required to approve land readjustment initiatives, this method is one way to provide developers with such assurance.[8]

Private property owners who initiate land readjustment may be the

[8] In Japan, land readjustment projects that are for public good do not require the consent of the majority of landowners. In Germany and Israel, government-led land readjustment, even projects that are largely for private development, also do not need approval from landowners. The determination of whether a project is mostly for private or for public interest is not without ambiguity.

largest landowners in the neighborhood. Thus, land redevelopment that can increase land value will bring them substantial financial benefits. Even where there are potential net benefits for initiating land readjustment, they are contingent on the level of difficulty in gaining cooperation from the rest of the property owners and renters and from other community groups.

Community Support Development

After establishing a core group for promoting instigated property exchanges and obtaining government approval, the agency proclaims the targeted area as a land readjustment district and organizes public hearings to enlist the participation of affected property owners. The organizing committee presents a plan that is detailed enough to show good-faith efforts to redevelop the neighborhood. All landowners or leaseholders[9] who hold leasing contracts are invited to join the project by contributing their property rights (freeholds or leaseholds) to the agency as investment capital. If implementation of property exchanges requires rental arrangements between a landlord and a tenant to be terminated before the expiration of the lease, the landlord must compensate the renter for the loss of leasing rights. Because returns on investment are in the form of a piece of serviced land or other property rights at the end of project, a preliminary measure of a land exchange ratio is needed to show how the interest of participating owners may be affected. This is based on preliminary ideas about how the area will be redeveloped, the cost of construction, and available government subsidies.

By estimating the before-and-after values of land involved in instigated property exchanges, owners can calculate how much land they need to contribute to the project to become participating members. In most cases, the guiding principle is to keep the net worth of owners' equity unchanged. This can be done by returning to owners a plot of serviced land that is smaller but has a higher value than the land put into the project. Because an assessment of future land value can never be exact, one allocation method is to ensure that the proportionate value of each owner's landholding relative to the total value of all lots is the same before and after the project. Public hearings facilitate negotiations

[9] Because leasehold rights (the right to use and develop land) are elements of the bundle of property rights, I consider leaseholders as owners of certain land rights for the period specified in the lease. Although leaseholders do not possess land freehold, they normally own the buildings erected on the leasehold land. For simplification, I call landowners and leaseholders "property owners" here.

between the agency and property owners on these land allocation issues and on methods of dealing with contingencies when they arise. The negotiation process can be lengthy and contentious.

This institutional arrangement differs significantly from voluntary exchange and compulsory purchase. Most noticeably, the conventional methods rely on separate negotiations between the developer and individual property owners, whereas in land readjustment collective bargaining is the dominant mode. The conventional methods impose the negotiation costs on the developer. In a land readjustment scheme, however, negotiation costs are mostly borne by property owners who spend time attending public hearings and working out the procedural and contractual solutions for disagreements. Whether these costs are higher or lower than the costs of conventional methods depends on three factors: (1) how organized the owners are; (2) how well they communicate with each other; and (3) how homogenous their interests are. All these factors are affected by the number of owners involved. A large group of property owners whose members have high discount rates, little trust, and no capacity to communicate with one another and enforce mutual agreements will likely face high negotiation costs. In fact, under such conditions, the probability for owners to engage in collective action for instigated property exchanges is low. Thus, orchestrating cooperation among property owners is paramount for land readjustment projects.

Formulating collective action among members in a large group is known to be prohibitively costly (Hardin 1968; Olson 1971). According to the logic postulated by this school of thought, individual owners will refuse to join the scheme because land redevelopment creates nonexclusive benefits, such as higher land values or better amenities, which members of a community can attain regardless of whether they contribute to the project or not. A property owner who tries to maximize self-interest will refuse to join the project and will let others pay for all the land redevelopment costs. At the end of the project, this owner's property will remain at the location where land is redeveloped, thereby enabling the owner to benefit from the higher land value without giving up a home, relocating the family, and assuming the risk of the project. If all property owners apply the same rationale in deciding whether to participate in a land readjustment project, the proposal will never receive sufficient support; most owners will either avoid paying their fair share of the costs or will try to avoid being taken advantage of by free riders.

The question is, then, what motivates property owners, especially small ones, to join a land readjustment scheme? What motivates them to

hand over willingly property to an agency, allow the agency to demolish the buildings, and agree to receive land sites of equal value on completion of the project? What benefits will be sufficient to compensate them for enduring these inconveniences and risks?

It is true that a land readjustment project will suffer from massive holdouts if there is no mechanism for excluding noncooperating owners from enjoying the benefits. This explains the need for special land readjustment legislation to proclaim that individuals' rights to use and benefit from private property should not take precedence over public interests and that the state has the right to compel opposing owners to sell their property to the land readjustment agency or to go along with the project. Put differently, if the majority of property owners in a neighborhood believe that a redevelopment project is beneficial to the community at large, it is unreasonable to allow a few nonconcurring individuals to block the initiative. Thus, dissenting owners must either concede or sell their properties to the agency. Both actions keep them from enjoying the benefits of the project without paying a fair share. This explains why property exchanges in a land readjustment project may have to be instigated. Hence, the second proposition is that *to assist the organizing of instigated property exchanges, there should be a special land readjustment (or related) law to minimize the free-rider problem.*

A legal rule for land readjustment should be carefully established. Policy makers must keep in mind that the purpose of the law is to facilitate negotiations between involved parties. The goal is to provide the right incentive to resolve owners' collective action problems through consensus building instead of through litigation. The function of the law is to indicate possible legal ramifications, such as mandatory participation or compulsory purchase, if a few property owners decide against joining the land readjustment scheme after the majority of owners have consented.

It is reasonable to ask whether law alone will solve the free-rider problem. In principle, if a legal rule limits the owners' options to either joining the project or leaving the community, there should be no holdouts. This assertion is based on the assumption of perfect enforcement that cannot be realized in practice. For example, both eminent domain and compulsory purchase empower the state to take property for a public use with just compensation, and the prime reason for allowing the state to possess this coercive power in a democratic society is to deal with holdouts. In actuality, however, the availability of this state power does not always ease land assembly. As discussed earlier, opposing owners

can go to court to challenge government power as a violation of the constitutional protection of private property, thereby delaying the project and increasing costs. A land readjustment agency may also have to ask the state to acquire nonconcurring owners' property compulsorily. If property transfers have to be coerced, how can land readjustment be a better option than eminent domain?

The government and the land readjustment agency may deal with the legality of compulsory property transfers by creating a democratic decision-making process. In most countries, a supermajority vote from consenting owners is required to allow land readjustment to proceed. For instance, consent from more than two-thirds of all property owners owning more than 66 percent of private landholdings (in terms of land area) in a district is needed to approve a land readjustment proposal in Japan (Hayashi 2002; also see chapter 4). In Taiwan, the consent requirement is 50 percent (Lin and Lin 2006). This veto power enables owners to evaluate land readjustment proposals collectively and to reject them if anticipated costs outweigh benefits.

It is important to understand that the majority and supermajority rules are not primarily designed to prevent holdouts. If holdouts were the concern, the government could pass a law that allows land readjustment without the consent of property owners. Such laws exist in both Germany and Israel (see chapters 2 and 3). The reason for requiring a threshold of consenting owners to approve land readjustment is to empower the community to decide whether the project will benefit the neighborhood. In a democratic society, who is more eligible to decide the future of a local area than its residents and property owners? If the majority of affected parties believe that land redevelopment will not bring net benefits to the community, imposing a land readjustment scheme will open the door for political and legal challenges. These are the undesirable effects of exercising eminent domain that land readjustment is supposed to avoid.

In a free society that protects individual liberty and property rights, different preferences are reconciled through social discourse, not through coercion. By requiring a majority vote to approve or reject a land readjustment proposal, the responsible agency will have to organize public meetings in which affected parties will hear and discuss the pros and cons of the proposal, thereby giving them necessary information to make their decisions. This decision-making process, though time-consuming, is an essential mechanism for fostering collective action.

Admittedly, there are situations in which majority rule is redundant.

For example, if more than 95 percent of property owners have voluntarily joined previous land readjustment projects, it may be unnecessary to require the consent of, say, more than 50 percent of affected owners. Ideally, if a land readjustment project receives unanimous support from property owners, there is also no need for legal rules that specify the consent requirement and the procedure for compulsory purchase. The point is that, if the objective of using land readjustment is to increase the protection of private property or to make property transfers for urban redevelopment less coercive, policy makers should not focus entirely on designing legal institutions to support land readjustment. Instead, community participation in making land redevelopment decisions is vital. Other institutional arrangements that can foster collective action among property owners should also be considered.

In examining collective action issues in different contexts, scholars have found that members of some communities can solve free-rider problems or conflicts without resorting to external authorities or law (Axelrod 1984; Ellickson 1991; Ginitis et al. 2005; Ostrom 1990). Social norms enforced by locally designed mechanisms are instrumental in shaping people's behavior and their decisions to cooperate with one another. According to the theory of reciprocity, collective action can be fostered when members of a community believe that their willingness to cooperate will be reciprocated by their counterparts (Axelrod 1984; Kahan 2005).

Connecting this literature to issues related to instigated property exchange moves community organizing and informal institutions for land readjustment to center stage. In theory, the operating procedures of land readjustment can create ample opportunities for involved parties to learn to work with each other. Throughout the process, affected property owners and other stakeholders will be asked to partake in decision making regarding the initial approval of the project, the allocation of costs and benefits, and the design of the redevelopment plan for the neighborhood. For example, if a land readjustment proposal receives a supermajority vote from owners, initiators will hold an election to allow all consenting owners to select new board members and register as a legal entity to carry out land reconfiguration. A master plan will be worked out collaboratively, with input from the planning authority, private developers, and participating owners.

Dissenting owners have the right to withdraw from the project by selling their interest in land to the land readjustment agency. Unlike in the

use of eminent domain or compulsory purchase, compensation for property will not be set by the courts or by outside experts; rather, it will be decided by all stakeholders at public hearings. A key advantage of this approach is to allow involved parties to decide collectively on the exchange value of land at the beginning of land assembly, thus averting holdouts. As suggested by Grossman and Hart (1980) and Menezes and Pitchford (2001), if a developer can make a credible take-it-or-leave-it offer to all property owners simultaneously, there is no financial incentive for owners to delay sales. Put differently, a land readjustment agency's acceptance of a land exchange with an individual owner is contingent on having a unanimous or supermajority agreement with all owners that they will transfer their land rights using a uniform method. Otherwise, the proposal will not go forward. The owners are motivated to cooperate with, not compete against, each other in getting the best possible offer from the agency. Compensation should not exceed the exchange value of land set by the community. If owners could get bigger rewards by accepting condemnation compensation than by participating in the project, they will hold out.

These institutional arrangements produce repeated interactions between involved parties, which in turn may allow them to learn whether the other parties are trustworthy and cooperative (North 1994). A successive positive experience in forming collective action in land readjustment may nurture and reinforce trust relations between the communities and the municipality and between the city government and private developers, thereby increasing the chance of cooperation in future projects. Conversely, if one party, say the government, has violated the trust of other stakeholders, future collaborations will be undermined. When informal institutions are in disrepair, the land readjustment agency may have to rely more heavily on law than on social norms to facilitate property exchanges. Hence, the third proposition is that *trust relations can facilitate cooperation between involved parties in land readjustment; yet, if these relations are broken or do not exist, land readjustment agencies will have to depend on law and coercion to force property transfers.*

Land Resubdivision and Servicing

The land readjustment agency draws up a master plan for the district in consultation with the planning department. Again, public hearings

are held to solicit comments from participating owners. After the master plan is reviewed and approved, the agency combines all land parcels for a new subdivision. Because readjusting land for an entire district may take a long time, this procedure can be conducted "virtually." That is, resubdivision of the whole area and exchanges of land sites are done with the help of a map or a computer simulation model. With these visual aids, participating owners know the locations and sizes of their future land lots, but they do not need to leave their property until the land is required for the project. In a large land readjustment scheme, owners in one locale can temporarily relocate to an adjacent area and then return to their original land sites after readjustment is completed. This way, the operations can be rotated within the district whenever land is vacant.

One appealing factor is that land readjustment requires fewer public funds to acquire land compulsorily for public purposes. In upgrading the district, parts of the assembled land will be devoted to the construction of local infrastructure. This land will be deducted from the bulk of land that will be reallocated back to the participating owners on completion of the project. In addition, some parcels can be set aside to be sold to raise funds for defraying infrastructure development costs. These land reductions are a way of requiring owners to pay for a portion of local services. The higher the percentage of land reserved for public uses and sale, the less land will be available for returning to the owners. In a carefully planned land readjustment project, local infrastructure investment could, in theory, be self-financing (Doebele 1982, 2002; Larsson 1993, 1997).

As logical as this may sound, in ordinary circumstances it is very difficult to recover full local infrastructure investment from internal financing through land readjustment. In most cases, direct public subsidy and/or upzoning at no cost to land readjustment agencies is needed to make projects financially viable. More important, there seems to be a tradeoff between self-financing of public goods and the level of owner participation in land readjustment projects. If a large portion of the readjusted land is reserved for public facilities and sale, participating owners will eventually receive much smaller lots than they contributed. In some countries, such as Germany, Taiwan, and North Korea, landowners give up as much as 30 to 50 percent of their landholding (chapter 2; Lee 2002; Lin and Lin 2006).

With smaller land parcels to accommodate a similarly sized popula-

tion, development density must increase. If the preference of housing consumption is low density, landowners will be unhappy to be surrounded by many other houses after land is readjusted. No increase in land value will be sufficient to compensate them fully for the loss of a secluded environment. In this case, a land readjustment agency cannot deduct too much land for public uses if it wants the majority of owners to consent to the project. Yet, with little land available to cover the costs of public goods, government subsidies will be required to balance the budget. This leads to our fourth proposition: *Land readjustment projects can be self-financing only if the responsible agency can resolve the inherent tradeoff between encouraging property owners' participation by reducing their land contributions to the project and recovering the full costs of local infrastructure by reserving more land for public uses and sale.*

Land Reallocation

After site boundaries are readjusted and updated local infrastructure is provided, the market value of all newly subdivided lots is assessed. The land sites are then ready to be returned to their owners. Each owner receives a new land parcel whose current market value is at least the same as the value of the original land, albeit of smaller size. If high-density development is feasible, reduction in land size can be kept to a minimum. This way, the total value of land returned to the owners may even be higher than the value of the original holdings. Due to the resubdivision of parcels, some owners may receive less land than they are entitled to. The agency will compensate them with cash. Owners who receive more land will buy the extra areas. The land registry will issue titles to returning property owners. On the receipt of the equivalent land, owners may either rebuild their homes on the sites or sell the land to other interested parties at full market value.

This technique of swapping property has an important advantage over the compensation method found in compulsory purchase; it allows original owners to partake in land redevelopment, thus enabling them to enjoy the financial gains generated by the project. The use of eminent domain removes owners permanently from their land and thus eliminates their chances of sharing any assembly value. Since property owners in a land readjustment scheme have contributed a portion of their land to finance local infrastructure, it is fair to allow them to enjoy a portion

of the land value increment created by the investment. Property owners also assume the risks of the project. If the completion of land readjustment coincides with an unexpected downturn in the real estate market, the revenue generated by selling the reserved land may not cover the infrastructure costs of public goods. The agency would have to ask participating owners to contribute more land or cash to cover the shortfall. By taking this risk, owners should be rewarded by a reasonable return on their investment.

In land readjustment projects, property exchange is not restricted to the land for land method. Property owners may receive stock of a land readjustment company in return for selling their land to the entity. The amount of stock received by an owner will depend on the value of the land sold in proportion to the market value of the company's total equity. The company can raise investment capital from both property owners and nonowners. On the completion of the project, parts of the available serviced land will be returned to shareholders according to prior agreements on the price and location of the property. Alternatively, shareholders can sell their holdings in the stock market and use the proceeds to buy back land from the company or to relocate to another area. This method gives additional flexibility to property owners who are interested in participating in land readjustment as investors, but who do not necessarily want to return to the original neighborhood.

A similar method is to exchange an existing property for the future right to purchase an equivalent housing unit (see chapter 6). In Hong Kong, the right to purchase is tradable in the open market. The availability of these diverse methods indicates the flexibility of exchanging property rights in land readjustment and the opportunity to amend methods according to involved parties' preferences and different institutional contexts.

After the return of private land lots to participating owners, the agency auctions off the reserved public land and uses the proceeds to repay the construction costs of local infrastructure. Any surplus is divided among all participating owners. If a deficit occurs, owners will be asked to contribute additional funds. When all debts are settled, the community may choose to dissolve the land readjustment agency. The local government then resumes the responsibility of maintaining the newly built infrastructure and providing other services to the community with the revenue collected from property taxes. The land readjustment project is officially completed.

This description has captured the core conceptual framework for

designing land readjustment. Other ways of implementing this kind of project might fit particular circumstances better. The next step is to test the suggested propositions by examining the six case studies presented in the following chapters.

Six Applications of Instigated Property Exchange

It is not without reason that efforts to promote land readjustment in the United States have concentrated on legal institutions (see Bergeson and Glickfield 1987; Liebmann 1998; Minerbi 1987; Schnidman 1987; Shultz and Schnidman 1990). In any land readjustment scheme, there are almost always some property owners who refuse to sell their property. If dissenting owners are a minority, the land readjustment agency will proceed with the proposal and rely on the state to exercise its power to coerce opposing owners into joining the scheme or selling their property. Because most countries have explicit constitutional provisions for protecting private property, the question is whether land readjustment legislation that empowers a public or private agency to force property transfers from one group of private owners to another would be a violation of the constitution.

In most countries, if state power is used to take private property, it must be for a public use or public good and with just compensation. Readjusting boundaries of private properties to make land more suitable for private redevelopment may not pass the public use test. If a transfer of property does not qualify as a lawful taking according to the constitution, a land readjustment agency has no legal ground to interfere with its use and possession. Even if the compulsory property transfer could pass the public use test, would the door still be open for political challenges? Opponents could accuse the agency of using public powers for private gains. Using the German land readjustment system as an example, Benjamin Davy analyzes these legal issues thoroughly in chapter 2.

In 2001, the First Chamber of the German Constitutional Court ruled that mandatory land readjustment would not amount to a taking. Rather, it "would only use the legislative power to determine the content and scope of property," which is within the legal right of federal and state governments according to Article 14 of the *Grundgesetz*, the German constitution. The court also decided that, as land is taken only temporarily and mainly for private uses, the constitutional provision that governs the reasonableness of taking could not be applied to mandatory

land readjustment. The opinion of the court is both a blessing and a curse.

On one hand, the court's decision has cleared the way for using mandatory land readjustment to assemble land for redevelopment in Germany. On the other hand, treating mandatory land readjustment primarily as a service to private landowners may hinder the government's ability to obtain land from property owners for public purposes or to recapture the land value increment for financing local infrastructure. The ruling may lead to future legislation that narrows the scope of mandatory land readjustment to resubdivision of land only, thereby making it a far less useful land management tool.

The German experience sheds important light on the way in which laws should be legislated and revised to support land readjustment. As Davy eloquently argues, the freedom of owners to enjoy private property should not be mandatory. Thus, when an individual's interest in land is in conflict with that of the community at large, consensus building through persuasion and negotiation should first be used to resolve the disagreement. Coercion should be employed only as the last resort when the involved parties have failed to compromise after exhausting all conflict-resolution mechanisms. Davy's chapter vividly describes the delicate balance that the courts and government officials need to maintain in protecting both public and private property rights.

In chapter 3, Rachelle Alterman depicts the legal, geopolitical, and land administrative contexts in which land readjustment is advocated and practiced in Israel. More specifically, she describes why local governments in Israel have been relying on land readjustment to obtain land for constructing local infrastructure. There has been a gradual increase in the support of private property protectionism in Israel. In recent years, the courts have reinterpreted the meanings of public purposes in the law. With the narrowing of the range of public purposes for which land may be taken, expropriation (eminent domain) offers less help when the state wants to acquire private property to achieve its planning and fiscal goals. Alterman also compares land readjustment to other land use planning tools, including downzoning, compulsory dedication, and negotiated exactions. She argues that land readjustment facilitates the reparcellation of land in Israel, allowing local governments to implement their revised land use plans. In the process of reparcellation, municipalities can also reserve land for public uses or sale, thereby lowering the capital requirement for providing public infrastructure and local services.

These benefits of land readjustment notwithstanding, restrictions have also created difficulties in implementing the method. First, subjected to the same legal constraint on compulsory dedication, the limit on the amount of land that can be obtained through land readjustment (40 percent of the land lot) is sometimes too stringent because of the need to build local infrastructure to accommodate both population and economic growth. If the government continues to use land readjustment to obtain land according to this rule, many neighborhoods will suffer from an undersupply of public land for local services. Second, reserving land for sale through land readjustment in order to raise public funds could be considered illegal by the courts or illegitimate in the eyes of the public. Third, land readjustment is not a time-saving device. Because land readjustment requires the participation of landowners, it normally takes longer than do other planning instruments. The Israeli case reveals vividly that even though land readjustment may be accepted as a land management tool, its functions are often constrained by legal and political institutions.

Another institutional issue that policy makers and analysts often raise when considering adopting land readjustment is the availability of suitable informal institutions. In chapter 4, André Sorensen examines the conventional wisdom that the wide application of land readjustment in Japan is partly a result of Japan's culture. The Japanese, the argument goes, are taught to work in groups and to defer to higher authority, thus instilling a collaborative and consensual decision-making sentiment that suits the organizational structure of land readjustment. According to this interpretation, because some Western cultures emphasize individual freedom and self-expression over collective or state control, the kind of cooperation found among Japanese landowners in land readjustment projects is hard to imagine in countries like the United States and Great Britain.

Sorensen challenges this view. He argues that opposition to government proposals to readjust land is as frequent and contentious in Japan as in other countries. Japanese farmers are not necessarily consensual and deferential to authority when it comes to matters related to land ownership. Many government-led land readjustment initiatives have failed because the majority of landowners rejected the plans. The main reasons for the large number of land readjustment projects in Japan are: (1) fragmented land ownership in rural areas; (2) the lack of public land for infrastructure development; (3) government insistence on giving the veto power to landowners in order to minimize political confrontation;

and (4) the favorable attitude of the courts toward private property protection. All these preconditions have made voluntary exchange and compulsory purchase in land assembly difficult to implement, thereby inducing local governments to choose land readjustment as the primary land assembly tool. In the past, groupism might have assisted the realization of land readjustment projects in Japan. Yet, with social and economic changes in Japan in recent decades, the informal institution remains a necessary, but no longer a sufficient, factor for organizing land readjustment.

Sorensen's finding is important because it challenges the culture-centric view that special norms, such as group harmony and consensus formation, are so important to land readjustment that only countries with these cultural norms can make use of the technique. As will be argued throughout this book, the important element for successful land readjustment is the availability of persuasive organizers who are willing to explain tenaciously to property owners how a land readjustment project may affect their own interests as well as the well-being of the community at large. This element is not part of specific cultures and thereby can be created in different countries.

Sorensen's case study demonstrates that focusing on persuasion will not guarantee the embrace of land readjustment by landowners. Other favorable conditions, such as a vibrant real estate market, must also be present. The very fact of so many failures in executing land readjustment in Japan when property prices were declining may indicate that the system designed to protect the economic interest of private landowners was functioning.

In chapter 5, Barrie Needham further affirms the idea that cooperative attitudes and trust in the government can be learned and created by property owners and developers through repeated interactions in land readjustment projects. Because of the unique geological characteristics of rural land in The Netherlands, farmers and the government have a long tradition of investing collectively in assembling fragmented land into parcels suitable for more efficient agriculture. Other rural issues, such as water quantity and quality improvements, environment conservation, and biodiversity have made land readjustment possible. The national government has also set land readjustment as a priority, thereby giving these projects the needed political and financial supports.

What is most interesting about land readjustment in The Netherlands is that they have been giving opportunities to property owners, developers, and the government to work together to solve land development

problems. As Needham describes, private developers may acquire unserviced land in the open market and then approach the municipality to form a partnership for building the necessary local infrastructure. One form of collaboration between developers and the government is to form a private company with limited liability. The developers transfer their landholdings to the company in exchange for shares whose value is equal to that of the land forgone. After the land is serviced, the company redistributes it to the stockholders according to well-specified agreements formulated prior to the project. All this is done voluntarily at the private landowners' initiative. Needham argues that this type of land readjustment project exemplifies the positive experience of property owners and municipalities in cooperating with each other in past collaborations. Had property owners lacked confidence in the integrity and competence of the government, they would not have initiated partnerships with local public agencies to assemble and service their lands. The active land policy and rural land readjustment program of the Dutch government might have nurtured this confidence through time.

As Needham pinpoints, a utilitarian attitude about land ownership also plays a critical role in enabling cooperation among stakeholders involved in land readjustment. In The Netherlands, land is treated as a commodity, not as a symbol of freedom or self-actualization. Thus, land transactions are largely driven by profit-loss analyses involving little emotional attachment. In other words, to induce voluntary property exchanges in land readjustment in The Netherlands, there must be net positive gains for all involved parties as well.

In chapter 6, Ling Hin Li and Xin Li show how providing financial rewards to both developers and property owners may increase the chance of property exchanges in two experimental land readjustment-like schemes. In the Hong Kong case, the government supported the redevelopment of the Lai Sing Court by not collecting impact fees or "modification premium"—additional leasehold charges that developers must pay when they redevelop their property beyond what the land lease permits. One interesting aspect of this case is that land readjustment was conducted vertically instead of via the usual horizontal resubdivision of land. By redeveloping the building to its maximum permissible plot ratio (the same as the floor-area ratio in the United States), the developer could build additional floor areas for sale in the open market and at the same time return a new apartment with similar attributes to each participating owner after the completion of the project.

In Hong Kong, where land prices are high, not collecting redevelopment

fees along with a large plot ratio surplus was a big incentive for the developer to undertake the land readjustment project. The investment was so lucrative that the developer was willing to share a portion of the profit with participating owners. The owners also received relocation compensation; at the end of the project, each owner will receive an apartment unit with close resemblance, on the same floor and at the same orientation as the one put into the project. More important, the contractual right to receive a unit in the new building could be sold back to the developer, who might in turn sell the right to a third party. This option provided owners with liquidity and gave them the option to purchase housing units in another location and invest any surplus in other financial instruments. Similarly, in the Pujiang case, generous compensation packages, including extra compensatory building areas and a preferential repurchasing price for a new housing unit, were offered to building owners and landholders,[10] so as to persuade them to transfer expeditiously their possessions to the local authority. Analyzing these cases from the perspectives of the developer and partaking owners showed that the net benefits of these projects were attractive enough for both parties to engage in collective action.

The success of encouraging instigated property exchanges in these two cases leads to the question of the extent to which the land contribution requirement in land readjustment lowers the possibility of voluntary property transfer. In the Hong Kong case, participating owners did not make land contributions. They profited from the redevelopment project by receiving new apartment units whose attributes were similar to the attributes of the apartment they put into the project. In addition, they could possibly share the profit of the redevelopment. Surely, this is a special case because the revenue for covering all costs and providing the financial incentive to all involved parties was based on proceeds from selling the additional housing units built on the same site. There was no resubdividion of land lots. All salable properties, tantamount to the land reserve in most land readjustment schemes, were created by increasing the development density of the parcel, not by reducing the landholding of participating owners. This reinforces the earlier assertion that voluntary exchange in land readjustment is most likely to succeed if the agency does not need land to build local infrastructure and if high-density development is an option.

[10] Because land is owned by the state and only the buildings are private property, the building owner and the landholder can be the same person. The purpose of separating the two terms is to highlight the unique property right arrangements in China.

One could also argue that the project in Hong Kong was self-financing only to the extent that it covered all private costs, but not potential social costs. The increase in development density of the site would create additional demands on local infrastructure and services. If the costs of meeting these demands were not paid for directly by new residents, the project might impose negative externalities, such as traffic jams or crowded public schools, on all homeowners in the neighborhood. In principle, the city government should collect some impact fees or leasehold charges from the developer to raise the funds to internalize these externalities. The hypothetical question is whether the assembly of property rights for redeveloping the Lai Sing Court would have been as uncontroversial had the city government asked the developer to pay for the social costs of the redevelopment. This question can be applied generally to other land readjustment projects when the goal is to require landowners to pay for local infrastructure.

In chapter 7, Lynne B. Sagalyn—who has studied the redevelopment of Times Square in New York City—assesses hypothetically the possibility of transferring some land readjustment ideas to this case. The redevelopment of Times Square took almost a decade to assemble 74 lots and went through 47 lawsuits. Sagalyn asks: "To what extent might the process have been less cumbersome and less delayed, if not less costly, had some form of land readjustment been the mechanism by which the city and state assembled the land?" She provides several legitimate warnings about the application of land readjustment to large-scale urban redevelopment projects that involve multiple interests. Key issues include: (1) fragmented urban land ownership; (2) civil opposition to development from special interest groups; and (3) reduction of public inputs into development decision making, all of which could raise the risks of urban redevelopment plans. Sagalyn argues that land readjustment does not seem capable of lowering the risk for the government and developers when it comes to dealing with complex urban redevelopment projects. Although land readjustment is not designed to address some of the issues raised by Sagalyn, she does touch on a relevant point: Analysts who advocate land readjustment must be careful not to make excessive claims about what the method can deliver.

Sagalyn also suggests a land readjustment–like model that is currently adopted by Solidere—a giant joint-stock company in Lebanon whose mission is to rebuild the central district of Beirut. Solidere is in essence the same as the private limited liability companies that Needham discusses in chapter 5. The main variation of this approach is that

landowners are not swapping one piece of land for another. Instead, they receive shares of the company in return for contributing their land to the project. This structure may not be suitable for preserving the community because land ownerships could easily be changed through stock transactions. This is an interesting model that, as Sagalyn proposes, is worthy of further studies. It shows that the ideas of instigated property exchange in land readjustment can be configured in many ways according to varying circumstances.

Chapter 8 provides tentative conclusions on institutional requirements and their enforcement for organizing instigated property exchanges. It focuses on how laws, social norms, and the market interact to form an incentive system for inducing owners to exchange their property rights in a way that is profitable for all concerned parties.

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PART

II

Legal Issues

CHAPTER

2

Mandatory Happiness?

Land Readjustment and Property in Germany

BENJAMIN DAVY

Land use plans designate areas of desirable and permitted development for new homes, new businesses, new roads, and new parks. As a land use plan is put into practice, developers and landowners convert the land into more valuable uses. But what if a land use plan continues to exist on paper only because current property holdings are unsuitable in shapes and sizes? Particularly on urban fringes, property boundaries often fail to conform to the areas designated for development. Without changing the patchwork pattern of these properties, the land cannot be improved swiftly and efficiently. The land has to be readjusted before development commences.

As a solution to unsuitable property patterns, sections 45 to 84 of the German *Baugesetzbuch* (BauGB), a federal law statute on land use planning, allow for mandatory land readjustment (*amtliche Baulandumlegung*). German municipal governments have been successfully using this method—sometimes also called *replotting* of land or *land consolidation*[1]—for decades (Dieterich, Dransfeld, and Voß 1993, 66–67; Schmidt-Eichstaedt 2005, 382–402; Seele 1982). Although the shapes and sizes of plots of land may be greatly altered, no landowner has to fear losing assets. Each landowner receives a plot of readjusted land that is at least as valuable as the present property, albeit smaller. Accordingly, most experts on German land law assume that mandatory land readjustment is not a taking of private property (Dieterich 2000, 4–8; Schmidt-

[1] The terms *land readjustment* and *land consolidation* are used interchangeably in this chapter.

Eichstaedt 2005, 382; Spannowsky 2004, 330) but instead is a lesser interference with property designed to avoid exercising eminent domain. Moreover, mandatory land readjustment would serve the interests of the landowners whose properties are prepared for improvement. They receive surrogate property—readjusted land that is more suitable for development. Their right to property would remain intact, many German experts claim.

Enter the misanthropic landowner. This landowner wishes to live remotely from other humans, distant from bristling city life or suburban bliss. He buys a secluded farmhouse surrounded by fields and meadows. As the property pattern surrounding his new home is fragmented, the misanthropic landowner buys some of these haphazardly located properties until he feels that he owns enough land to block future development. Some years later, as the city has grown and new residential areas are about to be developed, a binding land use plan designates the quiet area surrounding the misanthropic landowner's home for residential and mixed uses. Our landowner who filed objections against this plan during public participation has not been able to sway the planning process. Naturally, he is appalled and is determined never to sell his land. He expects his property rights to protect him from unwanted development. However, the local readjustment authority has commenced a formal process of land consolidation. The landowner, upon receiving a plot of readjusted land abutting his house, is unhappy. The fact that the value of his new property equals the full value of his original properties hardly consoles him. On the contrary, his home is now surrounded by happy families, happy terrace houses, and a happy shopping mall. Has the misanthropic landowner been taught a lesson about the power of eminent domain, the government's right to take private property? Or did he simply have to learn that, despite the constitutional right to property, the government can sometimes condemn people to mandatory happiness?

Mandatory land readjustment helps put land use plans into practice. Of course, the private owners of the land may modify their properties by mutual agreement. For several reasons, however, the landowners may not be able to negotiate an agreement on land consolidation. If many stakeholders are involved, the transaction costs of voluntary land readjustment are very high. If the pattern of land values in an area designated for development is vastly irregular, the stakeholders will not stop haggling over the value of their properties. Also, some landowners (like the misanthrope in my example) may simply prefer not to modify their plots. The German planning system accepts none of these reasons. For

the purpose of land readjustment required for the implementation of a binding land use plan (*Bebauungsplan*), municipal governments may exercise their regulatory authority.

Land consolidation does not merely produce more suitable ownership patterns, but it also makes a slice of the readjustment gain (*Umlegungsvorteil*) available to municipal governments. This gain is created when land is prepared for development by modifying the boundaries of existing properties. Although municipal governments are excluded from planning gain (the rise in land value due to a land use plan), each municipality has the right to capture some of the readjustment gain. But if a landowner does not wish to promote development or to share the benefits of higher property values, why is mandatory land readjustment not, in fact, a taking of property?

In 2001, the First Chamber of the German Federal Constitutional Court (*Bundesverfassungsgericht*) ruled on the relationship between property protection and mandatory land readjustment (BVerfGE 104: 1–13 [2001] – *Baulandumlegung*).[2] From a comparative perspective, this case helps clarify the nature of property as well as mandatory land readjustment.

Mandatory Land Readjustment in Germany

German planning law empowers municipal governments to enforce their land use plans through land consolidation. Under section 45, paragraph 1, of BauGB, all plots of land zoned for development may be readjusted to create plots of land suitable for building purposes or other uses (Dieterich 2006). Land readjustment may change the locations, shapes, and sizes of existing plots. Undeveloped as well as developed land may be readjusted. A binding land use plan is not always a prerequisite: Existing settlement areas where landowners have the right to build on their land even without prior planning (BauGB, section 34) are also subject to mandatory land readjustment.

As long as landowners are willing and able to modify the boundaries of their properties by themselves, the land may not be readjusted compulsorily. Mandatory land readjustment is available to the municipal

[2] Unlike in the United States, the names of the plaintiff and defendant are not disclosed to the public in Germany, to protect the involved parties' privacy. Thus, the citation and the references do not include this information.

government only if the modification of the shapes and sizes of existing plots is necessary for the realization of a plan.

The readjustment authority (*Umlegungsstelle*), officially part of the municipal government, starts the mandatory land consolidation process with a formal declaration (see table 2.1 for the various steps of mandatory land readjustment). This declaration defines the readjustment area. It comprises a map and a list of all of the public and private properties included in the readjustment area (BauGB, section 47). The readjustment authority virtually merges these properties into one bulk of land designated for readjustment (*Umlegungsmasse*; BauGB, section 55, paragraph 1). Next comes the deduction of land required for public purposes. Land selected for the local infrastructure (e.g., access roads, walkways, parking lots, and children's playgrounds) is subtracted from the bulk of land designated for readjustment (BauGB, section 55, paragraph 2).

The remaining land is the bulk of readjusted land designated for redistribution among all landowners whose properties have been subjected to readjustment (*Verteilungsmasse*). Each landowner receives a new plot of land, suitable for building purposes, in the same location or a location similar to the landowner's prior property (BauGB, section 59, paragraph 1). The share of each landowner (*Verteilungsanspruch*) is proportional to the size or value of that landowner's property prior to readjustment (BauGB, section 56, paragraph 1). Landowners who receive less than their share are entitled to monetary compensation (BauGB, section 59, paragraph 2).

The readjustment authority concludes the process with a formal decision (*Umlegungsplan*; BauGB, sections 66–75). The readjustment plan modifies the boundaries of existing properties and other rights related to the land (e.g., easements). As soon as legal remedies against this decision are exhausted, the land register is modified according to the result of the readjustment procedure. The owners of the new plots may now use their land for the purposes designated in the land use plan. Owners who prefer to leave their property idle can be forced to develop their land only under extraordinary circumstances (BauGB, section 59, paragraph 7).

Land consolidation makes land more valuable. During the process of land consolidation, the municipal government has two opportunities to claim some of the readjustment gain. First, the land designated for public purposes is deducted from the bulk of land designated for readjustment. This land is strictly for uses that mostly benefit local residents. The remaining land may not be used for building purposes if land for public

Table 2.1 Five Steps of German Mandatory Land Readjustment

		The Land Readjustment Authority
Step 1	Commencement of Land Readjustment	• Define the area selected for land readjustment according to the recent land use planning. • Freeze changes of present land uses and transfer of rights in the land. • Map all properties, and list all landowners. • Indicate in the land register that land readjustment has commenced.
Step 2	Preparation for Land Readjustment	• Merge all properties into one bulk of land designated for readjustment. • Assess the present market value of the land. • Subtract all land designated for public use (e.g., local roads) and allocate this land to the municipality or development company. • Select relative value or relative size as the standard for the redistribution of readjusted land. • Determine the share of each individual owner.
Step 3	Value Capture and Reallocation	• Determine the value of the readjustment gain that owners have to pay to the municipality (standard of relative value) or that may be retained in land (standard of relative size). • Consider the present and proposed uses of the land as well as the needs and suggestions of landowners. • Allocate readjusted plots of land to each owner. • Determine the compensation of landowners who have not received their full shares.
Step 4	Readjustment Plan	• Issue a formal decision on land readjustment. • Determine the rights and obligations of each party, including the municipality. • Include a map of the new property boundaries. • Make legal remedies available to all parties. • Issue a public notice when, upon exhaustion of all legal remedies, the readjustment plan has become legally binding.
Step 5	Implementation of Readjustment Plan	• File the readjustment plan with the land register. • Monitor the legal and actual implementation of the readjustment plan.

purposes (e.g., local roads) has not been set aside. The second opportunity for value capture arises shortly before the readjustment authority distributes the readjusted plots to the owners. At this point, the value capture depends on the standard of distribution chosen by the readjustment authority.

The law distinguishes two standards of distribution: the standard of relative value and the standard of relative size (Dieterich 2006, 144–152). Under the standard of relative value (BauGB, section 57), each landowner is entitled to a new plot that is at least as valuable as her former plot. As the bulk of readjusted land is smaller but more valuable than the bulk of land designated for readjustment, a landowner may receive a new plot that is considerably more valuable than her former plot. In this instance, the landowner must make a payment to the municipal government equal to the surplus value. Under the standard of relative size (BauGB, section 58), the readjustment authority may retain a fraction of the land as reimbursement for the municipal readjustment efforts. The amount of land retained must not exceed 30 percent of the readjusted land (if the land is developed for the first time). If the readjusted land has been developed previously, the readjustment authority must not retain more than 10 percent of the readjusted land.

In Germany, the practice of mandatory land consolidation has been refined to an art form. Most landowners whose properties have been included in land readjustment are happy with the process (the fact that all costs are paid by the local government adds to the joy). German land readjustment blends planning law, real estate appraisal, and land surveying in a most productive way. Moreover, by combining mandatory and voluntary elements, land readjustment has become an effective, efficient, and fair way to prepare land for development (Seele 1982, 194–295). The readjustment community was surprised when several dissatisfied landowners filed a complaint with the Federal Constitutional Court.

The Court's Ruling

In the 2001 case (BVerfGE 104: 1–13—*Baulandumlegung*), the petitioners claimed that mandatory land readjustment would be unconstitutional because it violated their civil right to property. Private property is protected under article 14 of the *Grundgesetz* (GG), the German constitution:

- The right to property is protected, but federal or state legislation may determine the content and scope of property (paragraph 1).
- Property is an obligation; its use shall also serve the public good (paragraph 2).
- Property may be taken, or expropriated, only in the public interest. A taking is constitutional as long as it is prescribed by a legal statute that also determines the right to compensation (paragraph 3).

Private property is also protected under article 1 of the First Protocol to the European Convention on Human Rights. The petitioners and the 2001 ruling of the Federal Constitutional Court did not consider this provision, however.

The petitioners claimed that mandatory land consolidation would amount to a taking and would violate their right to property in that the right to property protects the free use of property in its present form. Any compulsory change of property impinges on the owner's freedom. Coercion takes place even if a landowner can expect a plot of readjusted land that is at least as valuable as her former property. Also, no landowner must be forced to accept a readjusted plot, even if the readjusted land is more valuable and more suitable. In short, the petitioners claimed that happiness must never be mandatory. As a taking, mandatory land readjustment would contradict the specific requirement set out in article 14, paragraph 3 of GG. A taking is constitutional only if it serves the public good. The development of land whose owners do not wish to use their property as designated by the binding land use plan—and cannot be forced to do so—would not constitute a compelling interest of the public.

The German Federal Constitutional Court responded by agreeing that mandatory land readjustment affects property protected under article 14 of GG. The court described the constitutional protection of property as a legal safeguard for individual freedom with respect to personal wealth. As each individual may use her property as she deems fit, property would be the foundation of self-determination and private initiative.

While the court conceded that mandatory land readjustment would have an effect on private property, it concluded that this effect would not amount to a taking. A taking permanently removes private property for public purposes. In mandatory land readjustment, land is taken only temporarily, and primarily for private purposes. Land consolidation would achieve a balance between the interests of private landowners. Its explicit purpose would be to establish new boundaries of land designated

for development only if landowners cannot negotiate such an agreement among themselves. Moreover, the deduction of a fraction from the bulk of land designated for readjustment would also serve private interests. Land cannot be developed unless some of it is set aside for important local infrastructure.

As mandatory land readjustment would not fit the definition of a taking, the court assumed that readjustment law would simply determine the content and scope of property. Such regulation must not be unfair, disproportional, or one-sided. Regulation must not, for example, put a burden on a single owner. Mandatory land readjustment, as set out by German planning law, would pass this test. The law would merely help landowners unfold the full freedom of their property by preparing the land for development. If the existing boundaries remained unchanged, the land would never be used for building purposes. In this case, the binding land use plan would be futile.

The court also stated that landowners would mutually depend on one another's willingness to modify the shape and size of land designated for development. Since some landowners need the assistance of the readjustment authority, the law would have a legitimate purpose. Also, land designated for development would have a particular social value. If such land remains idle because of unsuitable property patterns, the court found, planning for a more sustainable and socially balanced spatial development would be wasted. Since the amount of land cannot be increased, landowners must accept a specific obligation, implicit in their property, to help prepare their land for the real estate market.

Ultimately, the court did not find the current system of mandatory land readjustment to be unfair, disproportional, or one-sided. All landowners would have the right to new land plots of proportional value or size to their land before readjustment takes place. The new plots might even be more valuable. Moreover, at each step of the process, the readjustment authority would have to take the interest of each owner into account. The authority would have to use its discretionary powers with a view to a fair balance between all participating landowners. It must never overstep its powers, such as by attempting to achieve goals not considered by statutory law. Besides, the readjustment authority would have to achieve a fair balance between public and private interests. In conclusion, the German Federal Constitutional Court found that mandatory land readjustment did not violate the constitutional right to private property (GG, article 14).

Reflections on Mandatory Happiness

Regulation or Taking?

In their case against mandatory land readjustment, the petitioners claimed that German planning law was unconstitutional because of the lack of a compelling public interest in the readjustment of land. Under article 14, paragraph 3 of GG, property may be taken for the public good only (*zum Wohle der Allgemeinheit*). The attack on mandatory land consolidation was based on the notion that the land was readjusted predominantly in the interest of private owners. In the absence of a compelling public purpose, this process forced mandatory happiness on an owner who disagreed with the readjustment of her land. This argument is valid only if mandatory land readjustment is, from the constitutional perspective, an *Enteignung* (expropriation, taking, compulsory purchase). Otherwise, there would be no constitutional urgency to confirm whether mandatory land readjustment serves a public or a private purpose. If the taking of private property fails the public interest test, it is unconstitutional. In Germany, the government may not exercise eminent domain to promote private interests (BVerfGE 74: 264–297 [1987]—*Boxberg*). If, however, mandatory land readjustment does not qualify as expropriation, there is less of a constitutional need to determine whether it serves a public or a private purpose.

The legal nature of *mandatory* land readjustment—regulation or taking of property—is a problem of constitutional law and takings jurisprudence. It also involves planning theory and political philosophy. If a taking of private property in reality does not amount to a legal taking, the government has greater latitude to meddle with its citizens' affairs (even if all landowners are fully compensated in kind or with money). Some people may call such intrusion "more effective planning" or "instigated cooperation." But under the rule of law in a democratic society, the public good must be advanced by methods that are available according to the law. Extralegal reasons, even if they are persuasive, never justify public interference with individual liberty. Accordingly, even the most convincing argument for compulsory land consolidation, as long as it does not conform to the law, is unacceptable for planners in a democratic society.

Is the court correct in ruling that mandatory land readjustment does not amount to a taking of private property? Mandatory land readjustment brings three distinct kinds of interference with landowners' property.

First, the initiation of a readjustment process puts on hold all changes of the current uses or the transfer of rights in the land designated for readjustment (BauGB, section 51). This interference with private property, as the court found, is constitutional unless the freeze lasts for an undue amount of time or the landowners are treated unequally. Second, before the bulk of readjusted land is distributed to the former owners, land designated for public purposes is deducted and assigned to the municipality (BauGB, section 55, paragraph 2). And third, readjustment gain can be captured by the municipality as payments from landowners or as a deduction of up to 30 percent of the readjusted land (BauGB, sections 57 and 58). Although the court addresses the first and second forms of interference with private property, it does not say much about the constitutionality of value capture. The second and third forms of interference with property deserve closer attention from the takings perspective.

German constitutional law distinguishes between the regulation and the taking of private property. As legislation may determine the content and scope of property (GG, article 14, paragraph 1), the use of land can be subjected to public control. In Germany, property is not a natural right. When statutory law determines the content and scope of property, the law is not bound by a concept of natural property. Whether groundwater belongs to the landowner is not determined by case law, tradition, or public expectations. Under the German constitution, the legal nature of groundwater is determined by statutory law. German water management law excludes groundwater from the private property of the landowner. The law regulates the content and scope of private property; it does not direct that property be taken (BVerfGE 58: 300–353 [1981]—*Naßauskiesung*). In a similar vein, the designation of roads by a land use plan does not take the property of abutting owners, even if they suffer from noise caused by traffic (BVerfGE 79: 174–202 [1988]—*Verkehrslärm*).

Control by regulation, although perhaps a substantial interference with property, is not the same as *Enteignung* or taking. In its 2001 decision on mandatory land readjustment, the German Federal Constitutional Court distinguished the taking from the regulation of private property by applying the following test:

> The state, executing an expropriation, takes the property of an individual. Expropriation takes away specific individual legal rights protected under article 14, paragraph 1, of GG to meet specific public purposes. Any expropriation takes away certain legal rights, but not all takings of rights qualify as

> expropriation within the meaning of article 14, paragraph 3, of GG. Expropriation occurs only if objects are acquired compulsorily to put into practice a specific project that serves a public purpose. As long as existing rights are taken for the balance of private interests, the law determines only the content and scope of private property. (BVerfGE 104: 9–10 [2001]; author's translation)

The court drew this test from earlier case law. Neither the killing of a rabid dog (BVerfGE 20: 351–363 [1966]—*Viehseuchengesetz*) nor the forced sale of a defaulting debtor's real estate (BVerfGE 46: 325–337 [1977]—*Zwangsversteigerung*) has been considered to be a taking of property. The government needs neither the dog's carcass nor the house for a specific project that serves a public purpose. The public project test limits the possible scope of expropriation profoundly. Under this test, even the restitution of property after reunification did not expropriate the current landowners whose property was taken away to satisfy the claims of former owners (BVerfGE 101: 239–274 [259] [1999]—*Vermögensgesetz*). After all, the government did not wish to keep the land, and it did not need the land to build schools or roads.

Justice Evelyn Haas (2002), a member of the First Chamber of the Federal Constitutional Court, ascertained that no other test would satisfy the court's takings jurisprudence. The takings test must not be confined to the fact that property has been physically taken. Also, it would not matter that the owners whose property is physically taken receive something in return—whether they are paid in money or receive a readjusted plot—in order to rule out expropriation. Only the presence or absence of a specific project that serves a public purpose would be decisive in determining whether property has been taken or merely subjected to regulation.

Land Readjustment as Taking

The public project test applied by the German Federal Constitutional Court has a peculiar consequence. Assume that a government confiscates private property utterly arbitrarily (not to protect the public against rabies or to help creditors of defaulting debtors). As the government does not pursue a specific project that serves a public purpose, the confiscation would not qualify as an expropriation. Obviously, the takings test applied by the German Federal Constitutional Court limits the protection against expropriation to a rather small group of cases. The blatant abuse of power, however, would not be a taking in the constitutional

sense as long as the government does not pursue a public project. No court would have the power to consider whether the government has taken private property for a legitimate purpose within the meaning of article 14, paragraph 3, of GG. Even if owners may still be protected under article 14, paragraph 1, of GG, the court denies them the protection of the public interest and compensation clause in paragraph 3.

Presumably, the taking away of property in the course of mandatory land readjustment is an expropriation within the meaning of the German constitution. The public project test is much too narrow. But even if one applies the public project test, mandatory land readjustment implies the taking of private property. Section 55, paragraph 2, of BauGB specifically provides for the deduction of land from the bulk of readjusted land. This land that has been designated for public purposes in the binding land use plan is deducted by and assigned to the municipal government for the development of local infrastructure. Section 123, paragraph 1, of BauGB explicitly recognizes the provision for local infrastructure (*Erschließung*) as a public purpose of the municipality. Certainly, the development of local infrastructure, such as access roads or children's playgrounds, is a specific project serving a public purpose. Even if this infrastructure is of particular use to the local residents, including the owners of the readjusted land, it is public property. It is developed on public land that once was private land. It is hard to comprehend why section 55, paragraph 2, of BauGB does not, in fact, authorize the expropriation of property. Moreover, section 55, paragraph 5, of BauGB allows that even more land may be taken from the bulk of land designated for redistribution. This land is used for public purposes specified in the binding land use plan. In this instance, readjustment law is obviously applied to secure land for public projects—a case of expropriation even within the narrow limits of the public project test (Christ 2002, 1518–1520).

The German Federal Constitutional Court points out that without local infrastructure, the remaining land could not be developed and used for building purposes. This is true. With respect to the public project test, however, it is also immaterial. The public good, not only a private interest, is advanced by developing local infrastructure. Obviously, access roads to private residences are also used by the fire brigade, other emergency vehicles, or the mail service. Cities have a great interest in owning local infrastructure because they can charge landowners for servicing their building plots, put supply lines below the surface, or demand cleaning fees (Schmidt-Eichstaedt 2005, 427–444). Assuming

that local infrastructure is in the best interest of landowners, the court avoids the consequences of its own public project test.

The court also fails to explain why capturing the readjustment gain is not a taking of property. If the municipality uses the benefit from value capture for indistinct purposes, such as balancing the municipal budget, value capture fails the public project test. However, the benefit of value capture is quite often reinvested into the development area. It is used to develop additional infrastructure (beyond the scope of section 55, paragraph 2, of BauGB) or to pay the costs of the readjustment process (Seele 1982, 185–187). In these instances, value capture passes the public project test; the taking of private property to acquire land for public projects is a taking.

Many authors in Germany agree with the court's decision and, in particular, do not consider the deduction of land for infrastructure development to be a taking (see, for example, Spannowsky 2004; Uechtritz 2001). Some also have emphasized that additional constitutional restrictions have been put on planning and land law. A land readjustment authority wishing to conform to the standard of property protection would have to refrain from full value capture. Also, future legislation would be barred from putting aside more land for ecological purposes or infrastructure (Christ 2002, 1527–1528). This would prevent using land consolidation for ecological compensation.

In 1998, ecological compensation was established as a legal tool to help mitigate the adverse effects of land conversion. Under this scheme, a developer has to put aside a fraction of the land designated for development and pay for its ecological improvement. Alternatively, a developer may pay a fee to the municipality for the purchase of land suitable for ecological compensation at a different location. Municipalities can apply land readjustment law in order to organize and manage ecological improvement (Teigel 2000). However, if Justice Josef Christ is correct, the 2001 ruling on *Baulandumlegung* seriously impedes ecological compensation. Unfortunately, his view can draw from the flawed reasoning of the Federal Constitutional Court.

As soon as land readjustment is not recognized as a taking within the meaning of article 14, paragraph 3, of GG, the time-honored German system of land consolidation cannot rely on eminent domain. Naturally, the land readjustment community, although in agreement with the court's ruling, does not appreciate this consequence. Experts on land readjustment emphasize how greatly city planning benefits from the deduction of land for infrastructure and from value capture (Kötter,

Müller-Jökel, and Reinhardt 2003). Yet, although the German system of mandatory land readjustment has proven its practical value in countless cases, expediency is not a constitutional argument. Without appreciating that mandatory land readjustment constitutes the taking of private property, no one can operate the value capture mechanism to its full extent. Unwittingly, the land readjustment community, by denying the legal nature of mandatory land consolidation, has set the stage for the demise of efficient land consolidation.

Many legal systems would consider mandatory land readjustment to be, or at least to encompass, the taking of private property. These systems, however, would not take issue with Germany's land readjustment concept. As landowners suffer no loss of property value (and often receive more valuable plots of land), the German system satisfies the fair balance test applied by the European Court of Human Rights as well as the compensation test applied by the U.S. Supreme Court. The 2001 decision of the German Federal Constitutional Court on land readjustment is wrong. Even under the public project test, at least some elements of mandatory land readjustment qualify as the taking of private property. The misanthropic landowner described in the introduction to this chapter actually suffers expropriation of his property. But is he, in fact, subjected to mandatory happiness?

Mandatory Happiness

People know best what makes them happy. Even if they do not, who has the right to force them to think and act differently? We may consider the beliefs and actions of others to be unreasonable, inconvenient, or stupid. Perhaps we can persuade them to think or act more reasonably, conveniently, and wisely. But as long as their beliefs and actions do not impinge on the public good, the government should refrain from interference. Nor may the government define happiness or compel individuals to be happy. Unless they are causing harm to others, people in free and democratic societies have the right to pursue happiness on their own terms. In Western societies, the notion of happiness is closely connected to the notion of free will. Individual liberty is a necessary, although not a sufficient, condition of happiness. We cannot expect somebody who is subjected to legal coercion to be happy. And we must never assume that hoping to compel happiness is a legitimate shortcut through the legal provisions protecting individual rights and freedoms. The expectation

that a person exposed to the full force of the law should be happy is no substitution for the full protection of civil rights.

Occasionally, the government enforces laws demanding that individuals do or avoid doing certain things. All legal systems protecting civil rights also allow the government to restrict these rights. Children have to go to school; drivers must be sober; airplane passengers must offer their luggage for inspection; landowners must respect zoning ordinances and building codes. In each case, however, the restriction of individual rights serves a public purpose. The public good suffers if citizens cannot read or write, if drunken drivers kill bystanders, if airplane passengers carry explosives in their luggage, or if landowners use their properties harmfully. However, restrictions to civil rights are legal only if the government remains within the limits defined by constitutional law. The German constitution and the First Protocol to the European Convention on Human Rights protect private property. These provisions also explicitly authorize the government to interfere with private property in certain cases. When interference with property goes beyond the limits of this authorization, however, it goes too far.

If mandatory land readjustment were, in fact, a case of mandatory happiness, it would be unconstitutional. Perhaps landowners who do not modify the boundaries of their properties in accordance with a land use plan are stupid. Maybe they do not recognize their best interests. Maybe they will be happy when the readjustment authority has adjusted their land. None of these reasons justifies coercion. A legal system that protects private property also protects, at least to some degree, the foolishness of its owners. The whole notion of private property is based on the idea that owners decide how to use their property. Property is destroyed once the government starts second-guessing landowners about *their* happiness. Yet, this action does not contradict the government's duty to restrict land use in the public interest.

From a legal as well as a moral viewpoint, the desire to compel citizens to be happy is intolerable. A landowner who does not agree to the readjustment of her property must not be forced to accept land consolidation for the sake of her own happiness. This, however, does not mean that the German system of mandatory land readjustment is unconstitutional. Its constitutionality and, more important, reasonableness do not derive from the superior knowledge of the government about how landowners could be happier with their properties.

Land Readjustment and Land Policy

In Germany, land designated for development is mostly readjusted through negotiations, not through government power. The element of power frequently yields to the element of consensus. Even if statistical data about voluntary land readjustment are not available, we may conclude from the small number of court cases that land consolidation is mostly a matter of negotiated agreements. However, many voluntary land consolidation projects assume the look of compulsory land readjustment in order to profit from advantages ranging from tax benefits to the expertise of municipal readjustment authorities. Succinctly, Hartmut Dieterich (2006, 349) calls these hybrid practices "consenting compulsory land readjustment" or *vereinbarte amtliche Umlegung*. This phrase also helps us see compulsory land readjustment as a valuable ingredient in a carrot-and-stick approach to land consolidation. Successful land readjustment probably needs to combine elements of power, liberty, and community. We can achieve such a combination only with a strong commitment to consensus building, but we also have to hang on to a reliable stick.

The practical relevance of voluntary land readjustment sometimes obscures the legal nature of compulsory land readjustment. Although landowners are happy in most readjustment cases, under German law land consolidation is more than the balancing of private interests. Compulsory land readjustment is a taking of private property. Considering how much farther German planning law could go, the current system of compulsory land readjustment is a "soft" taking to account for the interests of landowners. Sections 45 to 84 of BauGB establish a form of expropriation that is so subtle that it appears to be a service or regulation. With good reasons, legal experts claim that mandatory land readjustment promotes the interests of private landowners (Dieterich 2006; Spannowsky 2004). It would be wrong, however, to neglect the fact that mandatory land readjustment also serves a compelling public purpose.

Mandatory land consolidation is an instrument of land use control, not simply a service to landowners. Municipal governments not only determine new uses of the land, but they also readjust the land to make sure that these new uses are put into practice. Since the actual change in the use of the land may not be in an owner's interest, a municipal government may change the boundaries of existing properties even with-

out the owners' approval. Why does such a power serve a public purpose? If designated land is developed promptly, the planning authorities can rely on a more direct satisfaction of the consumers' demand in land (and must not create a surplus of development opportunities by zoning more land than absolutely necessary). Also, the swift development of land designated for building purposes helps protect open space from a less-controlled growth of settlement boundaries. And most important, mandatory land readjustment confines the strategic use of private property.

Consider the misanthropic landowner in the introduction to this chapter. He owns a farmhouse and scattered properties acquired for the sole purpose of blocking future development. As the city grows, new areas are needed for residential and commercial uses. Why should the landowner who owns only a fraction of the land required for development have the power to stop planners from designating this land for development? Mandatory land consolidation is mandatory for exactly this reason: Landowners who do not have full ownership of the area designated for development must not be allowed to obstruct the happiness of other landowners or the public. Eminent domain is the appropriate response to landowners who want to get more than their right to private property affords them.

Fortunately, many German landowners are not misanthropic. They benefit from mandatory land readjustment, have no objections to the operation of their local readjustment authority, and even agree to the expedient combination of voluntary and mandatory land readjustment (Burmeister 2003; Dieterich 2006, 321–385). These landowners, however, are not the ones who are affected by mandatory land consolidation. The compelling public purpose—the justification of the taking of private property in the course of mandatory land readjustment—becomes obvious only in the case of the misanthropic landowner. Naturally, the misanthropic landowner is not interested in voluntary land consolidation. He is not interested in development at all. As long as he owns all the land designated for development, he will get what he wants—no development. If he uses a relatively small property holding, however, to prevent development, his property claim turns into a public nuisance. In such cases, the exercise of eminent domain is the only way to protect the legitimate interests of the other landowners as well as the public good.

Conclusion

Mandatory land consolidation is not about mandatory happiness. It is about the finely honed edge that a planning authority needs in order to deal with obstinate landowners. The fact that this edge is not needed on a daily basis speaks in favor of land consolidation in Germany. However, whenever the readjustment authority meets resistance, it may—and should be able to—employ force.

The justification of including even the most misanthropic landowner in a readjustment process is the assumption that private owners should not derive strategic power from their property that goes beyond their individual rights. It has nothing to do with the debatable assumption that land readjustment is in the best interest of all owners because it adds value to private land. After trust, after bargaining, after win-win solutions, and after consensus comes the power of eminent domain. In a democratic society under the rule of law, no planning system should relinquish this power.

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BVerfGE = Entscheidungen des Bundesverfassungsgerichts (Decisions of the German Federal Constitutional Court). Please read "BVerfGE 104: 1–13 [2001] — *Baulandumlegung*" as "Decisions of the German Federal Constitutional Court, volume 104, pages 1 through 13, year of the decision, keyword in German."

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CHAPTER

3

Much More Than Land Assembly

Land Readjustment for the Supply of Urban Public Services

RACHELLE ALTERMAN

Assembling land to supply the variety of public needs is a problem shared by local government, planners, and developers across the world. This problem transcends property systems and is not unique to the private freehold tenure system. Land assembly is also problematic in mixed systems in which public and private property rights coexist and even in systems in which the government owns the land but the market governs a significant amount of physical development initiatives.

One of the most promising tools for land assembly, a tool that can operate across land tenure systems, is land readjustment. However, land readjustment is practiced in only a limited number of countries. While there is no scarcity of academic literature about land readjustment, the literature is just beginning to look in depth at how this tool functions in practice within different land tenure contexts and at its effectiveness relative to alternative tools for assembling land.

Israel as a Case Study

Though small, Israel possesses four attributes that make it a good laboratory for studying land assembly issues.[1] First, it represents a broad spectrum of land tenure regimes that operate together, and the challenge

[1] The discussion of the laws, court decisions, and planning policy in this chapter apply to Israel in its pre-1967 international borders, excluding the occupied areas. Under international law, Israeli domestic law does not apply to the occupied areas.

of supplying urban public services cuts across all of them. Second, Israel has a high rate of demographic growth relative to other countries with advanced economies and thus must supply much land for public services. Third, because land is scarce and is quite expensive in many regions, purchase of sites for public services is a financial burden, and local governments need to invent solutions that do not burden the public. Fourth, Israel inherited land readjustment many decades ago, so this instrument has been operating alongside the more common ways of assembling land for public services. Israel therefore provides an excellent opportunity to study and evaluate land readjustment in comparison with the alternative land assembly tools available in most countries.

To date, international literature on land readjustment has been oblivious to the Israeli experience. Yet Israel has one of the world's most widely practiced systems of land readjustment, and uses it for a wide range of purposes in both urban and rural areas.[2] Planners in Israel have been applying land readjustment for many decades. For the most part, land readjustment has been successfully defended in the courts, despite the increasing entrenchment of property rights law and ideology.

Israeli planners and lawyers take land readjustment for granted, unaware that land readjustment is to be found in only a few countries in the world. They are not aware that they have one of the more effective versions of land readjustment—one that planners in many other countries might envy. Initially an esoteric tool applied only in very special conditions, land readjustment in Israel has evolved into the preferred option in many contexts and regions. My guess is that, in Israel today, the proportion of land readjustment–based local plans is among the highest in the world. (No comparative statistics are available to corroborate this hypothesis.)

This chapter analyzes the version of land readjustment practiced in Israel. Among the wide range of purposes that land readjustment serves in Israel, the focus is on the supply of public infrastructure and other services. The core of this chapter is an analysis of the legal aspects of land readjustment, its relationship to property rights, and its advantages (and some disadvantages) compared with alternative instruments for assembling land for public purposes.

[2] In the absence of comparative statistics, I rely on my own "guesstimate," based on my familiarity with planning practice in several countries that use land readjustment and on reading the international literature. None of the major academic analyses of land readjustment were aware of the Israeli experience. See Doebele (1982); Archer (1986, 1999); Schnidman (1988); Fernandez (2001); Minerbi et al. (1986); Larsson (1993, 1997); and Sorensen (2000).

The basic underpinnings of land readjustment are well established in law and practice and are not likely to be challenged in the courts. However, the relationship between land readjustment and property rights is paradoxical. On one hand, the increasing popularity of land readjustment is a result of its relative advantage over alternative public planning tools in preserving property rights; but on the other hand, certain important elements of land readjustment are currently threatened by the rising trend of property rights protectionism. This trend might lead to the gradual erosion of the utility of land readjustment.

Before delving into the analysis of land readjustment in law and practice today, two short detours are in order: a brief historical account of how land readjustment landed in this small corner of the world, and an introduction to the Israeli geodemographic and economic contexts to explain the growing demands placed on the use of land. An introduction to Israel's land tenure system explains in greater detail why local authorities find it difficult to finance the purchase of adequate amounts of land for public services and need to rely on a range of nonfinancial tools.

The main parts of this chapter are an analysis of the law and versatile practice of land readjustment and a comparison of land readjustment with the alternative land use–based instruments for obtaining land for public services. This analysis explains why land readjustment has become the preferred tool in many cases despite, or perhaps thanks to, Israel's growing trend of property rights protectionism. The conclusions attempt to draw lessons for potential transfer to other countries.

Historical Background

The history of land readjustment in Israel goes back to the time the British ruled Palestine (the region that became Israel, the West Bank of Jordan, and, more recently, the Palestinian Authority). The 1936 Town Planning Ordinance enabled reparcellation only with the consent of all landowners. The ordinance was absorbed intact into Israeli law, and in 1957, nine years after the establishment of the State of Israel, it was revised by the Knesset (parliament). The revision created a second track of land readjustment, in which it was not necessary to obtain the consent of all or most of the landowners. This important legal change enabled the expansion of land readjustment from an isolated to a large-scale practice.

The introduction of a nonconsent track was seen as necessary for the

quick pace of development of the new nation. The goal was to enable the development of as much vacant land as possible in order to enable the intake of waves of immigrants. Although most vacant land was already in public ownership, there was considerable private land in some regions. Private ownership as such has never been a detriment to development in Israel; some facts indicate the opposite (Alterman 2003). In some cases, because of Israel's special history, private ownership became a complex mix of known and unknown owners,[3] absentee and present owners,[4] and mixed public and private ownership. Land readjustment came to be an important tool for releasing such parcels for development without having to obtain the consent of all owners.

Today the range of uses of land readjustment in Israel has expanded well beyond its classical purposes of modernizing antiquated subdivisions and sorting out ownership patterns. Newer objectives include urban regeneration, densification, environmental conservation, historic preservation, and, of course, provision of an adequate amount and layout of land for infrastructure and public services. For all these purposes, the full-consent and the less-than-full-consent tracks function in parallel. As we shall see, the nonconsent track has proven to be most important.

Geographic, Demographic, and Economic Contexts

The steep increase in the use of land readjustment in Israel is partly reflective of the country's small size, fast population growth, and economic development. In 2006, Israel's population was seven million, having grown tenfold since 1948 (due to both immigration and natural growth).[5] Israel's land area is approximately 20,500 square kilometers (8,000 square miles), meaning that population density is approximately 300 persons per square kilometer (1,140 per square mile). This level of

[3] Thousands of land parcels that had been subdivided in the 1920s and 1930s were sold to Jewish families in the Diaspora. Most of the parcels were located along the Mediterranean coast, which later became prime land for development. Receiving the consent of numerous owners would be difficult in any context. In this case, many of the landowners had been murdered by the Nazis, and it was not possible to locate heirs or owners of parts of parcels. Thousands of parcels thus came under the custody of a special state authority.

[4] The 1948 War of Independence led to extensive absentee ownership. This land belonged to Arab families that left or were forced to leave during the fighting. The land later came under state ownership. In some cases, some family members remained and others left, resulting in co-ownership by the state and the original owners.

[5] At the time of independence in 1948, Israel's Jewish population was approximately 670,000, and the Arab population that remained in the area after the 1948 war was approximately 160,000 (*Statistical Abstracts of Israel 2000*, table 2.1).

density is already one of the highest in the world other than in city-states. Taking into account the fact that 50 percent of Israel's area is an inhospitable southern desert, the effective density is higher yet. Israel's population is already 92 percent urban—high in comparative terms. Intensive use and good management of land are therefore essential.

The standard of living rose from the level of a developing country in 1948 to the per capita GDP of approximately US$22,000,[6] lower than other Western countries, but much higher than developing countries. Economic development caused a steep rise in demand for developable land and in land prices. There has been a concomitant enhancement of the norms for public services and open space.

These factors have made it more difficult to rely solely on traditional land use regulation tools. The easy-to-develop land reserves have largely been exhausted. Land development today must contend with complicated land ownership patterns, with vested development rights that are no longer in accordance with current planning policies, or with underallocation of land for roads, schools, or open space.

Israel's Mixture of Public and Private Property Rights

Israel's spectrum of property rights regimes and mixture of national and private land make this country an interesting case study and holds lessons transferable to other countries.

Nationally owned land covers 93 percent of the country's area. An onlooker unfamiliar with the complexities of land policy regimes might conclude that Israel does not need land readjustment as a land policy tool. Wouldn't national ownership ensure an adequate and inexpensive supply of land for public services as well as unbridled powers for urban regeneration and restructuring? That is not the case. Public land ownership in Israel and elsewhere is not necessarily a recipe for easy implementation of public services.

In Israel, publicly owned land is leased out by means of long-term leaseholds for all types of land use—residential, commercial, and industrial. In the case of households, the life of a public lease extends over several generations, in fact indefinitely. Through a process similar to that in Hong Kong,[7] public leaseholds in Israel function in the marketplace

[6] Purchase power parity estimate for 2005 (U.S. Government, 2006)

[7] See chapter 6. Burassa and Hong (2003) report similar tendencies of public leaseholds in additional countries.

similarly to private land and have received a similar degree of protection from the courts as freehold land (Alterman 2003).

Not all land in Israel is public. There is also private freehold ownership, which, although small in absolute numbers, is much more important for development and the market. For a number of historical reasons, private property happens to be concentrated in central cities and other regions of high economic or demographic growth. The land readjustment method functions well within this entire spectrum of tenure rights. It is used extensively not only on private land, but on public land as well.

Land Use Regulation and Taxation

How does land use planning, including land readjustment, apply to nationally owned land? The answer is that the Israel Planning and Building Law of 1965 (the Planning Law) applies to government-initiated development and to public leaseholders in the same way as to private initiative and private landowners. The numerous real-property-based taxes also apply equally to private and publicly leased land. The land readjustment procedures thus apply similarly to nationally owned land and to private land. Often, sites targeted for land readjustment involve a mixture of public and private property rights and a variety of public and private developers.

Local Governments' Challenge

Local authorities in Israel, as in many other countries, rely on land use regulations such as compulsory dedications or exactions as substitutes for outright expropriation (eminent domain) of land for infrastructure and public services. One of the major uses (although not the only one) of land readjustment in Israel is for these purposes. Land readjustment is usually carried out by local authorities, and it is usually applied to help them overcome financial predicaments and legal constraints. Such constraints are increasingly faced by local authorities even in the wealthier countries (for example, as a result of voters' tax revolts or the receding involvement of central governments). The specifics of these constraints, however, differ from one country to another. To understand the place of land readjustment, it is necessary to know more about Israeli local governments.

The Financial Weakness of Local Governments

Local authorities in many countries have insufficient financial sources to buy up all the land sites necessary for supplying the full range and level of infrastructure and public services. The legal and financial powers of Israeli local authorities are weaker than those of their counterparts in some other countries with advanced economies. All but the most prosperous local authorities have weak tax bases and are dependent on central government transfers. Most major budgetary decisions require central government approval.

The land use and development controls offer local governments a set of instruments for obtaining land or financing in-kind. In this case, central-government control is less direct than in taxation and budgetary decisions. Land readjustment has become one of the major ways local governments compensate for their financial weakness. Proactive mayors and planners have learned how to use land readjustment and other tools creatively to link the approval of land use plans to the exaction of land or finances for the construction for public services (Margalit and Alterman 1998).

The Dearth of Municipally Owned Land

In view of the extensive national landholdings in Israel, one might think that local authorities would not have too much difficulty in obtaining land for public uses. But nationally owned land is managed by a central-government agency, which does not regard itself as primarily a land bank at the service of municipal needs. Municipalities in Israel do not usually have significant landholdings registered in their names (except for roads and the like). This is because Israeli municipalities have never practiced land banking in advance of development to any significant extent.[8]

In practice, sites designated for public services in land use plans may fall on either nationally owned land or private land, depending on the configuration of the land use designations. In the past, the Lands Administration was more generous in the amount of land it allocated for public uses, and it voluntarily transferred title to the municipalities. For legal and administrative reasons,[9] the Lands Administration is increasingly

[8] See Alexander et al. (1983); Alterman (1998, 2000, 2001, 2003); Alterman et al. (1990) [Hebrew].

[9] The legal reason has to do with the Lands Administration's desire to ensure that local authorities have to offer land to the Lands Administration before they may initiate a land use change in the future. The fear is that local authorities who were granted national land for, say, a school would change the land use designation to a commercially lucrative use and then sell or exchange the land for financial purposes.

acting like a private landowner. Paradoxically, the Lands Administration insists that the municipalities expropriate the land according to the full formal compulsory-purchase proceedings because the Planning Law grants the original owner the right of first refusal if the original use is changed (Alterman 1990a).[10] The Lands Administration does not believe that the local authorities should retain the dedicated land, and it wants the land returned.

Furthermore, much of the nationally owned land is already developed, and its holders are long-term leaseholders who have the same protections in the law as private owners. Therefore, despite the large national landholdings within or near cities and towns, municipalities are by no means free of worry about obtaining land for public services. Like planners in other advanced economies, Israeli planners must use the full scale of legal tools in their possession—regulative or contractual—in order to obtain enough land to serve public needs.

The Protection of Property Rights

In today's Israel, as surprising as this may seem to most readers, some aspects of property rights protectionism are more potent than in the United States, Canada, and most Western European countries (Alterman forthcoming b). This is especially true for the law of regulatory takings (to use a U.S. term) and of expropriation (eminent domain). As noted, most of the land area is nationally owned, and property rights protectionism encompasses this type of tenure as well. Through a gradual process over decades, today the public leaseholds are almost tantamount to freehold and receive the same degree of protection (Alterman 2003).

Constitutional Protection

Despite the quantitative dominance of state-owned land in Israel, the ethos of private property rights dominates today both legally and politically. Israel thus presents a dual set of laws and ideologies that on one hand bolster public ownership (or did so in the past) and on the other hand are increasingly placing private property rights on a high pedestal. Since the enactment of an important law in 1992 (and gradually before

[10] The common legal opinion and the practice are that local authorities are fully authorized to expropriate state-owned land under the same conditions as private property. Recently, some legal experts have cast doubt on this approach, but the High Court has not yet had the opportunity to rule on this topic.

then through case-based law), Israel's constitutional doctrine accords private property rights a very high degree of protection. This protection applies equally to property held under most forms of long-term public leaseholds (especially in urban areas).

The 1992 Basic Law: Human Dignity and Liberty carries constitutional or quasi-constitutional status. It has raised the protection of property rights, already quite high in prior Supreme Court decisions, to an even higher tier. Three articles are most relevant.

> *Article 3*. There shall be no violation of the property of a person.

This clause has no qualifiers, but all the rights protected by the Basic Law are qualified by a general clause:

> *Article 8*. There shall be no violation of rights under this Basic Law except by a law befitting the values of the State of Israel, enacted for a proper purpose, and to an extent no greater than is required.

Existing laws, including the Planning Law along with its land readjustment provisions, are grandfathered in and do not have to pass the test of Article 8. But all government agencies have to abide by Article 11:

> *Article 11*. All governmental authorities are bound to respect the rights under this Basic Law.

The Implications of the Basic Law for Land Readjustment

In assessing the implications of the Basic Law on land readjustment, one should distinguish between new legislation and the interpretation and application of the existing law. If the current rules of land readjustment were to be reenacted, my guess is that the legislation would easily pass the three open-ended criteria of Article 8. The courts are likely to accept that, in principle, "proper purpose" and "the values of the State of Israel" are met because land readjustment is part of a land use plan approved by the statutory planning bodies. An additional key attribute of land readjustment that "befits the values of the State of Israel" is the built-in rule of distributive justice. As for "proper extent," the courts would likely accept that, in principle, land readjustment usually meets this criterion because property values are usually enhanced through the application of land readjustment. In many cases, land readjustment will be the preferred avenue not only from the perspective of local authorities, but also from the landowners' perspective. By contrast, if the major alternative to land readjustment—compulsory dedication of land

(discussed below)—were enacted anew in its present form, it would in principle be unlikely to pass these constitutional tests.

A more complex legal question is the application of Article 11 to actual decisions made by planning bodies. Article 11 implies that when planning authorities have a choice among alternative legal paths, such as between applying land readjustment and compulsory dedication or other ways for assembling land, they are to select the avenue that least infringes on property rights. In specific situations, one of the alternative tools may be more beneficial to the specific landowners. If the courts were to decide on the legality of how land readjustment is applied in a specific situation solely from the property rights perspective, ignoring the public benefits or the equitable distribution among the landowners, they might rule that land readjustment should not have been applied in that particular case. If the extreme property rights position were to prevail in court decisions, some of the key advantages of land readjustment over the alternative tools might be diminished. This type of legal dilemma has not yet been clarified by case law, and the few decisions to date go in both directions.

In today's Israel, the protection of property rights thus has a double-edged effect on land readjustment. On one hand, the property rights orientation of many court decisions has greatly constricted the usefulness of the alternative implementation tools—namely, expropriation (eminent domain), compulsory dedication, negotiated development, or downzoning (to use a U.S. term). The restrictions on the use of these alternatives by the planning bodies leave land readjustment as the more attractive alternative in many cases. On the other hand, the heightened protection of property rights might also have the opposite effect on land readjustment. The enhanced legal status of property rights offers landowners new legal grounds to challenge the legality of particular applications of land readjustment. If these challenges prove successful, the relative advantage of land readjustment would gradually be reduced. In my view, this would lead to undesirable results for the general public good and in many cases for landowners as well.

The Legal Rules for Land Readjustment

The 1965 Planning and Building Law devotes chapter 3, section 7, to reparcellation. The Hebrew term for land readjustment in the Planning Law is *halukah hadasha*, which translates literally as "new division" or

"new allocation." Many Israeli practitioners still prefer the original term used in the 1936 Ordinance—reparcellation (pronounced with a Hebrew-like suffix as *repartzellazia*).

The 1965 law has basically kept the rules set out in the 1936 Ordinance as amended in 1957. The only noteworthy amendment, enacted in 1995, relates to institutions and procedures rather than to the key legal rules.

The Authority to Conduct Land Readjustment

Article 121 of the Planning Law sets out the basic authority to undertake land readjustment and also determines much of the process. Local planning commissions are authorized to conduct land readjustment by embedding it in a local outline or detailed plan.[11] Because land readjustment is anchored in a regular plan, it does not require a separate and special type of planning procedure. Unlike in Germany, land readjustment in Israel is part of the regular statutory land use planning and regulation process.

In Israel, unlike in Germany, the statute does not limit land readjustment to situations where land values go up or at least stay as before. In theory, land readjustment in Israel may apply to situations where the planning authorities wish only to distribute the burden of downzoning more fairly and evenly, without adding development rights. However, that is not the typical practice. The rationale and the underlying generator of land readjustment schemes is the capacity to enhance land values by means of upzoning. The de facto applications of land readjustment in Israel almost always entail value upgrading. In most cases, land readjustment releases land from situations where there are no development rights at all, where these are not feasible, or where the planning bodies are not ready to approve an upzoning because the current allocation or layout of infrastructure and public services is inadequate.

In Israel, land readjustment may be applied to a wide range of tenure rights. The Planning Law defines *owner* to mean not only freeholders but also long-term leaseholders, and not only individual ownership but also condominiums.

[11] U.S. readers can understand a local outline plan as a combination of elements of a land use plan along with zoning and subdivision regulations. Most approved plans are in fact amendments to outline plans. A detailed plan, depending on its size, may be like a small outline plan, a site plan, or a planned unit development. European readers (except the British) will recognize outline and detailed plans as similar to local plans prevalent in their respective countries. British readers can consider these plans as similar to their planning schemes before 1947.

Institutions and Procedures

Because land readjustment piggybacks onto regular statutory plans, it does not require the creation of special institutions. The regular planning bodies handle land readjustment alongside other plans and planning procedures. Israel's regular planning procedures provide formal hearing rights and several opportunities for administrative appeals.[12] In the case of land readjustment plans, the Planning Law fortifies the rights of public participation by adding an extra stage in the public participation process. In land readjustment plans, unlike in regular plans, the local planning commissions are required to send personal notices to each of the landowners (according to the broad definition noted above) early in the planning process. The landowners thus have the opportunity to conduct informal negotiations from the initial stages.

A 1995 amendment to the Planning Law created new and efficient institutions—the Direct Appeals Committees. They are tailored to hear appeals about specific kinds of planning decisions that concern property rights issues, including land readjustment. (The other topics are compensation claims and expropriations.) This new quasi-judicial body is professionally and administratively structured to handle detailed development-rights and land-valuation issues in a fair manner and with relative speed and efficiency. The Appeals Committee is authorized to appoint arbitrating appraisers, enabling it to reach a clear-cut decision.

The Two Tracks: Full Consent and Less-Than-Full Consent

The issue of owners' consent figures high in the literature on land readjustment. But both the Israeli and the German experiences indicate that obtaining formal consent may be of less importance than initially believed. In law or in practice, the consent and nonconsent tracks are not as diametrically opposed as they may appear.

Article 121 authorizes two tracks for land readjustment: one with the formal consent of all the owners, and one with less-than-full consent. As with German law, if even a single landowner does not consent, land readjustment is to proceed in the nonconsent track. The Planning Law sets out clear rules for the less-than-full-consent track. These offer distribution and protection to the landowners, as described below. In both countries, most land readjustment plans of significant size are undertaken through the less-than-full-consent tracks.

[12] Comparative research now in process shows that these rights are extensive when compared with such European countries as the United Kingdom and The Netherlands (Carmon and Alterman, in preparation).

The Rules Governing Reallocation

The literature about land readjustment talks about a step in which the existing subdivision is officially abolished and the plots are joined into a single mass, presumably to be registered under the name of the authority. An important attribute of land readjustment in Israel is that the "pooling" stage does not exist as a formal step. It is carried out virtually on the drawing board and in the calculators of the land appraisers.

Article 122 of the Planning Law sets out the rules of valuation and redistribution that apply to the track that does not require full consent. The assumption is that where there is full consent, the landowners will have also agreed on the allocation rules, so the legislation need not prescribe them. In practice, however, the landowners in the full-consent track usually choose to apply the same allocation rules as those that Article 122 sets out for the nonconsent track. This is a good indication that the rules prescribed by the legislation make sense in practice.

Section 122 prescribes three key principles:

1. The proximity principle: Each reallocated plot should be as close as possible to the original plot.
2. The proportionality principle: The proportionate value of each plot (whether vacant or built up) relative to the total value of all the plots in their original state should be as close as possible to its share of the total value of all the plots after reallocation. That is, the proportional share before and after the reparcellation should be as similar as possible.
3. The balancing fees: If it turns out that keeping the proportionate share of all the plots is not feasible, landowners who are in the "plus" must pay the excess value to the planning commission, and landowners in the "minus" have the right to receive the difference from the local commission. In professional jargon, these payments are called balancing fees. While this arrangement sounds fair and easy to administer in a self-financing mode, local planning commissions have learned (the hard way) that it is difficult to apply.

On paper, the "givings" and "takings" seem well balanced. In practice, they are not. Local authorities have found that landowners in the "minus" are quick to claim their fair share from the local planning commission, but that it is difficult to extract payments from landowners in the "plus." Therefore, savvy planning commissions and appraisers do everything they can to configure the parcel alignments so that the result

will fully abide by the proportionality rule without the need for monetary payments. While at times this may require compromise with the optimal configuration, there is usually enough leeway in land use planning and subdivision to accommodate alternatives.

The local or district planning commissions are authorized to decide the extent to which the proximity and proportionality principles should be adhered to (and extent to which balancing fees should be paid out). The second criterion represents the monetary value of the real estate to be received in place of the original plot. The first criterion was perhaps intended to represent the emotional attachment to place. The planning bodies have found that landowners (and therefore appraisers, too) usually place much more importance on proportionality than on proximity. There is hardly any case law on this seemingly difficult issue of competing criteria.

Land value appraisal is carried out by certified appraisers who are generally well skilled in conducting valuations for planning and taxation purposes. Because land assessment is never a science, assessments may be appealed (and often are, at more than one stage). The quasi-judicial Appeals Committee often assigns a third land appraiser as arbitrator.

The Buy-Out Option in Cases of Joint Ownership and Vertical Reallocation

Another important difference between Israeli land readjustment law and the classic use of land readjustment, as reported in the literature, is that the Israeli law enables the reallocation to be done not only through land parcels, but also through development rights. While this authority is not explicitly stated in the Planning Law, it can be indirectly deduced from the special attention given to situations in which the reallocation process does not yield separate plots for each original owner, but results instead in plots in joint ownership. To deal with such situations, Article 127 provides the following rules:

- If plots have been joined without the consent of the landowners and have not been reparcelled among the owners into separate plots, or if some of the plots have been reparcelled as jointly owned plots, owners who did not consent have the right to demand that the local planning commission purchase their[13] parts in the joined plots.

[13] This language is my own egalitarian upgrading; the original Hebrew and the formal translation into English made at the time use only the masculine. (There is no longer a formal translation into English of the Planning and Building Law's amendments).

- The local planning commission may notify owners about the period of time during which claims must be filed.

These rules set up what may be called a limited buy-out option. They are obviously based on the assumption that land readjustment can change the location or the size of land parcels, but it should not force people to share a property title. This wise human observation is, however, rarely relevant in practice; the joint ownerships that land readjustment creates are usually translated (once built) into condominium ownership in multistory buildings. Each owner ends up owning one or more separate residential or commercial units, with the units sized to match the proportionate shares. So joint ownership is usually not a problem because the units, once built, will be fully tradable in the marketplace.

Furthermore, landowners who wish to be released from a joint-ownership structure might be better off looking for buyers on the open market than forcing the local authority to buy the rights. To understand this seemingly counterintuitive statement, I should explain that land readjustment proceedings in Israel do not create a moratorium on the right to carry out market transactions, only on the right to build, which must, of course, await the conclusion of the process.[14]

In some countries, land readjustment legislation offers landowners a general buy-out option, not restricted as in Israel to cases where partnerships are mandatorily formed. But in the countries that incorporate this type of right into land readjustment law (or where there is a freeze on development), the buy-out option is usually not much better for the landowners than expropriation, and the law stipulates that the same rules of assessment and compensation apply. The marketplace might be more friendly.

The Alternative Instruments and Comparison with Land Readjustment

In addition to land readjustment, municipalities in Israel can obtain land for public services in four other ways: expropriation (eminent domain) of an entire parcel of land, downzoning or other regulation,

[14] A landowner's right to receive a plot of land in single or joint ownership has market value even at the early stages of land readjustment. There is usually no advantage to imposing the purchase on the local authority because it, too, would not offer more than current market value. Of course, the value of the properties before the process is completed will not reflect their full future value, but they certainly will reflect the expectation that the property will be upzoned. The rest is up to the market.

compulsory dedication (exaction) of a limited part of a plot of land, and negotiated exactions. Unlike land readjustment, these tools are used in many countries. To understand the advantages and disadvantages of land readjustment, it is useful to briefly present each alternative.

Expropriation (Eminent Domain)

An obvious tool for obtaining land for public services is what Americans call eminent domain, the British call compulsory purchase, and the international literature usually calls expropriation. The powers to expropriate land exist in most nations of the world. There are, however, differences in the legal conditions and restrictions.

The literature often presents land readjustment as an alternative to land expropriation (eminent domain). The argument is that land readjustment may be preferable to expropriation in some specific cases. By contrast, in Israel land readjustment is only occasionally used as an alternative to expropriation because the exercise of eminent domain is, in many cases, not a realistic option. In such cases, if no other tool were available, development might become frozen for a long time. More frequently, land readjustment is an alternative to less onerous (but also less efficient) tools.

There are two sets of reasons why expropriation is no longer commonly used in Israel. The first set is legal; Israeli courts have increasingly introduced many restrictions on the use of this tool. The second set is practical.

Legal restrictions

Without any change in the language of the legislation that authorizes expropriation of real property, in recent years the courts have gradually reinterpreted the law, considerably narrowing the range of public purposes for which land may be taken. A decision such as the famous U.S. Supreme Court's *Kelo et al. v. City of New London et al.*, 545 U.S. 469 (2005), may have been similarly decided in Israel in the past. In the U.S. decision, built-up residential lots were taken in order to assemble land and hand it over to a large private commercial concern. The rationale was that this would contribute to the economic revitalization of a city. Under current Israeli case law, my guess is that today's court would have decided on *Kelo* according to the minority opinion that government has no authority to expropriate people's homes in those specific circumstances. Israeli jurisprudence on expropriation is in some respects oriented more to property rights than its U.S. equivalents. The Israel courts

would, however, have an alternative, land readjustment, to recommend to the authorities. In the circumstances of *Kelo*, land readjustment would likely be fairer and more protective of property rights.

Gradually over the years, and especially since the 1990s, Israeli courts have been placing greater restrictions on the authority to expropriate land (see Dagan 2005, 116–129). In *Karasik v. The State of Israel, Israel Lands Administration et al.*, P.D. 55 (2) 625. H.C.J. 2390/96, a dramatic decision delivered in 2001, the High Court of Justice (with an enhanced number of judges) voided a decision by the Lands Administration to initiate a rezoning of land expropriated from private owners decades earlier for a distinctly public use that has since been phased out. The High Court unanimously concurred[15] that government is limited in its authority to substitute a new use for the original public use. In that particular case, housing should not be regarded as a substitutable public purpose because it could in theory have been developed by the original owner.

Needless to say, this decision and the lower-court decisions that follow it place greater restrictions than in the past on the range of public purposes for which property may be expropriated and especially on the reuse of the land once the original use is no longer necessary. From a legal perspective, expropriation of property is becoming more and more out of step with current needs for public services. Urban areas change through time, new public needs emerge, and the division of labor between public and private is becoming less distinct. Expropriation is therefore no longer as useful a tool as in the past in assembling land for services and amenities to the public.

Practical constraints

Beyond the legal constraints, expropriation is also not a practical option. There are three reasons. The first is that expropriation is never a popular measure, and Israeli voters in local elections may not like it.

The second reason is that municipalities would have to pay compensation for the property according to the value of the property under the original land use designation (a rule that may at times be lucrative for the municipality, and at times not, depending on the original designation). Because municipalities are generally financially tight, they do their best to avoid expropriation claims.

A third reason is that even though the law stipulates that, in many

[15] This decision is long and complex, and each of the judges presents a somewhat different rationale for the unanimous decision.

situations, government is authorized to take hold of the property immediately, the courts tend to be attentive to the landowners' position. Courts often issue injunctions that prevent the public authority from taking possession of the land before the financial claim is settled. In practice, expropriation usually entails long and expensive proceedings in the courts, during which the level of compensation is usually determined through lengthy negotiations with the landowners. The sum, once settled, often turns out to be considerably higher than the amount the legislators had envisioned.

Expropriation and the holdouts problem

Local governments in many countries (and at times private developers as well) encounter holdouts—a few landowners who refuse to participate voluntarily in land assembly or realignment. The negotiating leverage of the last remaining property owners is large, and their price may be very high. Expropriation is viewed as a solution for this type of problem. In Israel, however, the use of expropriation for holdouts would encounter the same lengthy and costly procedure as encountered in expropriation generally. An alternative may be the land readjustment nonconsent track. It could serve a similar purpose with greater fairness.

Regulatory Takings, Downzoning, and Compensation Rights

Another way of obtaining land for public services is by designating private land for a use that serves public goals without taking the title or the full economic use of the property. Although this method cannot cover the full spectrum of public needs, it may be feasible for some purposes, especially those that fall within the increasingly large category of quasi-public or public-private services. For example, in some cases local authorities may wish to designate private land for open space (such as green space that is open to a limited public only). Or they might rezone private land to permit only public-type buildings, such as those for health, education, or cultural uses. In some countries, including Israel, such designations might encounter legal challenges for what Americans call regulatory takings. The landowner may have the legal right to claim compensation for the partial value lost. In some countries, the owner may have the right to require the authority to expropriate the land and pay compensation.

Comparative research (Alterman forthcoming a) shows that Israel has one of the world's most generous legal protections of property rights

related to compensation for injuries caused by land use planning (regulatory takings). The statutory right to compensation dates back to 1936. The protection of property rights based on this statute has been gradually expanded both through legislative amendments and, most important, through the Supreme Court's interpretation of the phrase *unreasonable degree* of injury. Recent court decisions have ruled that compensation must be paid for a property that suffered as little as a 10 percent reduction in value due to the approval of an injurious amendment to a plan. Furthermore, the Supreme Court has interpreted the statute to cover not only direct injury but also *indirect* injury to the value of abutting plots from the approval of an amendment to the current land use plan (Alterman forthcoming b).

The right to compensation applies also to properties abutting or adjacent to land designated for roads, schools, kindergartens, or similar uses that are likely to generate negative externalities. Needless to say, the steep rise in compensation claims in recent years is increasingly worrying local authorities. The allocation of land for public services is likely to expose local authorities to a new financial burden caused by compensation claims from neighboring landowners.

Land readjustment can help preclude compensation claims. Because land readjustment redistributes land plots and land uses, and the proportionate values of the reallocated plots must be maintained, land readjustment can partially "internalize" or entirely eliminate potential decreases in property values. At the least, land readjustment can proportionately redistribute the decreases among the landowners. If, after the land readjustment process is completed and the plan is approved, there is still a decrease in the absolute property value, the landowner has the right to claim compensation.

Compulsory Dedication of Part of the Land

Planning practice in some, but not all, countries empowers local authorities to require landowners who are seeking permission to develop to transfer a limited portion of the land to the local authority for public needs. No compensation is paid. This practice has different names in different countries; Americans call it compulsory dedication. The specific rules differ from one country to another and, in the United States, from one state to another and among local authorities (for a comparative analysis, see Alterman 1988).

In Israel, compulsory dedication is the most widely used method for

obtaining land for public services. The Planning Law calls it "partial expropriation without compensation." Compulsory dedication is so well rooted in Israeli planning practice that it has become a benchmark for land value appraisals. Like most other land use instruments in the Planning Law, it applies equally to nationally owned land[16] and to private land. The maximum proportion of a parcel of land that a local planning body may require as dedication is 40 percent. The law permits the authorities to locate a wide range of public services on land exacted in this way. This range includes not only the traditional infrastructure (roads and playgrounds) permitted under equivalent instruments in many (but not all) other countries, but also schools and health clinics, sports facilities, community buildings, and religious facilities (see Alterman 1990a).

At this point, you may be wondering why land readjustment is needed, since local authorities have what seems to be such a powerful tool for obtaining land for public services. There are three limitations to compulsory dedications: quantitative, physical-geographic, and legal-constitutional.

On the quantitative level, although 40 percent may sound high, in most cases it is insufficient to provide all the roads, open spaces, and public buildings necessary in a typical neighborhood. This quantitative gap reflects Israel's high urban densities and relatively large family sizes.[17] With the rise in the standard of living, the range and quality of public services that voters expect have also risen. The 40 percent ceiling is often insufficient for supplying adequate public services. In a typical urban density of, say, 300 units per net hectare (120 housing units per net acre), more than 50 percent of a tract of land would be needed. So the compulsory dedication tool would not be enough, and local governments scramble for ways to bridge the gap. Without financial resources to purchase or expropriate the additional land, the local authorities look for further ways of using the land use regulation system. Here enters land readjustment.

The second constraint on compulsory dedication is physical-geographic. It arises from the difficulty of using compulsory dedication to assemble

[16] The right of local planning commissions to exercise this power over nationally owned land that has been leased out is not in question. Their power to exact land dedications from the Lands Administration for land still "in stock" was viewed as obvious and was not contested for many years. Recently, the Lands Administration has been arguing that there is no such right. This is currently a topic of legal debate.

[17] Children are prime consumers of public services, and differences in average family sizes may entail large differences in public land requirements.

adequately large and contiguous sites. Urban land parcels that come into development today are rarely large and undivided (except where nationally owned land is still undivided). Moreover, in today's Israel, planning policy encourages urban containment through infill and redevelopment rather than through extension into scarce open space. This means having to contend with the existing configuration. If land readjustment is not applied, the 40 percent limit would have to be calculated and physically demarcated for each individual parcel, thus making it difficult to collate contiguous land for public services in a rational alignment.

The final constraint—the legal-constitutional limitation—reflects the growing protection of property rights. For many years, planners and lawyers had assumed that the compulsory dedication instrument was immune to claims of compensation. After all, it was argued, the authority to apply compulsory dedication is grounded in explicit legislation and for decades has been applied in almost every statutory plan. The practice has become so routine that, when a parcel has not yet undergone reduction in size through dedication, its market value reflects this expectation. Empirical research found that, in the majority of cases, the planning authorities find that they do not have to go through the full legal procedures of compulsory dedication. Landowners who are interested in a new plan routinely sign away the relevant portion of land before the planning bodies apply their formal powers, because they know that the requirement is well grounded in precedent and need.

However, in recent years, through a complex legal grafting of arguments, landowners have been able to win several court decisions that are gradually limiting the usefulness of compulsory dedication. They argue that the remaining developable part of each parcel should show a direct benefit from the part taken for the public; that is, there must be positive externalities measured in a rise in property values. But if land dedication is to serve a variety of community services, it is not possible to meet this criterion for each and every parcel and each and every public use. Some public infrastructure or services produce only positive externalities (such as a cul-de-sac road or green space that does not draw noisy or criminal users), but other public services may produce a mix of both positive and negative externalities depending on their location vis-à-vis each individual parcel (for example, through-roads, kindergartens, schools, or community centers).

In other words, the 40 percent compulsory dedication instrument does not have a built-in mechanism to ensure distributive justice of positive and negative externalities. Recent property rights–oriented court

decisions have opened the door (albeit slightly) to a new legal ground for landowners to file lawsuits—one that would have been hard to imagine a decade or two ago. Landowners who dedicated the customary 40 percent may now be able to claim compensation for the decline in the value of their property as a result of the anticipated use next door, such as a kindergarten, a health clinic, or the like.

The result of the courts' property rights orientation is a gradual reduction in the effectiveness of the compulsory dedication tool. Where land values are high (and that's where the claims tend to occur), such claims could create an enormous financial burden on the municipality and would in effect offset the benefit of the land ostensibly dedicated free of charge. Most landowners and lawyers have not yet realized the significance of the recent court decisions, and the 40 percent compulsory dedication instrument is still practiced as a planning routine in most towns and cities. But an increasing number of quasi-judicial and court challenges will continue to erode its usefulness. Because land readjustment has a built-in mechanism for allocating the positive and negative externalities equally and justly, thus avoiding compensation claims related to the 40 percent dedication, land readjustment is increasingly becoming the preferred tool.

Negotiated Exactions

Where compulsory dedications are either not sufficient or not geographically feasible, local governments increasingly rely on negotiated exactions. The secret to understanding why landowners and developers may at times be willing to negotiate over additional contributions is that existing statutory plans are often anachronistic. They either do not permit nonagricultural development, or they allow development rights considerably below market demand and below what current planning policy would permit. To have an amendment approved, the developer, either private or public, needs the local planning authorities. They can therefore negotiate for more land dedications or for commitment to construct certain public infrastructure. Since the margin of land value increase is usually high, landowners and developers are usually willing to allocate more land than the compulsory 40 percent or to carry out in-kind construction of a public facility in order to have their development rights upgraded. Due to the usual shortage of land for public services, the planning authorities can generally justify the need for extra dedications.

However, negotiated exaction has limitations, too. It is usually reactive, not proactive, and ad hoc rather than comprehensive. For the give-and-take relationship to exist, the local commissions must usually wait for the landowners or developers to approach them to request an amendment. The leeway for negotiation varies case by case according to the land value increments and to the balance of interests of the various sides.

In Israel, negotiated exaction is not yet explicitly grounded in legislation. It relies on the contractual powers of the authorities and on the willingness of the courts to interpret planning powers broadly. As with negotiated exaction everywhere (regardless of whether it is explicitly authorized in a statute), in Israel this type of exaction is often in the gray area of the law and is susceptible to legal challenge.[18] Furthermore, negotiated exaction obligations are not transparent to the public, and the rules and formulas are not uniform. In some contexts, municipalities view negotiated exactions as preferable to land readjustment because they are likely to be faster and, in some cases, less susceptible to court challenges (because contracts have been signed). Yet in many other contexts, land readjustment is preferable because it provides more legal certainty for all sides, because it can be used proactively by the planning authorities, and because its rules are clear and transparent.

Limitations of Land Readjustment

No land use planning tool is perfect. Even in its flexible and fair Israeli version, land readjustment has limitations—some legal, others practical.

The Legal Challenge Regarding the Ceiling for Allocation for Public Use

Earlier in this chapter, it was mentioned that the escalating legal protection for property rights in Israel has a double-edged effect on land readjustment. The discussion of the alternative tools for obtaining land or financing for public services pointed out the positive edge: the advantages of land readjustment over the other tools. Also noted was how the growing protection of property rights tends to diminish the utility of

[18] In England, for example, negotiated benefits are explicitly authorized by the legislation, yet they are challenged from time to time. See Healey et al. (1995).

each alternative tool and to enhance the attractiveness of land readjustment. But the heightened protection of property rights also challenges some aspects of land readjustment. If the challenges should prove successful, the relative advantages of land readjustment over alternative tools would be reduced.

The legal challenges are not to the basic constitutionality of land readjustment. They are based on the interpretation of the existing legislation in light of the Basic Law's constitutional protection of property and on Article 11 regarding situations where the administrative planning bodies are in a position to exercise discretion regarding alternate ways.

The major unsettled legal question is whether land readjustment is subject to the same limits regarding set-aside of land for public purposes as the 40 percent compulsory dedication or whether it has its own internal rationale that exempts it from this limit. According to one view, planning authorities doing land readjustment are allowed to deduct up to only 40 percent of the mass of land, regardless of the contents of the readjustment plan. This view is based on a complex legal grafting of the law regarding compulsory dedications onto the law governing land readjustment. So, even if the densities allowed after the readjustment are high (and property values have increased accordingly) and even if the development needs more land for public uses, land readjustment could not be used to allocate more public land. The authorities are expected to pay for the extra land but, as explained above, this is not realistic financially.

If this position were to prevail in the courts, it would undercut one of the major advantages of land readjustment over the alternative land use–based options. Because each of the alternative instruments is inferior to land readjustment in both law and practice, restricting land readjustment would result in either undersupply of land for public services or greater reliance on negotiated exactions, a tool that is inferior both legally and socially. This interpretation of the law has supporters among some legal scholars and lawyers and has found its way into some administrative and quasi-judicial decisions and into at least one District Court decision. The arguments of those who hold this view have remained on the theoretical level; they do not address the large-scale consequences of its adoption.

The second position (which I hold) says that land readjustment is an independent, free-standing instrument with its own internal rationale. If landowners all benefit from the increase in development rights, the plan-

ning authorities are empowered to dedicate as much land as needed for public uses. Recent empirical research shows that this position reflects the dominant practice by many (perhaps most) local planning commissions.[19] This interpretation of the law also has supporters among lawyers (especially in the public sector) and real estate practitioners and from administrative and quasi-judicial decisions, including the ruling in another decision of the very same District Court (by another judge). It so happens that the two contradictory decisions were about the same land readjustment plans and with almost identical facts.

As yet, there is no Supreme Court ruling on this important legal controversy. The sides in the conflicting decisions mentioned above both appealed to the Supreme Court but were encouraged to settle out of court. However, the issue comes up routinely in planning decisions, so one can expect it to reach the Supreme Court in the not-distant future.

To contribute to the legal debate and help the court reach (what I consider) the right decision, a graduate student and I conducted field research (Hevroni and Alterman 2007). We interviewed representatives of a sample of nine local planning authorities in various parts of the country and also studied the files of sample of land readjustment plans in each local planning area, looking especially at whether landowners submitted objections about the amount of land deducted for public use. We found that most of the planning authorities we interviewed use land readjustment extensively and usually allocate more than 40 percent of the land mass to infrastructure and public services. They view land readjustment as the preferred instrument. Landowners rarely contest these allocations because they generally view land readjustment as a process that increases their development rights and prefer it to alternative processes.

The Time Issue

Land readjustment is often assumed to take more time than some of the alternatives it replaces. If one looks only at the length of time of the procedures within the planning bodies, this claim may be true.[20] As noted, the Planning Law requires the planning authorities to first identify

[19] This is corroborated by recently conducted field research (Hevroni and Alterman 2007 [Hebrew].)

[20] There are no base data available. Research that I supervised in 1980 for a thesis by Nehama Amirav (not published) did show a longer average time for land readjustment procedures. That was, however, before many of the procedures in the Planning Law were amended and, most important, before Israeli society became litigious.

the owner (or other legal status) of each plot and then send each owner a personal notification. Because land readjustment deals directly with issues of land values, development rights, and criteria for reallocation, the process is likely to draw the direct involvement of the landowners. Owner participation is certainly a desirable process, but it is time-consuming. However, if one adds in the time taken by administrative appeals to quasi-judicial bodies and by litigation in the courts, it is not certain that land readjustment would turn out to take longer than the alternatives. There are no empirical data on this topic.

Even if, on average, land readjustment takes longer than other land use or property instruments, the outcomes of land readjustment in terms of land assembly and allocation for public purposes can be assumed to be superior on many counts. The time variable should be assessed along with other criteria of outcomes. Systematic assessment of this sort has, however, not been researched in Israel or (to the best of my knowledge) in the other countries where land readjustment is practiced.

Conclusions for Potential Transfer

Local authorities in many countries are increasingly relying on land use regulation as a substitute for outright purchase of land for infrastructure and public services. Local governments are often short of cash, voters are not favorable to more taxes, and central government's transfers are less generous than in the past. Similar trends have occurred in Israel as well, so local governments have found it necessary to rely on the instruments available through the land use Planning Law and to adapt them creatively. Land readjustment has increasingly become one of the most attractive tools to local governments.

Israel possesses several attributes that make it a good laboratory for studying land readjustment and for drawing potentially transferable lessons for other countries and contexts. First, Israel harbors a broad spectrum of land tenure regimes—from national ownership to private property—and land readjustment is applied to the full range. Thus, the lessons from Israel are potentially relevant to countries with various property systems.

Second, Israel has a high rate of demographic and economic growth. Thus, planners in regions of high growth (such as the U.S. sunbelt) may

find land readjustment as practiced in Israel to be an attractive growth management tool.

Third, in addition to land readjustment, Israel uses the same set of regular tools as other countries to achieve land assembly. The parallel application of alternative tools provides an opportunity to assess land readjustment comparatively. The fact that land readjustment has been successful in Israel while competing with these other tools is a good indicator of its attractiveness and its potential transferability.

Fourth, Israeli law and jurisprudence have become increasingly protectionist of property rights. Both planners and landowners generally regard land readjustment as the more property-friendly alternative for implementing land use goals. If enacted today, it would likely withstand constitutional tests. Israel's current high level of property rights protection has not cast any doubt about the constitutionality of land readjustment. From a property rights perspective, land readjustment can be shown to be superior in principle to alternative options.

The application of land readjustment in Israel has gone beyond its regular use described in the literature. The extent of application of land readjustment in Israel is high, and it has not declined over the years despite the exhaustion of antiquated subdivisions. Israeli planners and decision makers have been able to adapt land readjustment legislation to changing development challenges and concepts without legislative change. Land readjustment is a major way of implementing a broad range of public purposes, such as unlocking complex ownerships and supplying land for public services, environmental set-asides, urban regeneration and restructuring, and a variety of other objectives. The range of purposes to which land readjustment is applied in Israel is probably broader than in most other countries. This chapter has focused mainly on the capacity of land readjustment to assemble, locate, and configure an adequate amount of land for a broad spectrum of public infrastructure and other services.

In view of Israel's high development densities in terms of housing units per area, planning bodies are called on to dedicate large proportions of land to public services. Land readjustment has been found to be the most effective and just tool. Planners in the United States and elsewhere who are looking for methods for growth management, urban regeneration, and higher densities may find land readjustment to be a useful tool.

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PART

III

Social and Cultural Issues

CHAPTER

4

Consensus, Persuasion, and Opposition

Organizing Land Readjustment in Japan

ANDRÉ SORENSEN

Perhaps the most striking aspect of land readjustment practice in Japan has been the extent of its use in the development and redevelopment of urban land. As Japanese land readjustment experts are proud to explain, land readjustment was carried out in almost 30 percent of the urban area[1] as of 30 March 2003. That was accomplished through 11,400 projects totaling 368,313.5 hectares, including land readjustment projects completed before 1954 under the old law, all projects completed since 1954 under the new law, and all projects still in progress.[2] It is an extraordinary achievement and almost certainly represents a much larger area and higher percentage of the total urban area than achieved by any other country.

Why has land readjustment been so widely used in Japan? What have been the social, political, and planning supports for Japan's successful use of land readjustment projects as a major urban development tool? Who have been the prime movers in planning, initiating, and managing projects? Why was land readjustment a central feature of the planning regime from the 1920s to the end of the twentieth century despite enormous changes in Japanese political institutions, planning system,

[1] *Urban area* is the area of Densely Inhabited Districts (DID), the standard census measurement of built-up areas introduced in the 1960 census. DID areas are defined as contiguous census tracts with a population density of greater than 40 persons per hectare and a total population of 5,000 or more.

[2] Based on data published in Nihon Toshi Keikaku Kyoukai , Kensetsusho Toshi Keikaku Nenpo (2004, 792).

economy, and national wealth? How have conditions changed in recent years?

One of the most common explanations by Japanese land readjustment experts for their successful use of land readjustment has been the long Japanese tradition of collaborative and consensual decision making and group mobilization. According to this interpretation, the extensive use of land readjustment has been possible because Japanese people are less individualistic and more cooperative than are citizens of Western countries. As Nishiyama argued, "Western town planning constitutes control of land use by the government and can be called 'town planning by public authorities' whereas land readjustment is a collaborative project by landowners who contribute land and can be called 'town planning through co-operation'" (1992a, 4). He later argued that "Neighbours initiate a process of consensus-building and work toward their common benefits, and the project cost is financed by portions of land from landowners and public funds. This is the foundation of land readjustment projects" (1995, 1). Similarly, Nagamine suggested that "the essence of land readjustment is to let people and government join hands in coping with the ordeals of rapid urbanisation" (1986, 58).

While it is no doubt true that land readjustment projects in Japan rely on a great deal of cooperation by participants and that Japanese citizens are raised to work well in groups, there are several problems with emphasizing the Japanese propensity for consensus as the basis of land readjustment. First, it seems to suggest that countries that do not share this admirable trait will be little able to benefit from the Japanese approach to land readjustment. While few nations celebrate individualism to the extent that the United States does, equally few claim the degree of group harmony that Japan does. That this is not a trivial point was underlined by a Thai participant in an international land readjustment seminar who, commenting on the serious difficulties experienced in gaining landowner consent for a demonstration land readjustment project in the northern part of Bangkok, noted ruefully that Thai people are not as cooperative as the Japanese. Thus, it seems useful to evaluate how important such consensus really is for Japanese land readjustment. If Japanese land readjustment practice depends on a culturally rooted ability to achieve consensus based on traditional village values, it seems unlikely that Japanese methods of organizing land readjustment will be transferable to countries other than those that sustain such traditional patterns of social relations, if any still exist. On the other hand, if more

modern patterns of decision making and self-interest are in fact at work, perhaps the rest of the world has more to learn from Japan.

Second, although Japan has special traditions of groupism and consensus formation, it is worth approaching the Japanese concept of consensus critically. This is not merely a question of translation, although the Japanese term is often used to mean "to consent" or "to give permission," a considerably narrower concept than *consensus*, which, according to the *Concise Oxford Dictionary*, means "to achieve general agreement." More important, the notion of consensus is closely tied to Japanese history and politics during the twentieth century, and there are sharply differing interpretations of what such concepts really mean for understanding Japanese society. Further, the long history of often bitter conflict over land readjustment projects in Japan, which is seldom mentioned by those who emphasize consensus as the basis of Japanese land readjustment, suggests taking such interpretations with a grain of salt.

Third, the notion of consensus and group harmony is not necessary to explain why land readjustment has been so important and successful in Japan. Other factors fully explain the dominant role of land readjustment in Japanese planning. Some of them are reviewed later in this chapter.

Fourth, while consent to land readjustment projects could be relatively easily obtained at one time, that may no longer be true. In fact, despite intensive efforts to persuade landowners to consent to projects, recent success rates have been low, and organized opposition movements have been remarkably successful in derailing planned projects.

Ultimately, land readjustment has continued to be important in Japan because local governments had few other means of achieving basic infrastructure in areas of urban growth.

Japanese Consensus: Myth and Reality

The idea that Japan is a particularly harmonious and consensus-oriented society has a long history. Possibly the best known proponent of this view is Doi (1973), who argues that a distinctive psychological inclination toward dependence on superiors and a lack of a need for individuality among Japanese people facilitated the formation of a society in which the promotion of group goals and harmony is particularly valued. Similarly, Nakane (1970) develops the idea that Japanese people value the maintenance of harmony within groups and have a highly developed

sense of status distinctions and respect for vertical hierarchical relationships. The common explanation of this group harmony orientation is the long history of rice cultivation, in which small corporate villages had to work together to manage common irrigation facilities and other assets to survive (Fukutake 1982, 36; Ishida 1983, 8; Nakane and Oishi 1990). There is no doubt that this background has had enduring influences on Japanese society. Admirable characteristics of Japanese society that have contributed greatly to the nation's economic success—social stability, low crime rates, and strong urban communities—are closely related to the ability to work well in groups. Among the prominent admirers of this positive side of Japanese groupism are Dore (1973), Vogel (1979), and, more recently, Fukuyama (1995). This is only part of the story, however.

It is important to realize that this group orientation is in part the product of artifice. Since the last decade of the nineteenth century Japan's conservative political leadership has actively sought to reinforce Japanese traditions of village solidarity and deference to authority in order to further national goals. Fukutake (1982) and others stress that these enduring village value structures formed the foundations on which the pre–World War II Japanese political culture of nationalistic social mobilization was built. Conservatives saw the villages as the bedrock of Japanese values of mutual support, diligence, thrift, and obedience to authority, and from the time of the Russo-Japanese war (1904–1905) to the end of World War II, they used national moral suasion (*kyouka*) campaigns to reinforce traditional social structures (Garon 1997; Pyle 1973). As Fukutake put it:

> In spite of the variety of changes which took place in the villages as a result of Japan's modernization the constraining power of the village community to paper over the contradictions of the village stratification system in the name of solidarity and harmony did not diminish. Numbers of new organizations were formed from the turn of the century—cooperatives, women's institutes, youth groups, and so on—but they all retained the principle of all traditional village organizations, namely that every villager in the eligible categories should automatically become a member. And the operations of these groups followed the same principle as traditional village meetings, namely that all decisions should be taken by unanimous agreement (1982, 38).

Such decision-making structures relied heavily on the deference of those lower in the status hierarchy to those above and on the need to

preserve the harmony of the group by avoiding unpleasant disagreements, even at sometimes significant costs to individuals (see Dore 1978).

On a larger scale, nationalistic social mobilization practices in the prewar period focused on the transfer of the traditional village values of groupism and deference to authority to the new nation-state through the creation of a number of new national myths that borrowed heavily from feudal-era neo-Confucianism. These centered around the emperor, who was at once considered a constitutional monarch, a deity, and the patriarchal head of the national family whom all Japanese were to follow as they did their own father (Gluck 1987, 36–37). Eccleston describes the Japanese family state this way:

> Within this context of the nation as a family the actions of individuals were expected to be based on selfless service to their immediate group, and thereby the state. Self-assertive behavior at whatever level was labeled as a dangerous, antisocial and deviant trait which transgressed the conformist thrust of national familism. Individuals were guided towards the ideals of service and loyalty through a centralized system of compulsory education and military conscription, but for those whose individualism survived these processes, a comprehensive local police force used repression to eradicate dissent (1989, 12).

This conception of the emperor as a national father figure proved powerful in the prewar period. It effectively mobilized the old Confucian traditions of ancestor worship and deference to the family in support of the modern project of nation building (Fukutake 1982, 46–47; Ishida 1983, 5). Cooperation and consensus were never associated with notions of egalitarianism or individual rights, but rather with deference to authority and obligations to the group, whether family, village, company, or nation.

That group loyalty and deference to authority have had many positive ramifications is clear. It is also important to recognize, however, that these qualities have also been abused by those in authority, as was the case during the disastrous imperial expansion that led to destruction and defeat in World War II. During the period of rapid economic growth in the postwar period, the government routinely took advantage of traditional patterns of deference and group loyalty to overcome local opposition to industrial development projects that, even in the short run, harmed people's health and the environment (Broadbent 1998; Ui 1992). In the environmental crisis of the 1960s, hundreds died and thousands suffered painful and debilitating illnesses while the central government

actively aided and protected polluting companies by, for example, blocking research that linked pollution to specific illnesses. The pollution victims were widely shunned by mainstream Japanese society until their victory in the courts in the early 1970s proved the justice of their cause; public opinion then shifted to their support (see George 2001; Ui 1992; Upham 1987). In these cases, the state systematically took advantage of traditional patterns of deference to authority and group allegiance to prevent the emergence of organized opposition and to undermine opposition that arose (Broadbent 1998).

The decade of the 1960s was a major turning point in the development of political opposition and environmental activism and conflict in Japan (see Sorensen 2002, 200), but the popularity of consensus as an explanatory framework continued. During the 1970s and 1980s, a large body of Japanese literature on *Nihonjinron*—the theory of Japaneseness—attempted to explain Japanese economic growth as a product of the consensus society. The idea that Japan was particularly egalitarian, lacking in major social conflicts, and easily able to form social consensus on major issues was widely believed (see Dale 1986; Sugimoto and Mouer 1989). Two points made by the critics of Nihonjinron theories are worth noting. First, they argue that the term *consensus* has a special meaning in Japan, where the variety and power of social controls are great, and that Japanese notions of harmony and consensus can serve to mask actual power relations (Reich 1983; Sugimoto 1986). Sugimoto (1986, 67) in particular argues that the authoritarian basis of social control is so strong that Japanese groupism is merely an expression of an effective system of social control. He suggests that the important questions are "who defines the contents of consensus, in whose interests is consensus formed?"

Research in the early 1980s attempted a reinterpretation of Japanese politics and society based on the assumption that the study of conflict can be just as revealing in Japan as elsewhere (see Koschmann 1978; Krauss, Rohlen, and Steinhoff 1984). One conclusion was that the distinctive feature of Japanese society is not the lack of conflict, which occurs in Japan as much as anywhere, but rather the attempt to pretend it does not exist. This certainly seems to be the case with land readjustment; even though vigorous opposition movements have been part of land readjustment organizing since the beginning, such conflict is almost never mentioned in standard accounts of Japanese land readjustment development.

One prominent early example of the lack of consensus is the large-scale and intense opposition to land readjustment projects for the recon-

struction of Tokyo after the Great Kanto earthquake of 1923. The opposition movements protested the compulsory contribution of 10 percent of their land without compensation, and their major goal was to postpone the projects so that the system of land assessment and compensation could be revised. The movements had considerable initial success, and the Tokyo City Assembly passed a motion opposing compulsory participation in land readjustment in February 1925. In March, the lower house of the Japanese parliament unanimously passed a similar motion and proposed fundamental changes to the Ad Hoc Act for Reconstruction. The Reconstruction Bureau offered only minor changes to the compensation package and proceeded with the projects as planned, and opposition gradually died out (Ishida 1987, 158; Koshizawa 1991). Similar opposition erupted when the plans for land readjustment projects for Tokyo reconstruction in the late 1940s were made public. Movements also formed to oppose many individual projects in the postwar period (see Sorensen 2000a). A still-active national land readjustment opposition organization was formed in the 1960s to coordinate anti-land readjustment campaigns and provides education and analysis of how to defeat planned projects (Kukaku Seiri Taisaku Zenkoku Renraku Kaigi 1973, 1983).

It is misleading, therefore, to suggest that Japan is particularly consensual and harmonious or that it is unusually devoid of social conflict, even though it clearly has different traditions and approaches to managing such conflict. Traditional patterns of deference to authority and the urge to avoid overt clashes have had some long-term influences, however. Well-recognized status hierarchies within villages tended to mean that the larger landowners who had clearly and openly dominated village life in the prewar period continued to hold considerable power in the postwar period. For example, in the process of organizing land readjustment projects, it is still standard practice to go first to the largest landowners. Once they have been persuaded to support a project, they help convince smaller landowners to consent. While the endorsement of a few prominent figures would have led inexorably to the consent of all landowners in the prewar and early postwar periods, however, such deference has gradually weakened since the 1960s. The environmental crisis of the 1960s boosted the legitimacy of groups opposing development, and social prohibitions on open dissent have greatly weakened (Sorensen 2002; West 2005). One consequence is that land readjustment project organizing has become considerably more difficult.

It seems fair to conclude that, to a great extent, the role of consensus

and collaboration in land readjustment is a myth. Like most myths, it has a basis in truth. Traditional Japanese society was structured on strong hierarchical lines, and there were powerful pressures on those lower in the hierarchy to defer to the wishes of those above them. In the prewar period, such deference to authority meant that once the largest landowners in an area had agreed to a land readjustment project, consent could be reached relatively quickly and easily. In the postwar period, such traditional social structures gradually eroded, however, and land readjustment project organizing has been much more difficult since the 1960s, with widespread and often bitter opposition to planned projects by landowners. An increasingly large number of planned projects have had to be abandoned before they could be legally begun. There are no national statistics on the number of such failed projects, but, as shown below, the number is probably very large.

Other Factors Encouraging Reliance on Land Readjustment

Although sociopolitical factors may have aided Japanese land readjustment project organizers in gaining the consent of landowners, a number of other factors may have been even more important in encouraging the widespread use of land readjustment in Japan. First, highly fragmented patterns of land ownership in areas on the urban fringe meant that some system of plot consolidation and rearrangement was necessary. Fragmentation was due in part to the traditionally high densities of rural population and very small farms allowed by wet-rice agriculture (Ginsberg 1991), to centuries of land trading and land subdivision (Francks 1984), and particularly to the postwar land reform that broke up virtually all the large landholdings and redistributed the land to the former tenants who had tilled it. All the land of absentee landlords, all leased-out land in excess of one hectare of cultivating landlords, and all owner-cultivated land above 3 hectares (12 hectares in Hokkaido) was purchased from 2,341,000 landlords and resold to 4,748,000 tenants (Dore 1959, 138). This resulted in a sharp reduction in the number of operated holdings above two hectares, while operated holdings of less than a half hectare increased from 33 to 41 percent of all farms. Further, the enormity of the task and the requirement for speed meant that scattered and irregular landholdings were not consolidated as part of the process (Teruoka 1989). Some system to reorganize and consolidate landholdings was essential to the achievement of rational patterns of urban development.

A second important factor is that the proportion of land in public ownership is relatively small in rural areas in Japan, particularly in comparison with North America and other colonized countries, where the state assumed ownership of all land and allocated it to settlers while retaining generous portions for public use and road allowances. Until the twentieth century, virtually all travel in Japan was by foot, and farm labor was by hand, with little use of draft animals. Throughout the country, roads were narrow, and people used footpaths for access to fields. Centuries of high-density human settlement and intensive use of land in a context of constant pressure on food supplies had created efficient settlement patterns that allocated little land for public space, particularly compared to the huge demands for road space in modern industrial economies. A key challenge for Japanese urban planning throughout the twentieth century was to gain ownership of land for public use, particularly for roads but also for parks, schools, and other public facilities. For example, between 5 and 9 percent of the total land readjustment areas in Omiya were in public use before the land readjustment projects, while between 25 and 30 percent were in public use (mostly for roads) after the projects. Most municipalities have been financially unable to buy the enormous amount of land needed for public facilities, and a key motivation for using land readjustment has been its requirement that participating landowners contribute about one-third of their land for public uses and for sale.

An important third factor promoting the use of land readjustment has been Japan's extremely strong land ownership rights. This is in part a cultural legacy; the ownership and control of land traditionally formed the basis of political and economic power. The attachment to land ownership is also closely related to the notorious stickiness of the Japanese land market and the legendary unwillingness of Japanese farmers to sell land, which have created a variety of problems for urban-fringe land development and are important causes of urban sprawl. It has also been argued, however, that Japanese land ownership behavior can be explained as a perfectly rational response to a variety of legal and tax policies that strongly encourage land ownership and speculation (see, e.g., Hanayama 1986; Noguchi 1992). Perhaps more important is that the continuity of strong land ownership rights in Japan appears to be closely related to the enduring political power of landowners. This resulted not only in the strong protection of land ownership in the Meiji constitution of 1889 (Inamoto 1998) but also in the reaffirmation of those rights in the postwar constitution, despite American attempts to insert

language affirming the priority of the public good over individual ownership rights (Tsuru 1993, 27).

Strong land ownership rights have had an important effect on urbanization and have greatly contributed to the reliance on land readjustment for land development. The use of expropriation to assemble large plots of land is legally possible but in practice extremely difficult. Expropriation courts have long sided with landowners and have tended to award generous compensation, even for undeveloped rural land. This greatly contributed to the expense of purchasing land for public use. Compared to land assembly through purchase or expropriation, land readjustment projects can be seen as a means to protect existing land ownership rights, since the original landowners still own the bulk of the land after project completion.

Perhaps the most important result of strong land ownership rights, however, is that establishing an effective system to control the development of rural land to urban uses appears to have been politically impossible. In most other developed countries, a variety of development control systems have evolved to ensure that land developers provide basic public goods such as local roads, sewer systems, local parks, and even schools when they develop land to urban use, but that connection has remained weak in Japan. The establishment of such a system was one of the main goals of major revisions to the City Planning Law in 1968, which included the creation of the development permit (*kaihatsu kyoka*) system linking permission to such infrastructure provision. However, the loopholes were broad, and subsequent deregulations rendered the system ineffective (Hebbert 1994; Inamoto 1998; Sorensen 1999). In North America, the relatively large size of farms on the urban fringe and the orderly grid of roads allowed the effective use of simple systems of subdivision control, but such approaches would have been much more difficult in the Japanese context of small irregular plots. Nevertheless, the wide variety of effective systems to manage land development in Europe suggests that the weak Japanese system is more a result of political choices than of insuperable technical obstacles.

An important result of Japan's lack of an effective development control regime is that enormous areas on the urban fringe have developed as haphazard sprawl that lacks services and that such areas have continued to spread (Sorensen 2001, 2002). In these areas, most housing is built along narrow farm lanes; while the municipal government must pipe in fresh water to all houses, the lack of sewer systems means that most houses rely on holding tanks and regular visits by tanker trucks to dis-

pose of liquid waste. Since land can be subdivided as-of-right and landowners are able to develop plots smaller than 1,000 square meters without a development permit, small developments called *Minikaihatsu* (literally, mini-developments) that have no services have proliferated. Enormous amounts of basic infrastructure have not been built, and sprawl has continued to spread, as have its well-known problems of poor road networks, lack of parks, dangerous lack of access to high-density urban areas, and high costs for retroactive provision of basic public goods. The weak land development control system has combined with traditionally fragmented rural land ownership patterns, a tax system that encourages land hoarding and speculation, and low pre-urbanization amounts of publicly owned land to create a desperate situation for the local governments charged with managing urban growth. Residents of such areas pay high taxes for poor services, while landowners sell land at fully urban values without bearing any costs of the infrastructure that creates those values (Mori 1998).

Further, because of the highly centralized system of urban planning law and the weak legal authority of prefectural and municipal governments to establish stronger systems of development control, even local governments that promise to strengthen development standards have had few powers with which to comply (Ishida 2000; Sorensen 2002). Little wonder that local governments are such strong supporters of land readjustment. Apart from public land developments, such as for public housing and new towns, and the small percentage of land development carried out under the development permit system, land readjustment is the only way to ensure adequate basic infrastructure at a reasonable cost and to ensure that landowners bear some of the burdens of urban development through their land contribution. In this context, municipal and prefectural governments have been creative in developing a wide range of techniques to persuade landowners to participate in land readjustment projects.

Evolving Techniques of Persuasion

The central role of persuasion in land readjustment organizing is not new. In the prewar period, the institutionalization of landowner persuasion techniques was pioneered in the Nagoya area. Land readjustment organizers worked hard to persuade the leaders of local communities, who were commonly also the largest landowners, to consent to land

readjustment projects in broad areas on the fringe of the growing city (Nishiyama 1992b). Land readjustment organizing centered on the time-consuming process of meeting all landowners within the designated project area and persuading them to consent to the planned project. Organizers appealed not only to their community spirit in arguing for better local development patterns, but also to their nationalism in furthering national developmental goals and to their self-interest in gaining from the development of rural to urban land. In the postwar period, this approach was gradually adopted nationwide. One significant result is that land readjustment organizing became one of the main activities of local planning departments. For example, the land readjustment departments in all the larger cities of Saitama included about half of all city planning staff members, equal to the staffing of the zoning, development permit, building control, parks, infrastructure planning, public works construction, and maintenance departments combined.[3]

The importance of land readjustment is further indicated by changes to the city planning system that were designed to make land readjustment organizing easier. For example, the land readjustment law of 1954 allowed local governments and other government bodies to initiate land readjustment projects directly, without the consent of landowners, when important planning goals were at stake. Another important example is the 1959 revision that allowed the use of revenues from the gasoline tax, which were dedicated to road construction, to subsidize land readjustment projects that included arterial roads, at a rate equal to the cost of buying the land required for the road (Ishida 1986, 83). The reasoning was that it was unfair to force local landowners to bear the burden of constructing arterial roads that would primarily benefit people outside the project area. Gasoline tax revenue quickly became the major source of funds for local government-led land readjustment projects and allowed the total area of new projects to increase from less than 1,000 hectares per year in 1955 to more than 3,000 hectares per year by 1960 (Kishii 1993, 13). Indeed, the entire history of postwar Japanese city planning can be told from the perspective of attempts to make organizing land readjustment projects easier, more applicable in such circumstances as inner-city redevelopment, and more attractive to landowners by responding to their concerns, such as by leaving some land for farming. These and other changes contributed to the extensive use of land

[3] Unpublished data from the Ageo city planning department, 1995.

The Formal Process of Land Readjustment in Japan

Although there are a wide range of specific procedures for different types of land readjustment projects, whether initiated by association, local governments, or national governments or as urban redevelopment projects, they all share some basic features. First, the precise boundaries of the target project area must be legally defined. Because land rights are affected, it must be clear whose land is in the project area. Since 1968, that has been the responsibility of local governments.

Second, a legal body is established to carry out the project. It includes a board of directors with members from the sponsoring agency and some landowners. In association-led projects, all landowners are members, but it is common for landowners in large projects to select delegates to represent them, so that meetings are not too unwieldy. Even in local government projects, a council of landowner representatives is established.

Third, a draft plan of roads, parks, and the like is drawn up, usually by private consultants. This plan is used to calculate the estimated project budget and determine what national government subsidies will be available, how much construction will cost, and how much land will be needed from landowners for public land and to sell to pay the balance of project costs after subsidies. A precise survey of all landholdings and other fixed assets, such as buildings and irrigation facilities, must be made.

Fourth, consent of landowners is solicited. For association-led projects, the legal requirement is that 66 percent of landowners owning 66 percent of the land must sign a contract consenting to the project before it can proceed. For local government projects, no such requirement exists, but in practice all projects require a high degree of consent. If they do not have adequate consent, they are extremely difficult to implement.

Fifth, the replotting design, financial plan, project implementation plan, and land contribution of each landowner must be approved. For association-led projects, there is again a legal requirement that 66 percent of landowners owning 66 percent of the land give their legal consent to the detailed plan before it can proceed.

Sixth, construction of new roads, sewers, and parks and the demolition and moving of buildings are completed.

Seventh, if all bills have been paid and all moneys accounted for, the project can be wound up and the organization dissolved. A financial shortfall must be paid by the project sponsor. That means the landowners in the case of association-led projects and government in the case of other projects. Surpluses must be spent within the project area.

readjustment in urban and urbanizing areas throughout Japan and clearly aided Japan's successful land readjustment practice.

One policy to enable the wider use of land readjustment was achieved in "flexible *senbiki*" during the 1980s. Flexible senbiki began in response to the announcement by the Ministry of Construction (MoC) in 1980 of the regulations governing the change of zoning designation between urbanization promotion areas (UPA) and urbanization control areas (UCA). The system of dividing city planning areas into UPA, where planned urban land development was to be promoted, and UCA, where land development was, in theory, not to be allowed, was one of the central features of the New City Planning Law of 1968. This system, which was carried out by prefectural governments, quickly became known as *senbiki* (literally, "drawing the line" between town and country). It was essentially an urban growth boundary intended to prevent urban sprawl, which was recognized in the 1960s as one of the key problems facing Japanese cities (see Hebbert and Nakai 1988; Nakai 1988; Sorensen 1999). The UPA area within the growth boundary was intended to include both built-up areas and a ten-year supply of undeveloped land. A review of development progress was to be conducted every five years to ensure that the ten-year supply was maintained. The MoC circular of 1980 was the first detailed information on the criteria that were to be applied in making changes to the growth boundary, and it was primarily designed to allow prefectures greater discretion in making such changes.

Unfortunately, the first senbiki had been carried out at the very peak of metropolitan population growth in 1970, and the designated area of UPA was much larger than needed to accommodate a ten-year land supply (Capital Region Comprehensive Planning Institute 1987; Doi 1986; Narai et al. 1991; Sorensen 2002, 232). By the end of the 1970s, when the first reviews were being carried out, it had become clear that the new system was not operating as intended, partly because of the copious amounts of raw land in the UPA areas, only some of which had been used for planned development projects. While the primary goal of senbiki was to prevent sprawl and promote planned development, the first decade had seen an increase in sprawl in the UPA area and continued disorderly development in the UCA area. Local governments were still struggling to catch up with substantial infrastructure backlogs, and many were falling farther behind. The flexible senbiki system emerged in this context. The power to change senbiki zoning could be used to persuade landowners to join a land readjustment project, since land readjustment could achieve planned and serviced urbanization at a low cost.

With the support and encouragement of the MoC, Kanagawa, Saitama, and Chiba—the three suburban prefectures surrounding Tokyo—attempted to use the senbiki system to encourage large-scale planned development. No new national laws were passed, so the details of each prefecture's approach varied (Capital Region Comprehensive Planning Institute 1987; Narai et al. 1991). Saitama prefecture reviewed its long-term strategy through the Saitama Basic City Planning Policy Review (*Saitama-ken Toshi Kihon Keikaku Sakutei Chosa*) of 1983. To encourage more planned developments and achieve infrastructure targets, the prefecture developed two new techniques for modifying the operation of the senbiki system. The first was a way of encouraging land readjustment projects in UCA areas by guaranteeing an upzoning to UPA for land readjustment project areas. Although such a guarantee might be interpreted as a threat to the areas where urbanization was to be prevented, the opportunity to gain public land and infrastructure was considered to trump land protection (Sorensen 2000b). The second method was to allow downzoning of designated UPA areas to UCA if agreement on initiating a land readjustment project could not be reached. The effect of downzoning was potentially substantial because land values were significantly lower in UCA areas.

In 1980, following the first senbiki review of 1977–1979, the Saitama prefectural city planning department selected 10,000 hectares within UPA as designated problem areas (*Mondai Shiteki Chiku*). This land made up 27 percent of the part of the UPA that was not Densely Inhabited Districts (DID) or significantly built up in 1970. These areas were predominantly being used in farming, and there was neither a planned comprehensive development such as land readjustment nor a minimum of urban development. They were thus areas in which future sprawl could be expected if they were not developed comprehensively. The prefecture threatened to downzone to UCA any problem areas in which the larger landowners refused to form a land readjustment organizing committee (*Jumbikai* or *Hokininkai*). It is important to note that the requirement was to start a committee to initiate land readjustment, not to have legally initiated a project, which was expected to take time. This had important consequences later. The job of negotiating landowner consent fell to the local government planning departments, which were responsible for zoning, infrastructure construction, and development projects such as land readjustment (Narai et al. 1991, 701).

Local governments were able to establish land readjustment organizing committees for a total of 7,500 hectares, or 75 percent of the area.

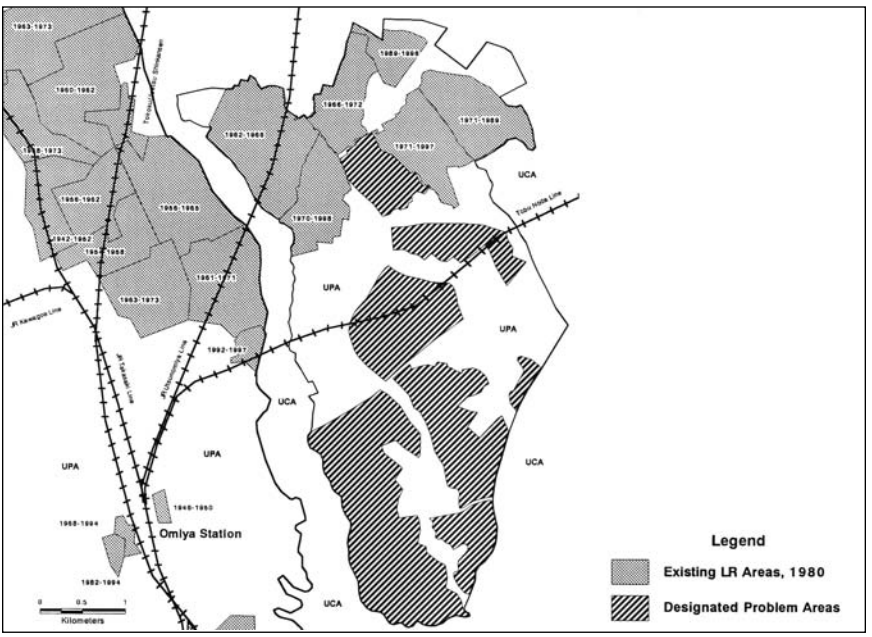
Another 1,550 hectares were acknowledged to have enough development to escape downzoning as existing urban areas (*Kisei Shigai Chiku*), and the remaining 950 hectares were downzoned to UCA areas. As of 1995, a full 10 years after the land readjustment organizing committees were established, land readjustment projects had been legally initiated in 2,800 hectares representing less than 40 percent of the areas that had escaped downzoning by agreeing to initiate such projects.[4]

The practice of flexible senbiki is illustrated by the case of Omiya, a city that in 2001 merged with Urawa (the former capital of Saitama prefecture) and Yono to form Saitama City, the new capital of Saitama prefecture. Long one of the most important cities in Saitama, Omiya is a key rail center; Omiya Station is the first station on both the Tohoku and Joetsu Shinkansen (bullet train) lines north of Tokyo as well as a major junction of the Eastern Japan Railways Takasaki, Saikyo, Utsunomiya, and Kawagoe lines and the private Tobu Noda line. The extensive area of UPA to the north and east of Omiya Station was typical of the overly large UPAs designated in the early 1970s. Although it had experienced development during the 1970s, and although none of the area was designated as DID in the census of 1970 and virtually the whole area was DID in 1980, most land development had been sprawl and lacked services. Much undeveloped land remained, with the built-up area increasing from 24.4 percent of developable land (excluding roads and water) to 40 percent between 1968 and 1979 (Sorensen 2000b, 307). As shown in Figure 4.1, large land readjustment projects were begun in the north in the 1950s and 1960s, but project organizing bogged down in the 1970s, and there were no land readjustment projects in the southern three-quarters of the area. In 1981 the Saitama prefectural government designated thirteen problem areas totalling 876 hectares in Omiya. Of these, seven areas totalling 623 hectares are in the case study area shown in Figure 4.1. These problem areas represented almost all of the UPA area that was not already significantly developed at the time, suggesting the seriousness of the government's commitment to the use of land readjustment to develop the UPA in a planned manner.

The problem areas were divided into smaller land readjustment project organizing areas by the Omiya land readjustment department, and vigorous efforts were made to convince landowners to join land readjustment organizing committees. While the population was rapidly increasing in these areas, the majority of the land was still owned by

[4] Unpublished data from Saitama Prefecture City Planning Department, 1996.

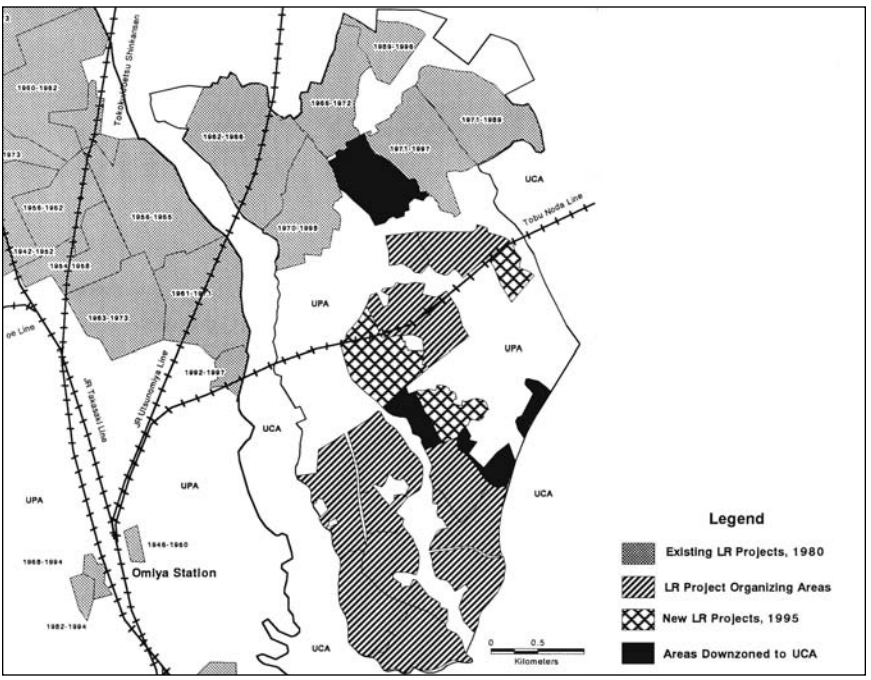
Figure 4.1 Existing Land Readjustment Areas and Designated Problem Areas



long-established farm families (Sorensen 1998), and the most prominent members of the local community were usually the heads of farmland-owning families. Landowner organizing committees were successfully established in 738 hectares, or 84 percent of the total problem areas (Omiya City Project Bureau 1995, 4). In the remaining 138 hectares, or 16 percent of the original problem areas, such committees could not be organized, and these areas were downzoned to UCA in 1988. Four of those downzoned areas are shown in Figure 4.2.

Although landowners in the majority of problem areas had escaped downzoning by agreeing to form land readjustment organizing committees, written consent to the land readjustment projects by a supermajority of at least 66 percent of landowners within each project area was required. This was where the heavy lifting by members of the municipal land readjustment department began. Between 1986 and 1994, Omiya land readjustment project organizers logged a total of 935 explanation meetings (*setsumeikai*) in 13 of the 15 project areas in the case study area to persuade local landowners to consent to land readjustment

Figure 4.2 Flexible Senbiki Results



projects. They averaged 72 such meetings per project area.[5] Such work took thousands of hours and an enormous commitment of municipal resources. Explanation meetings were normally carried out by two or three local government organizers, and the clients could range from a few individuals to several dozen landowners. Some meetings were advertised publicly through circulating community bulletin boards (*kairanban*), some were by invitation, and some were targeted to specific individuals as necessary. According to informants, at times some community members participated in trying to convince their neighbors to consent to projects, but the main responsibility was with municipal officers.

A typical explanation meeting includes a general presentation of the

[5] In the other two project areas, the number of explanation meetings was not recorded. The information comes from the logbooks recording the activities of project organizers up to 1994 in the four case-study cities. These records include details of the land use and land ownership surveys, estimates of the number of land readjustment supporters in each area and the amount of land they owned, the state of the organizing campaign, and whether there were organized opposition movements.

benefits of land readjustment projects, including improved roads and public facilities, a review of the process, a general indication of the project plan, and an explanation of the principles of land contribution and replotting. Project organizers stress the benefits of better roads and sidewalks for children and the elderly and the advantages of public sewer lines and improved storm-water drainage systems. At this stage in Omiya, the policy was to avoid giving precise estimates of the amount of land contribution, whereas in other cities elaborate formulas were established to show the varying contribution rates for the owners of differently sized landholdings, with the contribution rates increasing with size of holding.

Although the contribution rates can vary, in principle everyone must contribute land. This, of course, is the key issue; while all are happy to have better roads and sewers, land is so valuable that a contribution of 20 to 30 percent of a holding represents a significant cost. In theory, the largest landowners are likely to gain the most from the conversion of farmland into serviced urban plots, but in practice it is possible to sever and sell land without basic urban services. Whether provision of infrastructure will increase land values enough to offset the land contribution and the long project implementation, which can take from 5 to 30 or more years, is difficult to calculate.

The economic argument has always been that owners' land values would increase because of urbanization even after land contributions. This argument becomes more difficult to prove if landowners can easily sell housing plots without investing in roads and services; a 33 percent land contribution requires a 50 percent increase in the price per square meter of the remaining land to maintain equal overall value. Conversion of rural to urban land can result in much greater increases than that, but each landowner must determine whether the increase in value is tied to the land readjustment project or can be more readily gained without it. Greatly complicating that calculation has been the collapse of the Japanese land market since 1992, with continuously decreasing average land prices ever since. The assurance that land prices will always increase has been lost. With the imminent prospect of declining total population, the existence of willing land buyers at any price is in question.

By all accounts, organizing land readjustment projects has become steadily more difficult in recent years. Without the promise of rising land prices, arguments for participation in land readjustment projects must stress the public and social benefits of better-designed urban development, better provision of roads and parks, and improved community

facilities. For landowners faced with contributing a major portion of the family land, years of disruption, and the risks inherent in participation in a land readjustment project, the social benefits of land readjustment are a tough sell.

Most of the Omiya landowners judged that the projects were not in their best interests. In the case study area, six new projects totaling 151.2 hectares[6] had been successfully started as of March 2002, as shown in Figure 4.2. During the almost 20 years since the problem areas were designated, land readjustment had successfully begun in only about 24 percent of the original area land readjustment. Of the other nine problem areas, only one represented a real likelihood of starting, and the other eight were listed as uncertain. In six of those areas, land readjustment opposition movements (*hantai undo*) were active, and the projects were considered undecided, meaning in effect that active organizing had been abandoned.

The flexible senbiki policy allowed planners to use the threat of downzoning to persuade landowners to engage in a process of land readjustment project organizing. The threat was not used to make people consent to the projects themselves, however; the only downzoning occurred in 1988, before any of the problem areas had been actually converted into land readjustment projects. Prefectural government officers stated that there was no intention to carry out any more downzoning, as the first round had generated enough controversy and opposition.

Conclusions

A number of conclusions can be drawn from this brief review of land readjustment organizing in the 1980s and 1990s. First, rather than characterizing land readjustment as a process started by neighbors in which the people hold hands with the government to promote mutual benefits, it seems fair to suggest that it is a process that is planned, organized, and implemented by the state and that is actively opposed by a significant segment of landowners. Unless a substantial majority of landowners supports the project (the rule of thumb is 80 percent), local government is seldom willing to go ahead. This is significant because the government

[6] This calculation of the area of the six new land readjustment projects and figures 4.1 and 4.2 are based on unpublished data provided by the Saitama City Hall, Land Readjustment Department, and on the official Saitama City Planning Map published in February 2002.

may legally proceed without landowner consent if the project is initiated as a local government project instead of as an association project. The current understanding, based on bitter experience in the 1960s and 1970s, is that implementation problems can be so severe when local landowners are opposed that it is not worth pressing ahead without significant prior support. Local veto power over undesired projects is thus strong. This is a significant finding. Still, the point remains: land readjustment projects in Japan are not organized by local landowners; they are designated, planned, designed, and implemented by local government planning officers. Organizing land readjustment projects clearly represents a major commitment of time and energy on the part of local governments even in Japan, where the practice of land readjustment is well established.

Second, creating successful land readjustment projects requires strong incentives and/or effective restrictions on development without land readjustment, as well as able and numerous organizers. Even in Japan, with a long history of successful projects, opposition is often intense and effective, and the majority of planned projects are abandoned before they are legally initiated. It may be argued that the flexible senbiki process has always been confrontational, with the prefectural government wielding the heavy threat of downzoning to coerce landowners to cooperate. But it also seems apparent that flexible senbiki merely reflects the current context of land readjustment in which prefectural and municipal governments are strong advocates and landowners are reluctant or hostile.

It should be no surprise that land readjustment organizing is not as tidy as much of the literature suggests and that Japanese landowners are just as determined as those elsewhere to make the most of their land assets and to avoid planners' attempts to make them contribute their land to projects. Even in the fifteen areas that had escaped downzoning through the establishment of a committee of local landowners to promote land readjustment, two-thirds could not be converted to land readjustment projects, and in six of them active opposition movements emerged. Although there are no records of the number of planned land readjustment projects that have been abandoned because of local opposition, the experience of Saitama suggests that the number may be high. The high failure rate seen in this case, where the prefectural government wielded significant inducements to cooperate, suggests that the balance of costs and benefits is not seen as favorable by most landowners.

Third, it seems fair to suggest that the importance of land readjustment in Japanese land development has not resulted from a particularly

Japanese instinct for consensus formation or harmonious community relations. Rather, the reverse seems true: The high failure rate of projects appears to be a result of the reluctance to start land readjustment projects over strong objections by local landowners and the reluctance to proceed without consensus. It also seems clear that local governments are the main driving force behind land readjustment projects; they invest huge resources to convince local landowners to accept projects. That strong backing is a product primarily, it seems, of the lack of other tools to ensure that a basic minimum of urban infrastructure, such as roads and sewers, accompanies land development. In areas that develop without land readjustment projects, haphazard sprawl with no services continues to spread, and the local people will ultimately have to pay for expensive remedial measures to widen roads and build sewers retroactively. Local governments thus have no choice but to invest in efforts to persuade landowners to consent to land readjustment projects. It appears that this is the main reason for the importance of land readjustment in Japan.

It seems clear that the widespread use of land readjustment in Japan is not a product of exceptionally cooperative or pliant landowners. Indeed, given the low success rate of new land readjustment projects and the extent of active opposition movements in the case study area, the real or imagined propensity of Japanese landowners to happily join hands with their neighbors and the government to promote their common benefits through land readjustment is now largely a thing of the past. This may be good news for those hoping to introduce the technique to countries in which landowners are assertive in protecting their private property rights, such as the United States and Thailand. Even in Japan, land readjustment projects are primarily sold through appeals to self-interest rather than to altruism. Successful land readjustment projects can probably be achieved in even the most individualistic nations if the rewards are great enough or the alternatives sufficiently unappealing.

The main reason that land readjustment is still pursued so tirelessly by local and prefectural governments is that they have so few other options in the face of weak land development control regulations, fragmented land ownership patterns, illiquid land markets, and limited amounts of land in public ownership. It seems unrealistic to expect that local governments or other actors will be willing to pursue land readjustment so tenaciously in countries in which simpler methods for achieving adequate urban infrastructure, such as the American system of subdivision control, are available. Similarly, where Japanese landowners do agree to

land readjustment projects, a major incentive is that they are unlikely to gain such basic urban services as sewers, sidewalks, and local parks without them. It thus seems fair to suggest that land readjustment will be an easier sell in developing countries with acute shortages of basic urban infrastructure and few alternative means of providing them than in developed countries where such provision is routine and this key incentive more difficult to apply.

The balance of benefits and costs of land readjustment is likely to be structured differently by differing land development control systems, land markets, economic contexts, and social constructions of the meaning of land ownership and land development. It is reasonable to expect that most landowners will be acutely aware of the balance of economic and noneconomic benefits and costs of participation in land readjustment, so much can be learned about that balance from the study of landowner reactions to land readjustment organizing. Failed land readjustment projects, as in the cases examined here, may be just as instructive as successful ones.

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CHAPTER

5

The Search for Greater Efficiency

Land Readjustment in The Netherlands

BARRIE NEEDHAM

In a particular area, the boundaries of the rights to land ownership or land use may impede the desired use of the area as a whole. This can be in a city area with fragmented landholdings that needs radical urban redevelopment, on the edge of a city with small greenfield sites owned by many different people where a big housing area is planned, or in the countryside where the boundaries and locations of fields hinder efficient farming practices. To realize the desired aims, the structure of landholdings (both ownership and use rights) must be changed. This change is called land readjustment, using a broad interpretation of the term.

Land readjustment can take place in several different ways. The classical way that corresponds with the customary use of the term is when the landowners and users are encouraged voluntarily to exchange property rights among themselves. This can occur in both urban and rural areas. The Netherlands has extensive experience with rural land readjustment in this sense of the term. The term can also be interpreted more widely to include other ways in which the structure of landholdings is changed. One possibility is that a private developer acquires all the separate ownership rights (land assembly) in the market. Another possibility is that a public developer does this by buying the land amicably or, if

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necessary, compulsorily. The Netherlands has experience with these types of land readjustment too. They display some of the same features as the classical type of land readjustment, including a desire to use land efficiently, a businesslike attitude to owning land, the wish to create more valuable landholdings so the rise in value can pay for some of the servicing and infrastructure costs, and trust by private actors in the honesty and competence of government bodies when handling land. Some land readjustment requires special legislation and procedures to empower a public agency to initiate and/or direct the changes. In that case, the legislation and procedures should bring about the desired new use in a socially acceptable way, including the distribution of the financial consequences.

This chapter describes and analyzes four types of land readjustment that are practiced, or propagated, in The Netherlands. The aim is to draw conclusions about the institutional conditions that must be in place for land readjustment to be successful. This information is necessary in order to be able to decide if the experience would be applicable to other countries.

Four Types of Land Readjustment in The Netherlands

All types of Dutch land readjustment described here require cooperation from landowners to a greater or lesser extent. Indeed, this is an ideological reason for using and propagating land readjustment: The rights of the property owners should be respected as much as possible. Other reasons for wanting to use land readjustment are more practical: to achieve change as quickly as possible and with as little expenditure of public money as possible by paying the costs out of the rise in land prices. There is a link between the ideological aim and the practical aims; if the property owners participate voluntarily, the costs and benefits are distributed in a way that is, almost by definition, socially acceptable. The readjustment also proceeds more quickly if land does not have to be compulsorily purchased.

There are four types of land readjustment. The first is the classical form of land readjustment used in rural areas. Landowners, mainly farmers, are invited to exchange property rights among themselves. Here the aim is mainly land assembly, making the parcels suitable for more efficient agriculture. The infrastructure is also renewed, but usually not in a self-financing manner. There is a long and widespread practice of

this in The Netherlands. It is often called land consolidation or land reallocation in English.

The second form is an attempt to apply the procedures of classical rural land readjustment to the redevelopment of an existing urban area. The aim is more coordination in the redevelopment and quicker and cheaper procedures because compulsory purchase does not have to be used. The single experiment with this form of land readjustment was not a great success. Recently, there has been renewed interest in this approach.

The third form of land readjustment involves a public developer (in this case, a municipality) that buys all the land to be developed, readjusts the parcels into forms suitable for the desired development, and sells those parcels. Under certain circumstances, compulsory purchase can be used if the landowners do not cooperate, but this is rarely necessary. The aim is both land assembly and the self-financing of infrastructure: The increase in land value caused by the readjustment is sufficient to pay for the new infrastructure. This is widely practiced in The Netherlands. It is different from the other three types in that the landowners before the land readjustment are not the same as the landowners after. It is not the same as land banking because the municipality buys the land at the last possible moment. The ownerships are assembled for immediate reuse rather than deposited for later use.

The fourth form of land readjustment is a recent—and spontaneous—variant of the third. Several housing developers buy land in a location designated for large-scale development. Together, they ask the municipality to act as a pooling agent. The developers want to put their land into this pool so that the location can be developed more efficiently as a whole. When the building land has been serviced, the developers take land out of the pool proportionately to the amount they contributed. As in the third type of land readjustment, the aim is for the income from the land disposals to pay for the land acquisition and the improvements to the land.

All these types of land readjustment require cooperation from the landowners, actively in the first, second, and fourth types, and passively in the third type. The third type of land readjustment, in which the municipality buys land to transform it into a development site, works only if the landowners are prepared to sell their land for a reasonable price, rather than demanding the highest possible price or refusing to sell so that the municipality has to purchase it compulsorily. The other three types require active cooperation in which all landowners put their

property rights into a pool; they have the right to take land out of the pool after boundaries have been readjusted, and the new allocations are proportional to their contributions. For voluntary participation, it is necessary for most of the landowners to benefit from the readjustment. But a few might not benefit, and holdouts might think they can benefit more by delaying participation. So land readjustment can seldom be completely voluntary, and there usually have to be compulsory purchase powers or the like. Nevertheless, the aim is to produce a net gain for as many of the participants as possible.

A Utilitarian Attitude to Land Ownership

Why are Dutch landowners generally prepared to voluntarily cooperate in land readjustment? It is a cliché that "God made the world, but the Dutch made Holland." It is misleading also, for it suggests that the Dutch made their country by claiming land from water. Actually, the land area of the country is now smaller than in Roman times (Van der Ven 1993, 34). What the Dutch have done is to make their land more usable: It is drier, firmer, and safer. Where the land was low-lying, it has been drained by digging ditches and pumping water out of the ditches into rivers.[1] The peat bogs in the higher parts of the country have been drained, and the peat was removed for fuel, leaving sandy farmland behind.

Those activities required much cooperation and a practical attitude to property rights. Suppose, for example, an area of several hundred hectares is so low-lying that the land can hardly be used. If this area is drained by digging a canal, the result will be land with a much higher use value. Few rich landowners could afford to do this, and until the nineteenth century no limited liability companies were of sufficient size. (When the Haarlemmermeer was drained between 1848 and 1852, private profit-seeking companies were involved for the first time.) Starting as early as the ninth century, the local inhabitants worked together. They set up water boards and invested them with public powers (police powers), and these boards carried out the work, selling or leasing the resulting agricultural holdings (Van der Ven 1993).

[1] Ironically, many of the measures taken to make the land drier have caused the land to sink (peat shrinkage and soil compaction; see Van der Ven 1993, 196), making it vulnerable to flooding and requiring higher and stronger dikes.

This had results not only for the Dutch landscape but also for Dutch attitudes about land. Land can be made usable, but only by joint efforts, and no one can exercise property rights without respect for the water boards. The result is that individual rights in land are regarded as a good that can be traded without much emotion (see Teimant 1988). This is the cultural background that makes it relatively easy for Dutch farmers to buy, sell, and exchange their land in a utilitarian way. The practice spread into the buying and selling of land for urban development, so much so that private developers working in a particular location sometimes take the initiative to pool their land ownership (type 4 land readjustment).

However, things are changing. Farmers in areas designated for large-scale land readjustment are becoming less willing to be involved, partly for the practical reason that the gains to individual landowners have become small. Improvements that could be most easily and cheaply made have now been achieved. The active land policy, whereby municipalities buy the land amicably for a large-scale development, is becoming less frequent; landowners think they can make more money by selling to developers directly. Developers are discovering that it can be more advantageous to work together directly rather than to work indirectly through the municipality. The reasons for these changes are investigated in the last section of this chapter to understand better the relationship between institutions and the applicability (or transferability) of land readjustment.

Agricultural Land Readjustment

The first legislation to facilitate the creation of compact holdings (*Ruilverkavelingswet*) was passed in 1924.[2] It was not widely applied, for a large majority of landowners had to approve a project, so some of them could relatively easily block an initiative; also, most of the costs had to be borne by the landowners. These issues were addressed in a revision of the law in 1938. After World War II, the tempo of readjustment increased greatly: Between 1946 and 1959, an average of 22,000 hectares was readjusted each year, compared with 23,700 hectares for the whole period between 1924 and 1945. The main purpose of readjustment after the Second World War was to improve agricultural

[2] As much as possible, this section uses the English translations of Dutch technical and official terms used by the Dutch Government Service for Land and Water Management.

productivity. Wages in rural areas needed to be raised, and food production had to be increased after the hunger of the war years. Not only were land parcels often small and fragmented, but the level of groundwater was high also, making it difficult to use agricultural machinery, and access to the parcels was poor.

In 1954 the law was changed to improve the procedures. A maximum of 5 percent of the land could now be set aside for uses other than agriculture, and a landscape plan had to be drawn up, but agricultural interests still dominated. The revision gave farmers who leased land the same rights held by those who owned it, a rule that is still in force. In other words, an owner who is the farmer pools his ownership rights, an agricultural tenant pools his leasehold rights, and each can draw rights—freehold and leasehold respectively—out of the pool after readjustment. (It follows that the landlord who granted the lease cannot exercise freehold rights during the land readjustment.) This change, together with higher subsidies from the national government, raised the tempo of land readjustment again, to an average of 50,000 hectares a year between 1960 and 1969. The aim was to raise agricultural productivity, and the government was prepared to subsidize land readjustment heavily. At this time, The Netherlands became subject to the Common Agricultural Policy of the European Community: Farmers faced fierce competition within Europe and wanted to do everything that would increase their efficiency.

The Dutch agricultural landscape was changing very rapidly; about 2.5 percent of agricultural land was being readjusted each year. Criticism began to mount. The cost of improving agricultural productivity was higher than the resulting increase in the value of the agricultural land, and there were other costs as well. Because land readjustment was costing the taxpayer too much,[3] the area of land being tackled was reduced in the 1970s and 1980s. Another criticism was that the landscape and the natural ecology were being damaged. Land readjustment had become a juggernaut rolling over the countryside; it was not coordinated with other public policies for land use, and it was destroying much that was valuable. It was serving the interests of more efficient agriculture at the expense of the general public.

A new Act of 1985 (*Landinrichtingswet*) was passed to solve some of

[3] In the 1990s, the net costs of land readjustment, most of which were paid by the national government, were estimated to be equivalent to 0.05 percent of the national income (LNV 1993, 1).

these problems. Nature conservationists were included on the local executive committees. Land readjustment projects had to be connected to provincial land use plans. And the law distinguished between different kinds of land readjustment projects, making land readjustment an instrument not only for achieving agricultural aims but also for other purposes in rural areas. The economic climate was changing as well: Because there were now huge food surpluses in Europe, production needed to be reduced rather than increased.

As the employment in agriculture continued to decline, living conditions in the countryside were threatened, and rural renewal became a policy issue. Other rural issues also came to the political forefront: the quality of the landscape; the ground, water, air, and noise pollution of the environment; biodiversity; the sinking water table that was causing the soil to dry out; and groundwater pollution. Land readjustment has come to be seen as an instrument for tackling all these countryside issues. With a different structure of landholdings, land can be drained differently, habitats can be better protected, and so on. For agriculture, the aim is still to improve the land ownership structure, by relocating farms if necessary, and to improve access to the land parcels; but the aim is also to improve the quality and quantity of water. For nature conservancy, the aim is to help realize the main ecological structure of The Netherlands, and water management is part of this, too. For outdoor recreation, it is a question of opening footpaths and cycle tracks in a multifunctional countryside. The quality of the landscape is being improved, based on geomorphology and historical cultivation patterns. The environmental quality of the water, ground, and air is to be improved. More woodlands and hedgerows are to be planted and the conditions for forestry improved. The quality of life in rural areas is to be enhanced by improving the living and working conditions of those in agriculture.

Land readjustment has had a huge effect on the Dutch countryside. "More than two thirds of the total agricultural land of The Netherlands has been consolidated, reallocated or readjusted and improved or reclaimed during the second half of the twentieth century" (Brinkman 1998).[4]

[4] Between the introduction of the first Readjustment Act (*Ruilverkavelingswet*) in 1924 and the end of 1982, 790,000 hectares had been readjusted; work was in progress on 560,000 hectares, was in preparation on another 360,000 hectares, and had been requested for yet another 500,000 hectares. The total is higher than the area of all agricultural land at that time because some land has undergone the process not once but twice and, in a few cases, three times (Lambert 1985, 313).

To achieve the variety of aims for rural land, the law makes a variety of projects possible. The two main forms are land redevelopment (*herinrichting*) for areas that will have important functions besides agriculture, such as nature conservancy and recreation; and land consolidation (*ruilverkaveling*) for areas that will retain a predominantly agricultural function. This difference is reflected in the procedures. Land consolidation is intended primarily for farmers, so the decision to go ahead is made by the landowners and lessees; also, it is not possible to acquire land by compulsory purchase. With land redevelopment, the provincial government makes the decision to go ahead, and compulsory purchase can be applied. However, the importance of the distinction between agricultural purposes and mixed purposes has diminished, and a new law now being prepared will introduce a single procedure for all areas. The final version of this law, the WILG (*wet inrichting landelijk gebied*), has not yet gone before Parliament for approval.

There is an important additional form of land readjustment, namely, exchanging parcels completely voluntarily, without infrastructural works and without land being taken out of agriculture for other purposes (*vrijwillige kavelruil*). There are legal regulations to facilitate this kind of land readjustment; because it is totally voluntary and is effected more quickly, many landowners prefer it to the government-dominated procedures for land redevelopment and consolidation. It is growing in popularity and will be retained in the proposed new legislation. Van der Stoep et al. (2003) analyze a voluntary exchange that was prompted because two projects that were not voluntary had been vetoed by the involved farmers.

The legal, administrative, and procedural details of land readjustment will be changed by the new legislation. The principle remains the same, however: The owners of property rights contribute those rights to a pool. Some land might be taken out of the pool for roads and other shared uses. The boundaries of the remaining land are readjusted, and the new parcels are allocated to those who contributed to the pool, in proportion to the value of their contributions. In most cases (except in voluntary exchanges), the increase in land values is much lower than the costs of administration and new infrastructure, so the land readjustment is usually heavily subsidized. The pool itself is virtual. The original landowners and leaseholders do not transfer their rights to a holding body, which transfers those rights to others after the readjustment. Rather, all rights are essentially frozen at the beginning of the procedure.

Later—and it can be many years later—at one and the same moment, the existing rights are unfrozen, new rights are created, and the new rights are allocated. This curious legal construction is not without critics (De Haan 1988, 144). It works only because those who contribute their rights trust the public body responsible for the reallocation.

How voluntary is the involvement of the owners of property rights? Originally, when the aim was as much voluntary exchange as possible, a project could be approved only if both a majority of the landowners voted for it and if those voting for it represented a majority of the land area. (This double-majority voting was designed to protect the rights of the smaller landowners.) In 1938 this was changed to a single-majority system; if either a majority of the landowners or landowners representing a majority of the land area approved of the proposal, the land readjustment could go ahead. Today, if the land readjustment is primarily for agricultural purposes (*ruilverkaveling*), the owners of the property rights have the right to veto the plan drawn up by the province, and they have been using that veto right with increasing frequency. When the land readjustment includes purposes other than agricultural ones (*herinrichting*), the owners and tenants have fewer powers, although they still have the right to appeal certain decisions, and the appeal can go up to the highest court of appeal, the Council of State. Although voluntary involvement has been greatly reduced, the principle of land pooling is still maintained, and this guarantees the rights of the first landowners and tenants. Those rights are protected in another way, too. A limited amount of land can be taken without compensation into public use. This limit is between 3 and 5 percent (depending on the circumstances) of the total readjustment area. Clearly, in the growing number of cases of *vrijwillige kavelruil* (voluntary land readjustment), the principle of voluntary exchange is still paramount.

Voluntary Land Readjustment in Urban Areas

The success of land readjustment in rural areas has led to the suggestion to apply it in urban areas, too, to redevelop large areas in which many different people own many different rights in the land and buildings. After all, that form of land readjustment is practiced successfully in other countries. In urban situations, a single private developer cannot be

expected to amalgamate all the holdings.[5] The alternative of having a public authority amalgamate the land, using compulsory purchase when necessary, takes a long time and costs taxpayers huge amounts of money. Can such urban land readjustment be done voluntarily, with the owners of the rights pooling those rights and, after renewal, receiving new rights in accordance with what they contributed?

The technical possibilities of such readjustment were demonstrated in the center of Rotterdam, although the process was anything but voluntary. On the night of 14 May 1940, the city center was destroyed by bombing. The whole area of 258 hectares, of which 158 hectares were built up, was devastated, and about 11,000 buildings were demolished. When this area was rebuilt after the war, the medieval division of building plots was totally replaced by means of a compulsory land readjustment (Van Schilfgaarde 1987).

Partly because of this experience, urban land readjustment has been researched sporadically. In particular, what would the best rules and procedures be? (For a short history, see De Wolff 2002 and 2004.) In 1983 De Haan (1984) worked out a possible form. An experiment was carried out on one street (Folkingerstraat) in Groningen. In the absence of new legislation, the readjustment was small scale and consisted largely of incidental exchanges. An evaluation described the results as encouraging (Heidemij 1983). There the idea has rested until recently. A policy paper produced by the cabinet in 2001 (Nota Grondbeleid 2001, 73) raised the subject as a possible way of stimulating the redevelopment of urban areas and distributing the costs fairly. Research was commissioned, and some results have been published (De Wolff 2002). The main conclusions are that a legal instrument for urban land readjustment would be a useful complement to the existing instruments and that it should facilitate voluntary cooperation or oblige property owners to cooperate, but not be a way to implement a municipal plan.

It is clear that land readjustment is vastly more complicated in urban areas than in rural areas. There are many more owners of property rights per hectare, and land is more valuable. For these reasons, there is no legislation for, or any experience with, urban land readjustment other than that described above.

[5] See, however, Marriott's (1967, chapter 11) recounting of how a single developer secretly acquired the many plots of land used in the development of the Euston Centre in London.

Urban Development and Redevelopment: The Municipality Takes the Initiative

Building on greenfield sites is usually much cheaper on a large scale than on a small scale. In large parts of The Netherlands, the land has to be drained to be made suitable for building. This would be prohibitively expensive for a small development. So housing schemes are usually carried out for hundreds of dwellings at a time, and industrial estates of many hectares are developed. On the site for greenfield development, which usually consists of many parcels in many ownerships, those parcels must be assembled.

The common practice is for the municipality to assemble all the land and treat it as a whole. The roads and other infrastructure services are put in, the public open spaces are laid out, and the remaining land is divided into building plots. These plots are then disposed of to those who want to build in accordance with the land use plan. As the land developer, the municipality has the costs of land acquisition, infrastructure and other services, and interest charges, and it has income from disposing of the building plots. This is routine work for municipalities; it is not contentious politically, and it is largely free from corruption. Providing land for building has been compared with providing drinking water, gas, or electricity (Needham, Koenders, and Kruijt 1993, 82).

Just as rural land readjustment has determined the form of the Dutch countryside, so has this kind of urban development process determined the form of almost everything that has been built in the last 50 years. Since the end of World War II, the majority of all new development has taken place on serviced land supplied by the municipality. This is the case for greenfield development and for redevelopment on urban sites where the infrastructure had to be renewed. It is the case for housing development, and also for industrial estates, office parks, and harbors. Only in the last few years have other development processes become common.

Clearly, financing the provision of infrastructure out of the increase in the price of land for which the infrastructure has been provided is convenient (Needham, Koenders, and Kruijt provide average values for costs and prices [1993, chapter 4]). It is also widely regarded as being socially just: The infrastructure is provided so that the land can be developed, and the price of the land increases because it is serviced by the infrastructure. The landowner who benefits from the infrastructure

should contribute toward the costs. How this works and how it can go wrong depend on the details of the process. The most important financial variables are

1. acquisition costs;
2. costs of servicing and infrastructure;
3. interest charges; and
4. income from land disposal.

If the land developer is a municipality with the financial goal of not losing money on the land development,

- it can choose to dispose of some of the land (e.g., for social housing) at less than market values (variable 4);
- it can choose the mix of land uses and hence the total income (variable 4);
- it can choose how intensively or extensively to build the site (variable 4);
- it can choose to what standard the land is to be serviced (variable 2); and
- it can choose how quickly to develop the site (variable 3).

The result is the amount of money available for buying the land (variable 1). As long as this amount is sufficient to persuade the owner (usually a farmer) to sell the land amicably, development can take place.

Over the course of many years, the situation stabilized, and municipalities did not try to make a profit on land development; land for social housing was provided cheaply; there was a high proportion of social housing in the development scheme; servicing met a high standard; and farmers willingly sold their land. The value of land for urban development was no more than about two times its value for agriculture. This was the case because municipalities put together development schemes that had many low-paying uses, and land servicing costs are usually very high. This situation was maintained by the law on compulsory purchase (Needham 1992). If a landowner refused to sell and a compulsory purchase order was approved, the owner received compensation equal to the average value of land in the whole development project, irrespective of whether the plot would be used for housing, roads, a park, offices, or something else. The value of this compensation was around the value for amicable purchase. The municipality, when trying to buy land amicably, offered to pay that average value. So the offer was usually accepted; the owner received the compulsory purchase compensation without having

to wait for the legal outcome of the compulsory purchase. If the municipality wanted to develop a site in such a way that the value would decrease (e.g., by choosing a site with high drainage costs, including a high proportion of low-paying uses, or servicing the land in an expensive way), it could sometimes get a subsidy from the national government (see Needham, Koenders, and Kruijt 1993, chapter 6.1).

However, this sort of land readjustment has proved to have vulnerabilities. The municipality could acquire the land amicably because the owner was willing to sell it for a low price. No legislation gives the municipality the exclusive right to acquire development land. But no commercial developer wanted to undertake land development (as distinct from building development) because the profits were too low to offset the risks. Then two external changes caused the profits from land development to increase: The mix of housing to be built included a lower proportion of social housing, and the price of market housing rose rapidly. Commercial developers became interested. They were prepared to offer farmers far more for their land than the municipality would, and they would still make a profit. The situation started to change around 1994, and now it is much less common for municipalities to carry out land development (Needham 1997).[6]

Urban Development: Developers Take the Initiative

When it was discovered that commercial developers had become involved in land development, the question arose of where this would lead. Would development in The Netherlands follow the practice of most other countries, with developers acquiring unserviced land and developing it in accordance with the land use plan, while the municipality's role would be limited to making the plan and testing applications for building and planning permits? That model is sometimes followed, but more frequently commercial developers who have bought unserviced land want to readjust their land ownership and they request the cooperation of the municipality (see Korthals Altes and Groetelaars 2000).

This voluntary land readjustment at the initiative of private landowners

[6] There is an interesting connection between this change and the readjustment of agricultural land described earlier. That latter readjustment was meant to tackle fragmentation of land ownership and has been so successful that the land belonging to one farmer is usually now in one unit. This makes it easier for a commercial developer to acquire land to build on. The situation is different in Germany, where agricultural land is still fragmented and where, as a result, land readjustment with the help of a public authority is often necessary for a greenfield development of any size (see Verhage 2002, chapter 2).

takes two forms. In one form, the developers sell their land to the municipality, which acts as the pooling agent. In the other form, the developers and the municipality set up a private limited liability company to which the developers sell their land, acquiring shares in the company, and this company is the pooling agent. The pooling agent puts in the services and infrastructure and then disposes of the serviced building land to the developers, who had put their land into the pool, and possibly also to the municipality. The developers have agreed to the amount, the price, and possibly the location of the building land before they sell their land to the pooling agent. All agreements are set down in a contract (*exploitatieovereenkomst*), which usually includes clauses regulating how the parties will adapt to unexpected changes in costs and selling prices. (For two case studies, see Verhage and Needham 2003.)

The most interesting question is why commercial developers participate in voluntary land readjustment. It is certainly not in order to make a profit on the land transaction itself, for often the pooling agent pays less than the developers paid to buy the land. One reason is that an individual developer expects to work more efficiently with sites that have been readjusted than would be possible with the sites purchased initially, since the land use plan usually proposes new roads, water courses, parks, and the like. Another reason is that the developer knows that the proposed infrastructure will be more quickly (and possibly more cheaply) provided and that the costs will be fairly divided when the land is pooled. A third reason is that the developer wants to start building so as to be able to start selling, and this can often be done more quickly when the land is pooled. These are commercial decisions based on estimates of interest charges, forecasts of changes in costs and prices, risks, transaction costs, and more. The developer expects to build in a more predictable way and with fewer financial risks by cooperating with the municipality and other developers active on the same location and by letting the municipality coordinate all the activities.

This is a particularly interesting form of voluntary land readjustment. However, there are legal objections to it because it is a kind of cartel between the municipality and a few developers. The municipality is refusing to cooperate with any developers other than those few with whom it has entered into an agreement. And the municipality prefers to work with developers with whom it has built a working relationship over the years, for then agreements can be based on trust (Needham 2003a; Needham and De Kam 2004).

Conclusions: The Necessary Institutional Conditions

What conclusions can be drawn about the institutional conditions necessary for the success of land readjustment? Agricultural land readjustment (the first form) is most institutionalized in The Netherlands, and the Dutch have many years of experience in advising other countries about land readjustment through the Government Service for Land and Water Management (DLG Service for Land and Water Management 2001). Based on this experience, the following institutional conditions are necessary for agricultural land readjustment (Brinkman 1998, 7):

- A strong and sustained trust in the government and its various institutions. That is, that the government is a trustworthy agent and will act as it has promised. "Farmers were confident that after the decade-long period in which they did not know which parcels of land would eventually be allocated to them, they would in fact receive back land of a quality and amount equivalent to what they contributed, in improved condition and more easily accessible."[7]
- A broad-based, well-informed platform of interest and support among the people (in particular the landowners concerned) for the changes being proposed and implemented.
- A high proportion of government subsidy to facilitate the process. This is more necessary if the aims of land readjustment are extended to include nature and landscape improvement.
- The work of national technical institutions with long memories.
- A strong and broad consensus on a vision of the future.

Brinkman also points out the possible dangers inherent in the Dutch model, namely that the government is involved in all stages of the process. "In relatively authoritarian situations or where the farming community has little political power, there is a real risk that the people affected and involved might not be able to exert enough influence on the process to achieve an outcome in accordance with their views" (Brinkman 1998, 8). This situation is found in Japan, as discussed in chapter 4 of this book.

Do the same conclusions apply to urban land readjustment in The

[7] Brinkman continues: "In cases where there would be less confidence in the dependability and competence of government and its institutions, an initial step might be a government-facilitated, voluntary exchange and consolidation of land among a small number of farmers, in locations where land fragmentation is one of the main problems facing them. This can be done much faster than a fully fledged land consolidation project, and the rights to each specific land parcel would remain clear throughout the period."

Netherlands? Are other institutional conditions necessary for its success? The use of land readjustment for new urban development demonstrates the importance of capable and trusted public authorities. If the owners of property rights and the public in general did not trust the officials, municipalities would have been unable to carry out an active land policy (form 3) involving huge amounts of land and money and with the potential for corruption for so many decades. That is emphasized by the appearance of land readjustment form 4; it is significant that developers want to work closely with the municipality and want that body to serve as a pooling agent.

Another necessary institutional condition is the lack of a better method of realizing the aims of land readjustment. This is illustrated by the financing of infrastructural works in The Netherlands. Regulations requiring those who benefit from infrastructural works to pay for them are effective only when the municipality assembles the plots of land, provides the infrastructure, and disposes of the building sites (land readjustment form 3). Land readjustment persists partly because there is no better way of regulating the finances. And even now, developers often still sell development land they acquired back to the municipality or to a public-private company to ensure quick and equitable financing of the infrastructure. Public land leasing in The Netherlands (Needham 2003b) provides another illustration. If there are fragmented landholdings in an urban area, the municipality can use land readjustment to amalgamate them. But if the municipality is the ground landlord, and the ground leases, rather than the freehold rights, are fragmented, amalgamation can be relatively easy.[8] This makes urban land readjustment less necessary and is perhaps a reason that it has not been introduced in The Netherlands, where much land in the bigger cities is owned by municipalities and let on long building leases.

Finally, the businesslike attitude to property rights and the lack of a strong emotional connection to land or buildings are important. In The Netherlands, the emotional attachment to a parcel of land is weak; the parcel will be sold if the price is right. It must be emphasized that the landowners are not philanthropic, and they do safeguard their own interests. Proposals for government-dominated land readjustment in agricultural areas (form 1) are meeting more and more opposition from farmers who think that the advantages to them (the possibility of more

[8] How easy this is in practice depends on the terms of the ground lease, including the conditions under which the lease can be prematurely terminated.

efficient agriculture) are too small. And the change from form 3 urban land readjustment to form 4 urban land readjustment is primarily the result of commercial developers' realization that changes in land and property prices make it more advantageous to buy unserviced land from the farmers than to buy serviced land from the municipality. The failure so far of form 2 urban land readjustment can also best be explained by the small net economic advantages to the owners of the property rights.

This last point shows that not only institutional factors but also economic factors affect the success or failure of land readjustment. Landowners' financial gains from land readjustment must be greater than if they did not take part. The gains depend on the economic climate and on the size and business capabilities of the parties involved. Only in the last 10 or so years have commercial developers in The Netherlands been big enough to buy, stock, and service large areas of building land; the bigger the farms, the less they need to cooperate to readjust land boundaries.

Clearly, the Dutch have much experience with land readjustment of different types, on a large scale, and over many years. Changes in the institutional conditions have made different types of land readjustment more or less successful. There are two indispensable conditions: widespread trust in the competence, fairness, and honesty of the public officials, and a utilitarian attitude to land and land ownership. The second condition means that landowners will not act on emotional grounds and will take into account not only the value of their land but also the transaction costs of exchanging land and land rights. If there is trust between actors in the market, forms of exchange other than buying at the lowest cost and selling at the highest price will be considered (Williamson 1985).

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PART

IV

Experiments

CHAPTER

6

New Experiments to Solve Urban Renewal Problems in China

LING HIN LI AND XIN LI

The renewal of old areas is a major problem in urban land development, in part because of the unclear delineation and measure of property rights. In addition, individual property owners do not welcome resettlement, even when they receive adequate compensation. An effective redevelopment scheme requires the full and willing cooperation of the owners. In this respect, the land readjustment model provides an attractive alternative. Sorensen describes land readjustment as "a process whereby landowners pool ownership of scattered and irregular plots of agricultural land, build roads and main infrastructure and then subdivide the land into urban plots" (1999, 2333). Land readjustment has been widely adopted in Germany, Japan, and Taiwan as well as in some European countries (Sorensen 1999, 2334). However, because the mechanism needs the collaboration of all landowners in the district, it can be disastrous if the number of property owners is too large. This chapter looks at two relatively successful urban applications of land readjustment that have been applied in the process of urban redevelopment in China. To illustrate that land readjustment can be applied successfully in different sociourban settings, the chapter examines land readjustment in Hong Kong, a highly developed capitalist city, and in Pujiang, a small city in the affluent Zhejiang Province under the reforming socialist system.

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Hong Kong: A Vertical Application of Land Readjustment

Conventionally, land readjustment schemes are applied in rural or suburban districts where a whole area is "realigned" (reparceled) according to land readjustment principles. In this horizontal readjustment, property owners are transferred from one location to another within the district during the redevelopment, and the whole district is reconfigured horizontally. In such cases, it may seem easier to apply land readjustment in rural or suburban areas where the number of landowners is relatively small. In high-density cities where the number of property owners is large, land readjustment schemes seem to be less useful. This is because more time will be needed to negotiate with all the landowners to develop an acceptable package. However, the case study in Hong Kong shows that a vertical application of land readjustment—reconfiguration of a single site—is workable, given certain conditions.

The present land tenure system in Hong Kong is closely related to the city's history. The leasehold system, which allows the absolute perpetual title of land to be vested in the government as the owner of all land, was used as a method of disposing of government land soon after Hong Kong became a British colony in 1842. Except for the site of St. John Cathedral, all land in Hong Kong is held under formal Crown leases (now called government leases) for a term of years absolute. When developers build multistory buildings, they must subdivide the leasehold rights into undivided shares to which the right of ownership is attached (Kent, Malcom, and Walters 2002). This is the so-called tenancy-in-common system. A tenancy (in the legal sense, not in the context of landlords and tenants) in undivided shares means that land is held by all the owners in common, rather than by any single owner. The apartment units share the same building plot in the form of undivided shares over the same site. Although the site is held under long-term leasehold from the government, which is the ultimate owner, the owners are commonly assumed to own their apartment units in close to freehold status by paying the government a revised land rent as a form of renewal fee for extending the land lease (see Nissim 1998).

Annex III of the Sino-British Joint Declaration or Section 2 Articles 120–123 of the Basic Law has governed land leases in Hong Kong since 30 June 1997. All leases of land that extend beyond 30 June 1997 and that were granted, decided on, or renewed before the establishment of the Hong Kong Special Administration Region (SAR) are recognized and protected. Almost all new leases granted after July 1997 are 50-year

leases with yearly payment of land rent equivalent to 3 percent of the ratable value of the property. All ratable values are reassessed annually. The only exceptions are leases for special purposes, such as petrol filling stations and public utilities and other short-term leases.

Hong Kong is a small but compact city. In 2005 more than six million people lived in a total area of 1,092 square kilometers, of which less than 16 percent was suitable for urban development. With this large population and a constant flow of immigrants from mainland China,[1] urban renewal is not an easy task. People in Hong Kong are accustomed to sharing property rights over common areas in their neighborhoods because more than 90 percent of households live in high-rise buildings. To redevelop old urban residential buildings requires the government and private developers to assemble land, which is a difficult and time-consuming process.

Demand for property assets, especially housing property, is high in Hong Kong. As one reflection of this high housing demand, real estate–related corporations accounted for more than 30 percent of Hong Kong's stock market capitalization value in 2000 (Huang 2001). Ten of the top twenty public companies listed on the Hong Kong Stock Exchange were real estate or real estate–related companies. Before 1995, more than one-third of total government income was related to real estate; this included the income from land sales, premiums charged for change of land use (via planning application), property taxes and rates, stamp duties for property transactions, profit tax from developers, and property investment by the government (Walker, Chau, and Lai 1995). Since developers are mainly concerned with quick returns, collaboration with existing owners in the old building is usually unimaginable in a booming market. Most individual owners tend to ask for more than a fair share, knowing that developers are eager to assemble the site. Hence, developers are often held hostage by these individual owners, with two consequences. First, the developers may have to pay astronomical prices for the last few units on the site. Second, they may have to give up the site assembly process and rework the redevelopment scheme to exclude these properties (see figure 6.1). This exacerbates the less-than-cordial relationships between developers and individual owners.

This competitive situation became more acute after 1998, when Hong

[1] Hong Kong allows 150 legal immigrants to come to Hong Kong from mainland China each day. At this rate, the population stands to increase by 54,750 each year, even though Hong Kong has the lowest birth rate in the world.

Figure 6.1 Example of a Typical Site Assembly Problem in Hong Kong

The white building in the center was left out of the redevelopment scheme because the individual owners asked for more than the developer could afford to give. The new scheme had to "envelop" this tiny building on the site.

Kong property prices started to plummet by more than 20 percent a year.[2] Developers chose the easier option of outright purchase of property rights from individual owners who were more realistic in accepting their offers. Any scheme that would drag on for years became unworkable because property prices might continue to decrease with the shrinking economy. Land readjustment involves long initial arrangement and planning. However, a developer, Hongkong Land Property Limited, took a chance and initiated a land readjustment project in one of the oldest upscale residential districts of Hong Kong.

The Lai Sing Court Redevelopment

Hongkong Land (HKL) is a leading property investment group in Hong Kong with a traditional British background. The holding company is the Jardine Group, the oldest British group in Hong Kong. HKL has a unique investment portfolio of mainly office and retail space in Hong Kong's central business district. Because HKL had severe losses during the 1980s, it had almost no property development projects in the 1990s, and the company was regarded more as a landlord than as a property developer. But its corporate policy started to change in the late 1990s.

The trigger was the 1999 enactment of the *Land Ordinance (Compulsory Sale for Redevelopment Ordinance*, hereafter the Ordinance). The Ordinance aims at streamlining the procedure for site assembly for land redevelopment. It enables persons (other than mortgagees) who own a specified majority[3] of the undivided shares in a lot to apply to the Hong Kong Lands Tribunal for ordering the transfers of remaining undivided shares for the purpose of redevelopment. It also enables the Lands Tribunal to make such an order if specified criteria are met:

1. The redevelopment of the lot is justified (whether or not the majority owner proposes to undertake or is capable of undertaking the redevelopment):
   (a) due to the age or state of repair of the existing development on the lot; or

[2] General housing price indices of various types of private housing may be obtained from the Rating and Valuation Department at http://www.rvd.gov.hk/en/home/index.htm.

[3] Currently 90 percent, but there have been discussions to lower the threshold to 80 percent.

(b) on one or more grounds, if any, specified in regulations. (Basically, a developer needs to prove that the building is in such disrepair that a complete redevelopment is the only reasonable option to improve the situation.)

2. The majority owner has taken reasonable steps to acquire all the undivided shares in the lot (including, in the case of a minority owner whose whereabouts are known, negotiating for the purchase of shares owned by the minority owner on terms that are fair and reasonable).

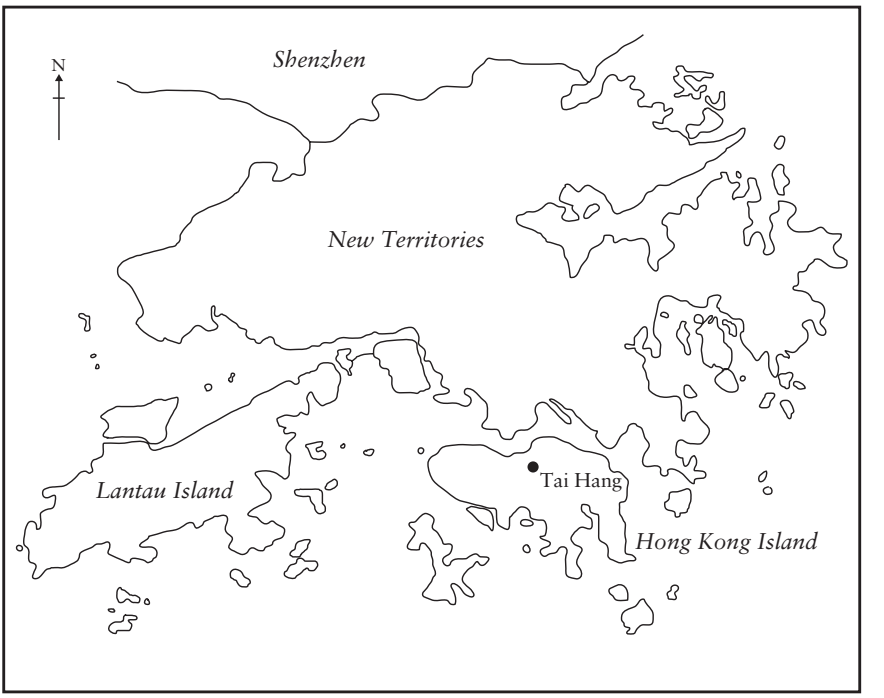
On satisfaction of these two conditions, the developer may force a compulsory auction of the whole property, irrespective of the wishes of the opposing owners in the building. However, other developers may also bid in the auction. Nevertheless, the Ordinance allows for a higher degree of flexibility for private developers to carry out conventional types of urban renewal projects. In this case study, although HKL eventually did rely on the Ordinance, the company did not opt for a conventional redevelopment scheme, such as an outright buyout of property rights from individual owners.

Lai Sing Court was a more than 30-year-old two-building development in Tai Hang, a traditional high-class residential area on Hong Kong Island (see figure 6.2). Since Tai Hang is a maturing district with buildings of similar ages, the redevelopment potential attracts developers. HKL also saw an opportunity to start redevelopment projects in Hong Kong, since residential projects are relatively less volatile than other sectors, such as retail. Through a business connection, Lai Sing Court (LSC) was mentioned to Mr. Robert Wong, the HKL executive director in charge of residential property development.

A number of conditions had to be met for HKL to give serious considerations to the redevelopment project. The first involved the number of owners. LSC had 176 owners. Based on the Ordinance, if HKL could purchase 159 properties (90 percent), redevelopment would work. The second criterion was the surplus plot ratio (PR), which is the ratio between the maximum allowable floor areas and the site area.

For redevelopment to be profitable from a developer's point of view, there must be sufficient surplus PR for generating revenue that can cover both the cost of compensating the owners and an expected return on investment. A major problem in site assembly is proper compensation for the individual owners. Individual owners normally appraise their

Figure 6.2 Location of the Tai Hang District



properties as if they were new. A common argument is that they need extra coverage to make sure that they can find reasonable replacement homes. Hence, they always ask for more than the developer wishes to pay and sometimes even expect to be compensated with enough to purchase a new flat in the neighborhood. This extra compensation must be covered by the extra profit generated by surplus PR. As a rule of thumb, developers will not go ahead with a project with surplus PR of less than 100 percent. For example, if the maximum allowable PR is 8, but the existing building has used only 3, the surplus PR is (8 – 3) divided by 3, or 167 percent.

In the LSC case, initially the maximum allowable PR was 6.5 and the existing building measured 2.75, so the surplus PR was (6.5 – 2.75)/2.75 = 136 percent. The maximum allowable PR had been revised throughout the years. Apparently, when LSC was first built some 30 years earlier, PRs in Hong Kong were much lower. In the late 1990s, under the new

planning framework, the owners or the developers were entitled to the revised PR.[4]

The other crucial point was that there was no need for lease modification application in order to utilize this surplus PR; had there been, all the profit would have gone to the land premium payment. In Hong Kong, leases contain restrictions on the uses of the lots and the maximum possible development or redevelopment allowed. If a lessee wishes to use or develop a lot differently than permitted, a permanent modification or a temporary variation of the conditions is required. It is also the government's policy, in certain areas, to modify old government lease conditions that severely restrict development permitted on a lot to allow redevelopment complying with the prevailing town planning requirements. A premium, equivalent to the difference in land value between the development permitted under the existing government lease and that permissible under the new terms, is normally payable for any modification granted. The government is adamant about receiving this premium, as the land authority is the keeper of a valuable public resource on behalf of society, and the premium represents the proper price for the best and highest use of a particular site. More important, the land premium is a major source of income for the Hong Kong government. During a booming market, most developers do not mind paying this amount, knowing that property values will go up and so will their profits when the project is completed. However, in a slump period, the premium payment acts as a detriment to urban renewal initiatives, causing the number of applications to drop (Li 2006, 78). Fortunately, the developer in the LSC case did not have to go through lease modification; the new development did not ask for more rights than were allowed by the land lease.

Robert Wong of HKL chose the land readjustment model to redevelop LSC because he saw risks in the usual redevelopment process that even the Ordinance might not resolve. First, there was the time factor. The legal procedure involved in the Ordinance was lengthy. The Ordinance had just passed, and there were few precedents. In 1999, the property market was declining, and there was no expectation for recovery in the

[4] The developers and the owners were entitled to the redevelopment profit because the surplus PR was given to the site due to adjustment in the town planning control. There are not many sites of this nature; many old sites were redeveloped before upward adjustments of the PR. It is difficult to argue whether gains from this upward adjustment should be capitalized; Hong Kong does not levy capital gains tax on this sort of gain, nor is there a compensatory system for downward adjustment loss.

near future. Hence, HKL did not want the site assembly process to take too long.

Another risk was the court order. Even if the developer had purchased up to 90 percent of property rights, the court would still have to be satisfied with the age and the state of repair of the property and would want to know that a reasonable attempt to secure the property had been made. There are no objective criteria to define the reasonable age and acceptable state of repair. In the end, the court decides; hence the uncertainty.

Given these circumstances, and to minimize the inherent risks, HKL adopted the vertical land readjustment model. The company named the project a flat-for-flat model. This model appealed to HKL because the upfront cost could be decreased. Most legal fees in the preparation of the joint development contracts could be minimized. The company managed to come to terms with only 99 percent of the owners, and Robert Wong had to go through the legal proceeding of a forced sale by the Lands Tribunal. HKL's contract with most of the owners gave HKL power of attorney to represent the owners in requesting an auction in the Lands Tribunal, as allowed by the Ordinance. An auction was necessary because a few LSC owners refused to join the land readjustment scheme. Lacking the compulsory purchase power vested in the public authority, HKL had to rely on the auction to assemble the property rights to carry out a redevelopment scheme. To minimize the cost at this stage, HKL's contract with the owners specified that, on successful purchase of all the property rights, the sale proceeds paid by HKL in the auction would not go to the individual owners, but would be held by a trustee, who would recycle the sum back to HKL to cover future redevelopment costs. In this way, HKL maintained the advantages of applying the land readjustment model.

At the auction, some other developers also bid for the land. According to Robert Wong, HKL had taken that possibility into consideration, and the worst scenario would be the loss of the site. Had HKL lost the bid to its competitors, there would be no huge financial losses because the incurred costs and a possible small profit would have been covered by the auction sum paid by the winning bidder. HKL also understood that these developers were trying to test the law. In the end, the other developers bid sensibly, and the whole site was transferred to HKL. The individual owners who refused to join the land readjustment scheme before the auction were compensated with the sale proceeds on a pro rata basis.

After the titles in the buildings were successfully transferred to HKL,

the development procedure started. The joint development contract called for HKL to set up a sinking fund[5] for HK$5 million (US$641,000) in an interest-bearing account held by a trustee for the purposes of paying legal fees, architect and consulting fees, and other related administrative charges. This sinking fund would be refunded with interest to HKL on completion and occupation of the new building.

HKL had sole discretion on the design, disposition, and height of the new building as well as on the manner and program of construction and the materials to be used. HKL also agreed to spend no less than HK$1,600 (US$205) per square foot on construction costs, including consultant fees, in the demolition of the original structure and the construction of the new building. Also important in this agreement was the corporate conscience shown by HKL in the agreement to share future profits with the owners—an advantage of land readjustment normally difficult to identify. According to the agreement, if the final profit exceeded 35 percent of the total redevelopment costs, each owner would receive a sum according to the scale listed in table 6.1.

Another issue was the redistribution of the new flats after completion, which will take place between 2008 and 2009. In this vertical land readjustment, HKL illustrated how flexibly the scheme could be applied in urban settings. According to the agreement, each owner would get back

Table 6.1 Profit-Sharing Scale

Profit as Percentage of Redevelopment Costs	Amount to Each Owner
35–40	HK$10,000 (US$1,282)
Over 40–50	HK$60,000 (US$7,692)
Over 50–60	HK$150,000 (US$19,230)
Over 60–70	HK$250,000 (US$32,051)
Over 70–80	HK$400,000 (US$51,280)
Over 80–90	HK$600,000 (US$76,923)
Over 90–100	HK$1,000,000 (US$128,205)
Over 100	HK$1,200,000 (US$153,846)

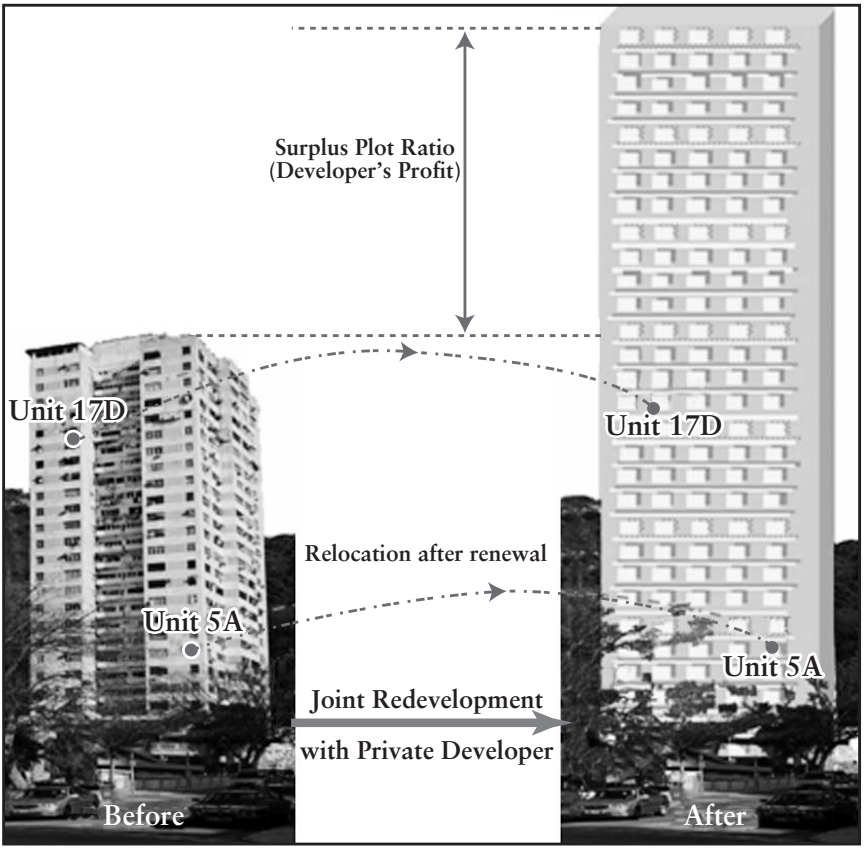
Source: HKL

[5] A sinking fund, according to Millington (1982), is a savings fund into which a series of equal annual payments are deposited; the objective is to replace at least the historical value of a wasting asset at the end of the holding period of that asset.

a new unit of no less than 767 square feet (net area), with a similar orientation and level to the original flat put into the project. The individual owners had higher expectations of the value of their property than the amount offered by the developer, so it was not easy to fully compensate them. By receiving the same flats in the same locations, the owners felt that the value of their assets would be preserved. At worst, they might lose the opportunity of selling their property during the course of redevelopment if a purchaser offered more than the amount HKL offered.

The flat-for-flat system made it unnecessary to justify the magnitude of difference in values between properties due to floor height, orientation, and so on. The owner of flat B on the fifth floor in the old building would return to flat B on the fifth floor in the new building. This reduced the amount of time needed for negotiation and valuation (see figure 6.3).

Figure 6.3 Lai Sing Court Case: Land Readjustment in Hong Kong



Overall, a number of factors contributed to the relatively smooth process. As far back as 1994, the LSC owners had been approached by different developers for redevelopment proposals. For various reasons, these negotiations failed. However, the owners had been "warmed up" in the process of negotiation, and they knew what to expect from a developer. When the market experienced a downturn after 1998, they had learned their lesson well, and they became more pragmatic and willing to compromise. In a declining market, the HKL offer was appealing.

HKL dealt with the long duration of land readjustment by allowing owners to resell their contracts to HKL in the open market. Investors with an optimistic outlook about the future market direction could purchase the contracts and enjoy full entitlement to a new flat in the new building and all cash allowances on a pro rata basis. This way, an interesting futures market was created. In March 2005, around ten transactions of this kind had been implemented, and three were being negotiated.

Moreover, HKL also compensated the owners for their temporary rehousing expenses during the construction period, which would normally take two years in Hong Kong. Each household received a lump sum of HK$400,000. This amount increased with the increment in PR allowed by the government on a sliding scale. In addition, a loan of HK$600,000 based on the prime rate (2 percent) was provided to each owner to lower any deficit. Repayment would not be required until after the completion of the new flat. The owner could then use the new flat as collateral for a mortgage loan to repay the debt. Hence, there would be no extra burden of loan repayment during the construction period. In addition, owners could borrow money from HKL to repay existing mortgages on their old flats, based on the same lending arrangement. Again, there would be no repayment to HKL until completion of the project.

In general, the application of this land readjustment model has become increasingly difficult because the planning regime is getting more restrictive. Surplus PR is less available, and the Lands Department's regulations on modification premium have also been tightened. Moreover, in a recovering market, owners are less keen to accept the land readjustment arrangement, as cash compensation has become more attractive.

A critical point for implementing the land readjustment scheme was the organization of the owners. In the LSC case, the chairman of the owners' incorporation emerged as a strong leader and was able to unite

all owners.[6] Since HKL had to meet the 90 percent property rights threshold, it was important to convince the owners that the scheme was a win-win solution. The chairman was convincing and was willing to collaborate with HKL. Owners gravitated toward him as their leader, which saved HKL a lot of time that would have been spent in negotiating with 159 property owners. More important, the chairman wrote a separate report to the Lands Tribunal in support of HKL's scheme. As mentioned earlier, the trigger point for an auction depended on the age or the state of repair of the building and the goodwill to acquire all properties. The chairman's report, especially the information on the disrepair of the building, helped the Lands Tribunal's decision to a large extent.

Pujiang: A New Experience in an Emerging Market

In China, the booming economy and rapid urbanization have made land more precious than ever before. The central government has started to provide a better legal framework for the protection of individuals' interests. The first State Measures of Compensation for Housing Relocation and Resettlement in the Urban Areas was released in 2001 to regulate resettlement compensation and compulsory administration in urban renewal. However, due to unclear delineation of property rights in China, resettlement and compensation problems persist. This is illustrated by a series of tragic results of compulsory purchase actions all over the country, such as illegal and violent removal of individual owners without adequate compensation. Mistreated property owners have started petitioning the policy bureau of the central government. Since 2002, so many affected owners from all over the country have petitioned the government that local government efficiency in urban management has been based on the number of appeals and petitions received. Consequently, in 2003 the State Council ordered an immediate suspension of compulsory relocation and resettlement in urban areas.

In the midst of the efforts to solve the social grievances arising from urban renewal, land readjustment has been practiced quietly and sporadically across the nation. Theoretically, land readjustment provides a more amiable environment based on negotiation and cooperation

[6] Owners' incorporation is a legal governance entity for private properties in Hong Kong. Members of the incorporation are volunteers, and the chairman is an elected member of the incorporation. For details, see Kent, Malcom, and Walters 2002.

between the private and public sectors. This section examines the operation of land readjustment in a small city, Pujiang, in Zhejiang Province.

Zhejiang Province is a highly industrialized area in the Yangtze River Delta and China's richest province.[7] Because the province faces Taiwan, the central government had invested almost nothing there after 1949. A serious handicap during the Maoist era, the lack of investment later became a blessing because the province was not burdened by polluting steel and chemical plants like those that opened elsewhere during the Great Leap Forward. Since 1949, the economy has entirely depended on private businesses.

From within Zhejiang Province, Wenzhou, which is regarded as the birthplace of China's capitalist economy and is now a center of light industry, has sent its shoes, garments, and lighters all over China and abroad. Yiwu is the largest distribution center for buttons, toys, gifts, and textiles in China and East Asia. Ningbo is the transportation center of southeast China, combining a good harbor, an international airport, and an advanced highway network. Municipal governments in Zhejiang Province rely more heavily on private capital to build schools, roads, railways, and other infrastructure than do any other provinces. In addition, people tend to be more entrepreneurial and creative when it comes to protecting and improving their environment.

With a population of 120,000, Pujiang is not a metropolitan center in Zhejiang Province, but it has a similar spirit about new ideas as do the major cities in the province. Therefore, the application of land readjustment in Pujiang could, to an extent, be treated as a pilot study for the application of the mechanism elsewhere in China.

Xiajizhai Plot Redevelopment

Urban renewal in Pujiang has been under way since 2000. In the following two years, under the temporary policies of land exchanging, self rebuilding, and no-cash compensation, the redevelopment process was hampered by high relocation costs, long construction periods, and unsatisfactory outcomes (see figure 6.4).

In 2003, there were only two modes of compensation for individual property owners—cash compensation and property exchange. Cash compensation provided owners with cash based on the appraised value

[7] After years of rapid development at an annual average of 13.1 percent since 1978, the per capita GDP of Zhejiang Province leaped to US$2,750 in 2004, more than double the figure for all of China. The average net income of farmers in Zhejiang Province has continuously topped that of the whole country for the last 18 years.

Figure 6.4 Urban Renewal Project without Land Readjustment in Pujiang

Before land readjustment was applied, the dissatisfied renewal output caused by inconsistent construction schedules among owners annoyed the municipal government for years. As the picture shows, because of the different construction standards, the external walls differ substantially.

of the existing building. In property exchange, the outgoing owners had the right to buy the resettlement dwellings built by the municipal government at below market value. Thus, both modes of compensation meant that the original owners could not rebuild their houses in situ. Because of strong opposition from property owners who were dissatisfied with such arrangements, only two of the five redevelopment projects under the municipal annual renewal plan were completed. Both required substantial efforts by the municipality to convince the owners to cooperate.

In 2003, a group of property owners in a small community in Pujiang first put forward the concept of land readjustment. Residents of the Nanmen plot, a shabby old area that had been excluded from the urban renewal plan that year, requested voluntary redevelopment. All 77 owners supported the request. Mr. Zhang Zonghui, deputy director of the Urban Renewal Program in the Construction Bureau in Pujiang, decided to give their plan a trial. The authority decided to adopt a redevelopment model that differed slightly from the usual process, and some contingent policies were carried out. Eventually, all residents were resettled in the well-serviced new residential area about five kilometers away in the south urban fringe (see figures 6.5 and 6.6).

The unexpectedly smooth process showed the municipal government that alternative urban renewal could produce better results. The success

Figure 6.5 The Nanmen Plot (Before). Vacated land in the Nanmen plot with a typical old resident district on the left.

Figure 6.6 The Nanmen Plot (After). Well-serviced resettlement district of sitting tenants in the Nanmen plot.

encouraged and convinced other unwilling residents. With more and more voluntary applications coming in, including applications from more than 400 flat owners, Mr. Zhang and his colleagues came up with a new policy, with ideas similar to land readjustment, for the Xiajizhai plot redevelopment project in 2004. They called the new policy the *simulated relocation and resettlement project (mo ni chai qian)*. It was considered simulated because the model was not officially approved, meaning that it required a politically sensitive label.

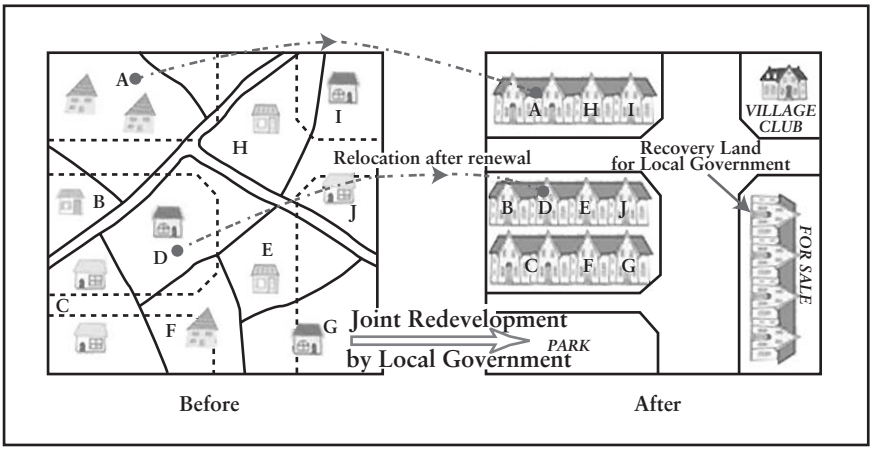
In March 2004, a Xiajizhai plot in the southern suburban area was selected to implement the experimental land readjustment scheme. The resettlement housing would be built in situ because the plot was already on the fringe of an urban area, as designed in the land use plan. With an existing building area of 40,706 square meters, the site included 132 flat owners who shared the same family name, *Ji*, and one state-owned recycling industry.

With full agreement of all the owners, redevelopment commenced in March 2005. Originally, the residents had built their own houses on scattered plots. Once they entered into full agreement for renewal with the local authority, all the sites were assembled. The local authority, together with the representatives of the residents, proceeded with the demolition and redevelopment of the whole site.

After completion of the land readjustment in 2006, each household was allocated a new plot with a better-designed townhouse. The community was upgraded with a better planned environment and a well-served infrastructure, including a village club, public open space, and better roads. Because of the land contributions made by the residents, local authority received bonus plots to sell for rising revenue (see figure 6.7 for the concept applied in Pujiang). This arrangement, however, had worried some Xiajizhai residents because they preferred the community to be occupied by residents of their same family name.

The new model based on land readjustment concepts seems to have improved the traditional procedure of urban renewal (see figure 6.8). In China, under the conventional model, the renewal process is initiated by municipal notification of a renewal plan in which the project outline, timetable, compensation for relocation, and resettlement are detailed. A professional team from the authority is sent to the site to appraise the values of the old buildings and to work out the compensation for each affected household. After a public consultation on the appraisal results and resettlement compensation, resettlement contracts are signed by the municipal government and the existing property owners, signaling the

Figure 6.7 Land Readjustment Applied in Pujiang, Zhejiang Province



start of the construction period. The municipal government is responsible for all upfront costs and is also likely to face huge opposition from affected property owners because compensation is usually lower than expected. As mentioned before, the process is not always smooth.

Under the innovative land readjustment scheme, the whole project is set up under voluntary application from all property owners. After initial appraisal and a public consultant period, the municipal government signs a temporary compensation and resettlement contract with every flat owner, signifying a unanimous support (see figure 6.9). Only after the formal municipal notification of urban renewal has been released can these temporary contracts be considered legal. In this case, the individual owners start the process, so opposition from owners is minimized.

In the Xiajizhai case, the site was vacated in less than two weeks, partly stimulated by an award to residents who moved out of their old building as soon as possible. Flat owners who left early would receive cash awards and higher priority in choosing new dwellings. Because the resettlement compensation would be deducted from the selling price of the new housing units, the authority would not need to pay huge compensation until the completion of the reconstruction.

To obtain full support from individual property owners in the Xiajizhai plot as soon as possible, a favorable compensation policy was put into practice by the municipal government. It included 20 percent of building area payback (see table 6.2) and a purchase of the new house at

Figure 6.8 Traditional Procedure of Urban Renewal Project

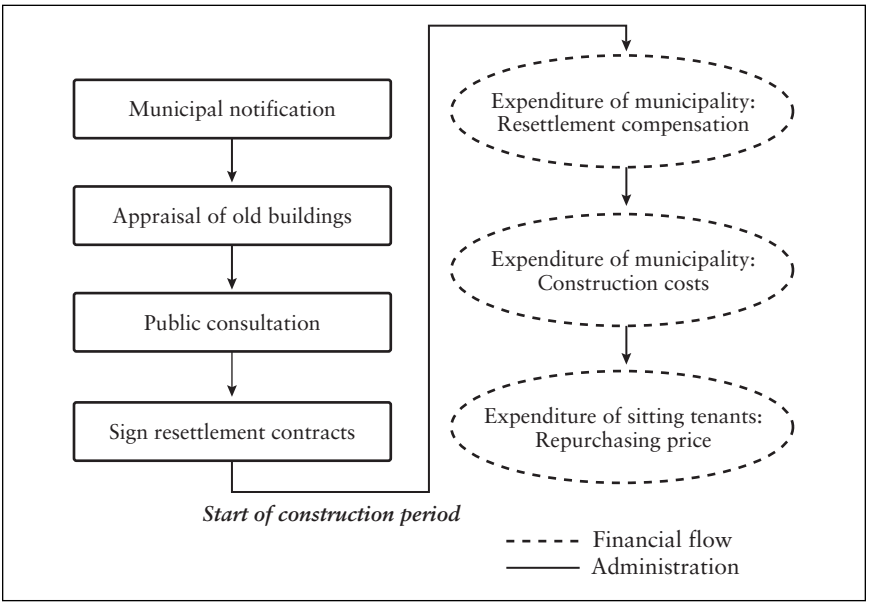


Figure 6.9 Reformed Procedure of Xiajizhai Urban Renewal Project in Land Readjustment Model

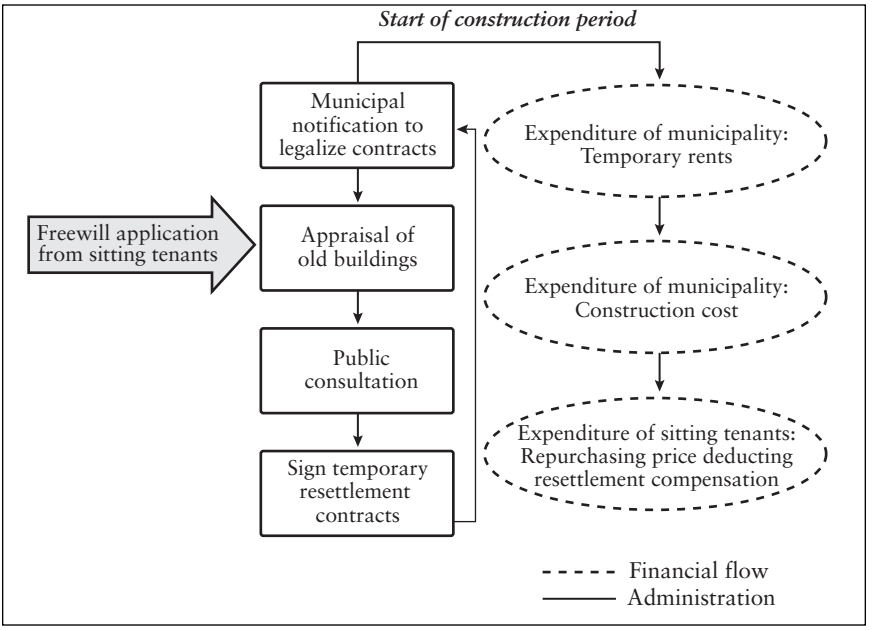


Table 6.2 Area Compensation Standard in Xiajizhai Redevelopment Project

Compensatory Building Area	Redevelopment Building Area	Building Area Standards of Resettlement Dwellings	
a x 1.2	A	< 50 m^2	70 m^2
		50–70 m^2	90 m^2
		70–90 m^2	110 m^2
		> 90 m^2	130 m^2

Source: Mr. Zhang Zonghui, Construction Bureau of Pujiang.

Table 6.3 Repurchasing Price of Resettlement Dwelling in Xiajizhai Redevelopment Project

$$Price_T = Price_1 \times Area_1 + Price_2 \times (Area_1) + Price_3 \times (Area_3 - Area_2)$$

where
$Price_T$: Total repurchasing price
$Price_1$: Benchmark price, US$150
$Price_2$: Semi-market price, US$185
$Price_3$: Market price, US$222
$Area_1$: Redevelopment Building Area
$Area_2$: Compensatory Building Area
$Area_3$: Building Area Standards of Resettlement Dwellings

a preferential price (see table 6.3). For example, according to the compensation standard in table 6.2, one flat owner with an old building area of 78 square meters would receive 93.6 square meters (78 x 1.2) and was qualified for a new house with a usable area of 110 square meters after the redevelopment. The flat owner could purchase the new house at around 145,816 Yuen (US$18,227) instead of 195,360 Yuen (US$24,420), which was the market value of the unit. This made it possible for most residents to afford new houses without outside financing. In addition, a supplementary low-interest loan was available to assist residents who found it difficult to finance the purchase themselves.

Based on the full support of individual property owners and technical support from the municipal government, the project in the Xiajizhai plot was completed in February 2006. Overall, the involved parties were

happy with the results.[8] Some local residents were a little worried about the potential increase of outsiders whose family name was not Ji in the neighborhood. Other than that, neither side had grievances.

A number of factors contributed to the relatively smooth process. First, the physical urban environment of Pujiang made the application of land readjustment more acceptable. The infrastructure deficiency and unsatisfactory environment in the urban center made the need for improvement urgent. With a strong financial base and reasonable compensation, individual owners were inclined to accept *in situ* resettlement in the renewal scheme.

Meanwhile, strong administration support and flexible management by the municipal government in Pujiang provided the necessary policy backup. When the first relocation and resettlement application in the Nanmen plot emerged, the local authority, especially Mr. Zhang, grasped the opportunity and developed it into an integrated procedural framework. All other municipal bureaus gave full support, especially the former mayor.

The policy on reasonable compensation and repurchasing price finally persuaded the residents. Unlike most other urban renewal schemes in China, which normally come without sufficient compensation, in this project individual property owners gained 20 percent extra floor space. All they needed to do was pay for the extra space at a preferential price. As it turned out, some owners actually bought larger dwellings as investments.

More important, the contribution of the resident representatives and organization is not to be ignored. In the Xiajizhai project, the resident committee, including nine volunteers, made enormous efforts to convince all the residents to communicate and negotiate with the municipal government and to supervise the whole construction process. They helped build social capital by serving as liaisons among the members of their community.

Politically, this experiment showed that the approach represents an alternative to existing methods for solving urban renewal problems (Xinhua News Agent 2005). The positive political consequence of zero petitions in the application of land readjustment in Pujiang not only raised a lot of eyebrows throughout the country but also attracted the

[8] The authors interviewed the authority and the local residents involved in the redevelopment scheme. Directors of the local Land and Natural Resource Bureau, the Construction Commission, and the project leader were all interviewed. A number of residents who moved out of the area temporarily and the resident representatives in the project team were also given the chance to express their views.

interest of the central government. Even the Xinhua News Agent, the top official news medium of the central government, reported on the project at the beginning of 2005.

Conclusions

Although land readjustment schemes have been tried in many different countries with varying degrees of success, they have worked best with rural or suburban land, since the number of owners involved has usually been small. This makes negotiation of an acceptable package easier. We can draw some interesting lessons from the two cases discussed in this chapter.

First, land readjustment proved to be financially and socially viable. From a theoretical point of view, land readjustment helps minimize transaction costs by providing an ideal governance structure in the redevelopment process (Li and Li forthcoming). In the Hong Kong case, risks to the developer were greatly reduced. The developer paid only the legal fees in drafting the land readjustment collaboration document with the property owners and did not even need to secure funding to purchase property rights from the owners, while standing to gain from the sale of the extra floor areas after completion of the project. The individual owners did not feel ripped off by the developer. They obtained completely new flats and would not in any sense be worse off than they were in their old flats. This case is an example of a public-led renewal project in which negotiation with the owners on compensation would have normally delayed the project.

The case in Pujiang also illustrated that land readjustment can help minimize the political and social costs of urban renewal. For suburban cities, residents' wishes to stay in the same neighborhood sometimes outweighs the compensation package. The application of the land readjustment model may reduce the conflict between authority and the owners by allowing the latter to return to the original neighborhood on the completion of the project.

Second, land readjustment could work equally well in a highly populated city if the planning officials allow higher density development as an incentive for the private developers and lend their supports to the undertaking. The case of Hong Kong shows that a city without a development gains tax allows developers to explore more opportunities even in a sluggish market as long as they see potential profits from the redevelopment

scheme. The Pujiang case shows that official support of an innovative attempt to solve urban problems is instrumental in a society in which local government tends to be more bureaucratic.

More important, both cases show that urban renewal is more about people than about buildings. The individual owners were able to see the benefit of renewal when they collectively supported the motion. The developer and the local authority also saw the importance of collaborating with the owners and of giving generous and accommodating support. For similar schemes to be successful in other markets or regions, the government's attitude toward land readjustment is important. While land is a social resource, residents will benefit from minimum intervention of the public authority if land is utilized in an innovative way.

In China, where property rights protection and delineation are far from perfect, the land readjustment model in some ways provides a cleansing mechanism for the authority to assign property rights and redistribute them in an equitable way with proper registration. After the land readjustment scheme, all properties, including those vested in authority for public sale, will have well-established titles, thereby facilitating the development of a land market.

Land readjustment is not a panacea for all urban renewal problems. It requires goodwill on the part of the owners as well as the developer and authority. In the Hong Kong case, the developer provided extra financing for those who could not move out during the redevelopment. The developer also allowed flexibility, permitting owners to sell their contracts in the open market. The owners, on the other hand, worked together under dedicated leadership provided by the chairman of the owners' association. Without these elements, the scheme might have fallen through.

The cases discussed in this chapter have not been fully completed at the time of writing, and these conclusions hinge on the expectation that the two cases will succeed. In the Hong Kong case, succeeding means that the developers will obtain a reasonable profit and residents will obtain flats that are no worse than those they had before in the same neighborhood. For the Pujiang case, the residents should enjoy a better environment with well-served facilities. There are signs that these outcomes are possible. The housing market in Hong Kong has rebounded since the end of 2004, and property prices are trending upward. In Pujiang, residents are getting bigger flats, and some of them are even willing to pay for extra floor areas after renewal.

In Pujiang, both the government and the owners are relatively

affluent; thus, rent-seeking by public officials was not serious enough to impede the renewal process. Yet, land readjustment does allow an opportunity for the authority to expropriate properties from owners with minimum force. The authority could dress up the land readjustment scheme to be as appealing as it sounds theoretically, but the redistribution of properties could still be unfair or could rely solely on personal connections. If the technique is handled improperly, land readjustment may create more grievances than do other conventional methods. This is because, through the land readjustment mechanism, property rights from individual owners will be all vested in a single redevelopment agency led by the authority. This may create an opportunity for abuses of public power in reallocating properties after the land readjustment and collusion among special interest groups. In the worst-case scenario, by giving up their properties to the authority for future redevelopment, individual owners may lose both monetary compensation and their claim to a replacement house. This is possible in a society where property rights are not well protected. In a relatively immature market like the one in China, the human factor remains critical to the implementation of land readjustment.

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CHAPTER

7

Land Assembly, Land Readjustment, and Public-Private Redevelopment

LYNNE B. SAGALYN

One of the firmest premises of redevelopment is the need for public action to deal with the practical problems of urban land assembly: numerous small parcels, fragmented ownership, and balkanized derivative interests, all of which hinder spontaneous market-driven transformations. Relying on the process of eminent domain to assemble land has been the stalwart convention of urban renewal as practiced in the United States during the decades following World War II. That process typically couples government's sovereign power to seize private property—for a "public purpose" with payment of "just compensation"—with its police power to control which new land uses will be put in place, and it packages those powers in a special-purpose entity designed to facilitate public-private development ventures. For urban redevelopment, government is often, in effect, redistributing property rights among private interests. The political power to do so comes from an evolved legal system that countenances a broad standard about what constitutes public purpose and bestows judicial deference to agency execution of public-private endeavors.

Political risk, therefore, remains one of the clearest policy legacies of the federal urban renewal program's sweeping use of condemnation to clear large swaths of city centers. Though relied on repeatedly, compulsory purchase—whether employed for urban renewal or for economic development—remains fraught with political problems. As policy, it is often considered heavy-handed. Because it is politically unpopular, public official advocates are put on the defensive from the first announcement

of condemnation intentions. Because it is inherently controversial, delays from ensuing litigation are inevitable. While government tends to prevail in contests of condemnation, the process is not without legal and political costs. Despite fresh evidence of the public's ultimate judicial success, time has not lessened the controversy in the court of public opinion.

The legal and policy arguments for the use of eminent domain are often rational, proven, and, more often than not, sanctioned by the courts. Yet, given that the condemnation process is cumbersome and costly, inherently litigious, and full of political risks, what other policy options exist to effectuate public ambitions that call for land assembly? In particular, what is the applicability of land readjustment to the types of public-private redevelopment projects evident in U.S. cities today?

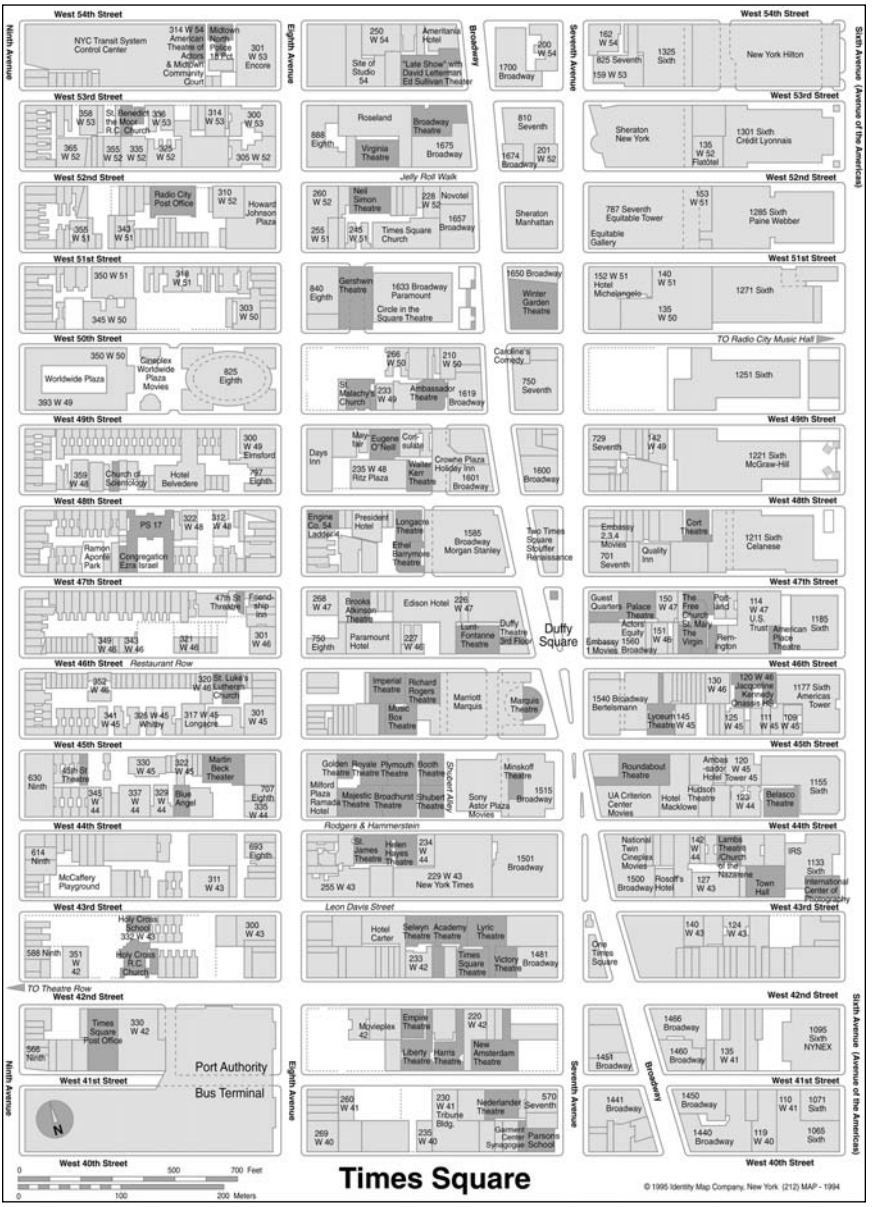
Based on a major study of the redevelopment of Times Square (Sagalyn 2001; see figure 7.1), this chapter addresses the question in light of the lessons learned from the 42nd Street Development Project (42DP), where land was assembled by the customary method of condemnation.

Land Assembly for the Redevelopment of West 42nd Street

From the start of the cleanup in 1980, New York's objectives for West 42nd Street (Times Square) were clear and dramatic: (1) to sanitize the "Deuce," 13 acres in midtown Manhattan that had long been a bottleneck in the westward expansion of the midtown business district; (2) to effect a transfer of land to new commercial uses—"good" uses to wipe out the "bad"; (3) to retain, rehabilitate, and reuse the nine midtown theaters; and (4) to renovate the Times Square subway station complex (see figure 7.2). The policy of choice (and necessity) was public development. The tools were land assembly through comprehensive and simultaneous taking, using eminent domain and a financing strategy that shifted the costs of condemnation (as well as other costs) to the private sector and offered extraordinary development density and tax abatements in exchange.

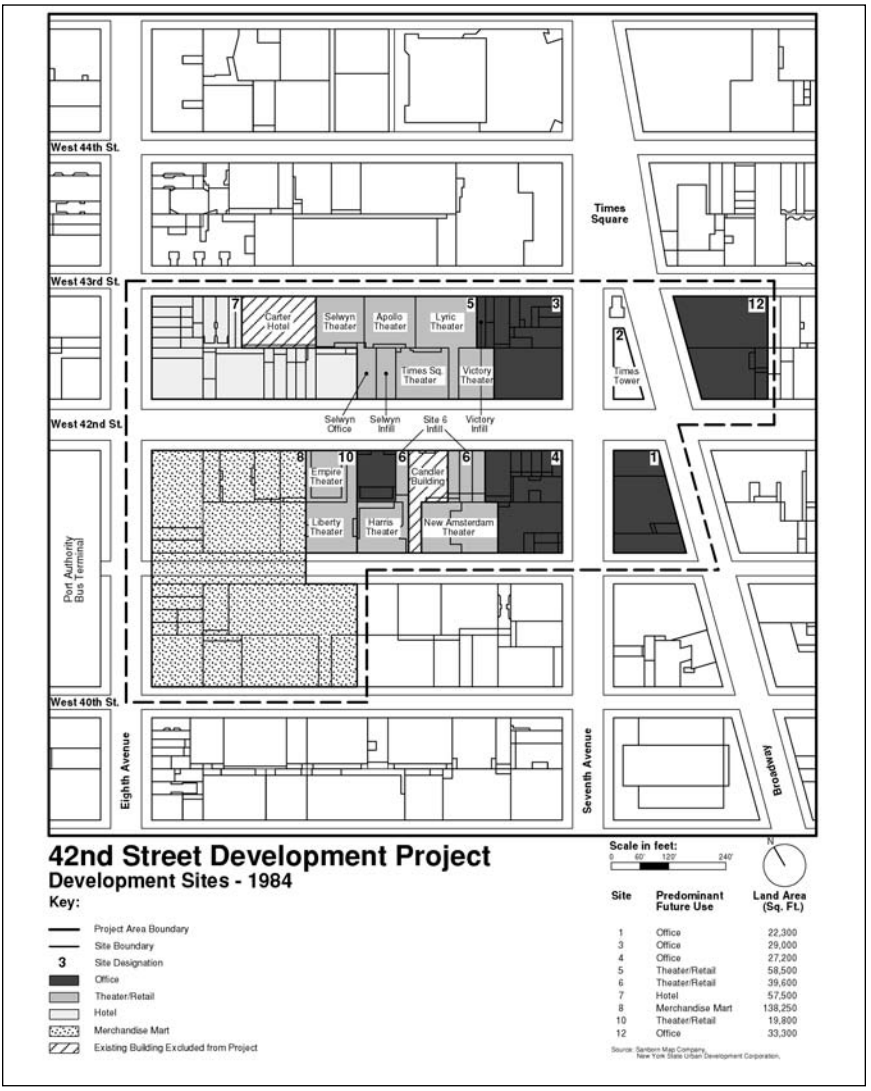
If condemnation appeared to be the obvious solution, it was unprecedented as city policy. Until the 42DP, New York had refused to use eminent domain for a commercial project in midtown Manhattan. The city's policy stance had been firmly grounded in the belief that the market alone, through private development, could lead redevelopment in midtown Manhattan. Public development, particularly if it involved land condemnation, was to be reserved for specific areas or projects in which

Figure 7.1 Times Square



Source: Reprinted with permission of Identity MAP Company, Inc.

Figure 7.2 42DP Area, 1984



Source: Morgan Flemming for the author.

the market clearly needed assistance, the classic example being to create a cultural arts complex for the city at Lincoln Center.

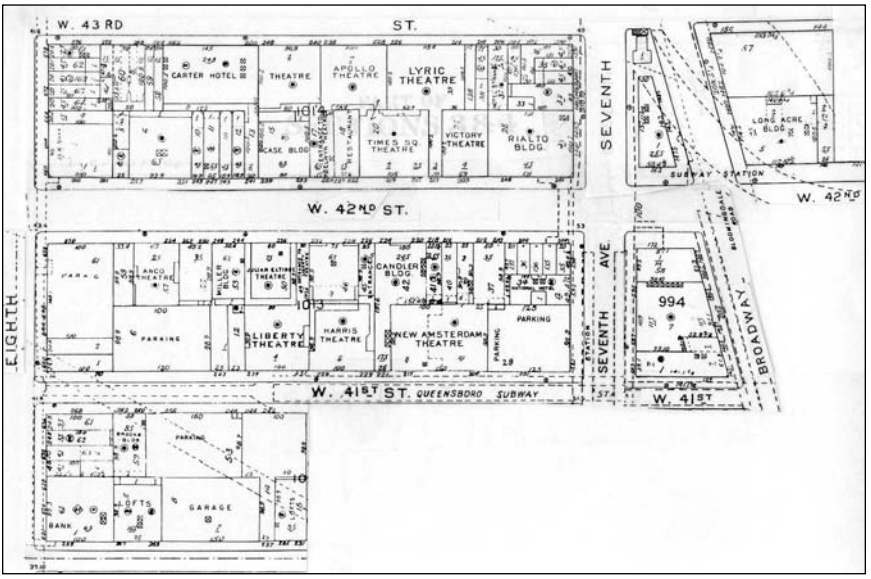
The land assembly task facing city and state officials in the contemplated cleanup of West 42nd Street involved 74 lots (see figure 7.3) and many times that number of derivative interests: leases, subleases, and sub-subleases (sometimes even sub-sub-subleases) of space to investors and operators of sex-related businesses as well as of conventional retail shops and small restaurants. Such layering of property interests (typically on short-term leases) often defines transitional real estate areas, especially those with a concentration of adult entertainment uses. Urban land assembly involves buying out all of these interests, not just the interests of the underlying owner of the fee position.

The taking task was further complicated by an inventive, if unusual, funding arrangement by which the city privatized the public financing of the costs of condemnation.[1] The city was constrained by its mid-1970s fiscal crisis, and the political mandate of the time required city officials to protect against rising land values as the project moved toward execution. The city could not and would not pay out of pocket for the cash costs of condemnation; instead, it would rely on off-budget financing mechanisms: density bonuses, tax abatements, and rent credits.

Litigation is part of the development process in any large-scale project in New York and other cities. Nonetheless, the record of the 42DP was extraordinary: 47 lawsuits in three distinct rounds. The first round of cases, the so-called strike suits, numbered 27. These tested the legitimacy of 42DP as public policy and are most relevant here. Two challenges based on First Amendment rights brought by owners of the theaters and operators of stores selling sexually oriented materials were fairly unique to the project, with its existing concentration of adult entertainment uses. Seeking to stop or at least stall the project, other lawsuits filed during this intense two-year period challenged the findings of blight under the Eminent Domain Procedures Law (EDPL). Still others challenged the data studies of the project's anticipated environmental impacts under the State Environmental Quality Review Act (SEQRA). In a tactical maneuver,

[1] The financing arrangement contemplated shifting the risk of rising land acquisition costs to the private developers of the commercial uses, primarily the office towers. The city planned to repay this loan advance through rent credits on the underlying lease payment for the office sites, which would be owned by the state entity responsible for leasing the sites to the developers. The financial imperative that the city take no risk shaped the program of uses and increased the political risk of the project, which the strategy sought to mitigate. Once two-thirds of the street was under the public sector's control, the later phases of condemnation were governed by financing arrangements that relied on traditional sources of funding from the city's capital budget.

Figure 7.3 Land Assembly Map



Source: 42nd Development Project, Inc.

another environmental lawsuit brought under the citizen suit provision of the Clean Air Act by a coalition of activists, economic interests, and residents of the nearby neighborhood of Clinton unsuccessfully aimed to have the case heard in federal court. The judicial success of the state agent in charge of the project, the New York State Urban Development Corporation (UDC), did more than validate the project's public purpose and policy rationale; it also clarified and confirmed the state corporation's expansive powers as a public developer.[2]

A second round of lawsuits filed after the UDC signed lease agreements with Times Square Center Associates (TSCA), the designated developer for the office sites, attacked the project on a variety of procedural fronts. All three second-round suits took aim at the public's financial deal with the developers.

The policy decision in mid-1987 to go forward with sequential development of the project spawned a third round of lawsuits. Instead of

[2] One decision in particular, *Waybro Corp. v. Board of Estimate* [67 NY2d 349.] 493 N.E.2d 931. [502 N.Y.S.2d 707] (1986), broke significant new legal ground when it affirmed the UDC's power to override the city's community-based Uniform Land Use Review Procedure (ULURP), hitherto a substantive legal issue because the UDC statute was less than crystal clear on this point.

waiting for agreements on all of the project's sites, UDC and city officials decided to proceed with the eastern portion of the site—the four office towers—letting the western portion slide until a later time. Since the original strategy for the project called for simultaneous condemnation, the General Project Plan (GPP) had to be amended to allow for sequential condemnation of the sites. Every such discretionary action, however, provides the impetus for a new round of litigation, which happened in this case. UDC carefully prepared the necessary feasibility reviews and a supplementary environmental assessment of the proposed modifications. Public hearings on the amendments to the plan followed, then UDC board approval of the amendment as well as of the terms of the leases with the office developer, and finally review of the leases by a state regulatory board. As soon as these procedural steps had been completed, the opposition entered into a third round of litigation, filing 13 new lawsuits within an 18-month period. "The things we were unhappy about weren't things you could sue about," developer Douglas Durst, a constant opponent of the project, said later. "But we could sue about the fact that the Eighth Avenue part of the site was being abandoned [Dunlap 1996]."[3]

This round of litigation also brought a lawsuit by a different competitor, Lazard Realty, Inc., a real estate affiliate of the Lazard Frères investment bank and the developer of the International Design Center of New York (IDCNY) in Queens, another city-state coalition project. Lazard claimed that UDC's approval of the supplement to the Final Environmental Impact Statement (FEIS) did not examine the economic effect on IDCNY of the new use for site 8. The challenge was procedural: The amendment permitting site 8 to be used as a wholesale or interior furnishing mart, rather than for computer or apparel use as originally contemplated in the GPP, Lazard argued, was an "action" requiring de novo review under SEQRA. On a substantive basis, the investment bank/developer claimed that the change in use would have adverse effects on IDCNY and the Long Island City community. Although the lawsuit had the potential to delay or halt the project, Lazard Realty legitimately objected that its economic interests in IDCNY, fostered through public assistance, would be negatively affected by the public sector's changes in

[3] Moving forward on all fronts at once had always been deemed necessary but, as events had proven, was frustratingly elusive. After approval of the project in 1984 by the city's legislative body, the former Board of Estimate, a lot of discussion had taken place, but no definitive private commitments for the western front of the project had materialized. Given the stalemate, it became clear that the project had to be done sequentially, in phases.

the plan for the 42DP. Other delay-inspired suits similarly claimed that the modifications in the project triggered the need for another round of statutorily mandated reviews—new hearings and determination of findings pursuant to EDPL and a de novo EIS—as well as resubmission to the Board of Estimate (BOE) for approval. The court found otherwise in each case.

Finally, in May 1989, after having won the round three cases, UDC successfully filed its condemnation petition for the phase one sites. UDC took title to the properties in April 1990.

Predictable Motives

Transparency marks the motives and predictability the tactics when plaintiffs are identified in terms of their interests. As is evident from the profile of 42DP litigants presented in table 7.1, the overwhelming majority of legal challenges were brought by those immediately affected by the project: businesses in the project area whose sex shops, bookstores, and movie theaters would be shut down or whose property would be taken by eminent domain, as well as competing real estate interests with property holdings nearby that were destined to be adversely affected by the proposed new development.[4]

A small group of economic interests actually spearheaded approximately four-fifths of the lawsuits. The most prominent litigant was a family-run private firm specializing in factoring (a type of lending commonplace to the garment industry) that, according to court papers, did about $1 billion a year in business out of its older, well-maintained seven-story building on the north side of 41st Street, within the boundaries of site 1. The company simply wanted to stop the project or, at least, the condemnation of its building. Erected in 1907, the building was, in the words of the U.S. Court of Appeals opinion affirming the District Court's dismissal of the case, "structurally sound, fully utilized," and "not blighted or substandard." The company's first suit posed a classic test of taking for a public purpose under the law of eminent domain. In finding for the defendant, the court reaffirmed well-established precedents underlying implementation of urban renewal efforts: that there was legitimate public purpose underlying the project and the proposed con-

[4] The other seven, ostensibly, were brought by community or environmental interests who held the lead plaintiff positions. These community-interest lawsuits, however, were not what they appeared to be, given that, in five of the seven cases, legal counsels for the major economic-interest litigants were also representing community-interest litigants. Accounting for that crossover, vested economic interests instigated 45 of the 47 lawsuits.

Table 7.1 Interests Behind Litigation of the 42DP

Interest Group as Lead Plaintiff	Number of Legal Challenges
Economic Interests	**40**
Adult entertainment operators	2
Theater owners and/or operators	5
Competing real estate interests	12
Property owners (nontheater)	21
Community Interests	**7***
Clinton residents	3
Elected officials	2
Environmentalists	2
Total	**47**

*For five of the seven community-interest suits, the same attorneys represented two of the major economic interests.

demnation was rationally related to that purpose. If the ruling affirmed the constitutionality of the taking, it did nothing to quell what became a steady stream of litigation from the firm, its affiliated interests, and its counsel. Over the course of the five years beginning in 1984, they brought the single largest number of lawsuits—17—and did not give up until the very end.

Among the other litigants, the 42nd Street theater owners were the most obviously affected property owners. Of the 15 movie theaters in the project area, 14 were controlled by a family-run organization that had been a business force in Times Square since the late 1920s. Together with the other operator, the organization brought five lawsuits. During the bidding process, the dominant operator announced: "we're just not going to turn over a business that's been in our family for 50 years to some other operator." Having failed to win the developer designation for the five theaters on site 5, the operator went on record with the statement that his company would "vigorously oppose the project at every level of proceeding on up through the courts" (Gottlieb 1984; Smith 1982). The theaters were revenue-generating machines that primarily showed low-budget martial arts and horror movies along with sexually explicit films and some mainstream Hollywood fare. They typically did "a volume of

business second only to the major Times Square first-run theaters," according to the DEIS.

Developers with potentially competing property interests were another identifiable set of litigants. The Durst family interests put their name on five lawsuits directly, but the rumors of their financial backing of many more are legion. Longtime artful assemblers of land and developers and owners of midtown Manhattan property with extensive holdings in midtown west, the Dursts owned a major land assemblage adjacent to site 12 on which they hoped to erect a major skyscraper. The Milstein family, also long-established real estate developers in the city and owners of the Milford Plaza Hotel between 44th and 45th Streets on Eighth Avenue, wanted to participate in the project. Unsuccessful bidders for both office and mart development rights, the Milsteins brought at least four lawsuits.

Together, these seven vested economic interests accounted for 37 lawsuits representing 79 percent of the 47 lawsuits challenging the project. All the cases were dismissed, but one in which the court found a procedural defect in the FEIS technical analysis was later reversed on appeal. A winner, the public sector nevertheless remained powerless to control the interminable delays and crippling loss of momentum brought about by so many continuous lawsuits.

Delays and multiple suits notwithstanding, in April 1990, some six years after the city's legislative body had approved the project, the public sector finally took title to 56 parcels that made up two-thirds of the street. Two later phases of condemnation brought the entire block under public control. The last phase of condemnation (to accommodate new headquarters for the New York Times Company) is now complete, though the valuation settlements are ongoing.

Costly and Cumbersome

Contested valuations would undoubtedly trigger another lengthy set of procedures, as owners could take the state's good-faith offer based on the prevesting appraisals while litigating for larger payments. To settle valuation disputes, experts' opinions on valuations would be submitted by the state's appraiser and the condemnee's appraiser, with the final condemnation award resolved through either negotiated settlement or trial, a process two noted legal scholars characterized as "a battle of wits between experts" (Haar 1989). Measured in time, tenants moved, and owners compensated, eminent domain appears to be a clumsy instrument, as the numbers in table 7.2 attest.

Table 7.2 42nd Street Development Project Condemnation Statistics

Taking	Tax Lots:[1] Number	Percent	Tenants Moved: Number	Percent	Months Lapsed Until Possession[2]	Award[3]
1	34	61	290	72	89	116
2	18	32	100	25	13	ongoing[4]
3	4	7	14	3	8	ongoing[4]
Total	**56**	**100**	**404**	**100**	**110**	

[1] The project area is made up of 74 tax lots, two of which—the former Times Tower and the New Amsterdam Theater—would not need to be condemned. Sixteen lots that make up the original configuration of site 8 (part of which is taken in phase 3) remain in private hands. Phase 4, the taking of 11 properties for the New York Times Company headquarters building, cleared its last judicial hurdle in mid-August 2002.
[2] The time between vesting and the departure of the last tenant.
[3] The time between vesting and settlement of last ownership valuation claim.
[4] As of January 2001.

The actual costs of condemnation remain elusive because most valuations to date have been settled privately rather than through trial. Site acquisition costs for the first phase of condemnation are estimated to be $334.5 million. Accounting for the budgeted allocation of $48 million for phases 2 and 3, the final costs of which will undoubtedly come in higher, the total of these takings to date comes to $382.5 million.[5]

The Potential for Land Readjustment

The experience with land assembly for the 42DP vividly argues for a more efficient strategy.[6] To what extent might the process have been less cumbersome and less delayed, if not less costly, had some form of land readjustment been the mechanism by which the city and state assembled the land? More generally, how might land readjustment be applied to typical urban redevelopment? This might not be the right question because the typical situation defines distinct planning objectives that might not mesh with the retention of the original property owners. In

[5] A full and final accounting of all land costs for the project would have to take into consideration future acquisition costs for the two remaining sites, the parcels to be used for the New York Times Company headquarters and the privately owned parking lot.

[6] The author would like to acknowledge the research assistance of Matthew Jacobs.

the case of West 42nd Street, for example, the city sought direct and active control (beyond regulation) over development. Under land readjustment schemes, in contrast, the public agency does not take responsibility for the building of nonpublic facilities such as housing or commercial spaces or for deciding on the redevelopers of the nonpublic sites. Under land readjustment, instead of acting as a clearinghouse for parcels of land, the government agency acts as the facilitator of a formalized process of cooperation among property owners.

Apart from a large-scale redevelopment project in which issues of control and the redefinition of land uses are often paramount, land readjustment may have the potential to be a useful mechanism in the United States. It may be a more effective tool than conventional municipality-led redevelopment involving eminent domain or conventional acquisition, for example, to rationalize land use patterns in failed subdivisions, obsolete cooperative apartment houses, older inner-city suburbs, or neighborhoods blighted by failed projects of any kind. Land readjustment is potentially much more efficient than municipal site ownership precisely because the original owners are retained as participants, thereby eliminating the need for a request for proposal (RFP) process to choose project redevelopers. This is the procedure's greatest advantage in terms of saving time. Additionally, the process can create either salable publicly owned parcels or public improvements, both potentially at no cost to the public, while at the same time increasing property values and, thus, the tax base.

When compared with the typical eminent domain–RFP process, one major disadvantage stands out: Urban land that is the object of a redevelopment scheme is frequently controlled by speculative investors who lack long-term interest in either the neighborhood or the property and who may also lack skills to successfully redevelop property. As in the case of the 42DP, these types of owners are likely to either passively oppose or actively challenge the process.

Conversely, community development corporations, which exist in many U.S. cities, may be suitable entities to manage the land readjustment process. Municipalities confronted with a mix of blighted properties owned by speculators and stocks of properties acquired through municipal property tax delinquencies may find readjustment to be a useful tool to enable property owners to undertake the redevelopment process. Institutional capacity obviously becomes a critical consideration in such situations.

As an approach to land assembly, it is fair to ask whether a land read-

justment process could be carried out more efficiently than a compulsory taking and with greater fairness to property interests beyond just compensation. Would the process engender less opposition because landowners would have vested rights to participate in future redevelopment? What type of new economic interest is created through a land readjustment system that might mediate opposition by property owners? Since vested economic interests are a major source of litigious opposition, as evident in the case of the 42DP, how might a system of land readjustment convert economic interest into political currency?

A number of generic problems, both technical and political, adhere to the execution of land readjustment schemes (Larsson 1993). These include large upfront expenditures of time, tricky valuations of contributed interests and determinations of cost-equivalent land, and holdouts. In addition, the length of time it takes to execute a readjustment scheme defines owners' opportunity costs of pooling their land interests. These issues have already been covered in this book.

The application of a land readjustment model to urban land assembly for public-private redevelopment involves several key policy issues. These issues include: (1) the creation of new economic interests; (2) the balance of public objectives and private interests; and (3) the implications for public finance of a voluntary land-pooling system.

Creating New Economic Interests

Land pooling through a readjustment scheme creates a vested economic interest in the project's future overall development value beyond the present value of the contributed land interest. Under New York State's eminent domain statute, valuation of condemned parcels is determined at the time of vesting without adjustment for the effect of project impact on an impending future or negative effect of current blight. Whether or not a landowner seeks to subsequently redevelop the newly plotted land parcel, it can be traded or sold (as with transfer of development rights programs) or combined with parcels of others who have the motivation and capability to redevelop. In other words, it has financial currency. This might provide motivation for cooperation. In contrast, the buy-out model common to eminent domain provides no cooperative motivation and no upside from redevelopment's future potential, only a financial settlement of current-value just compensation.

To envision this new type of economic interest, consider a system in which the public sector creates a legal entity to redevelop land within a

defined project area, some type of joint stock corporation[7] whose shareholders include cash investors (private and governmental) and existing property rights owners (owners, tenants, and leaseholders) who are issued shares in proportion to the value of their property rights as determined by a fair and just system of valuation.[8] Share interests in the larger redevelopment venture allow existing property interests to benefit from the expectations of future capital appreciation; they can be monetized—through sale, barter, or financing (subject to any short-term initial restrictions)—at the holder's discretion via the marketplace for real estate development investments and on the holder's own timetable. At a minimum, because the shares issued are based on appraised fair market value, existing property owners theoretically would receive just compensation as under eminent domain procedures, yet if held for investment, the shares promise an upside—returns derived from owning a piece of the whole project, which has greater market value than does any particular individual component. Earnings in the form of dividends and capital appreciation might, as a matter of municipal policy, be exempt from taxation for some specified period of time, similar to the tax abatements that cities commonly give to corporations and developers to further economic development goals.

This scheme is, in fact, the outline of the redevelopment structure put in place by the government of Lebanon in the early 1990s to implement an ambitious plan for rebuilding the war-torn central district of Beirut after 15 years of intense civil strife caused social havoc, devastation of buildings, and complete deterioration of the city's infrastructure and public facilities. Redevelopment implied the restoration and construction of 4.4 million square meters of built-up space and the installation of modern infrastructure in the core of the city. The ambitious endeavor required a comprehensive legal, financial, and executive approach to

[7] The main activities of the joint stock corporation would be financing and ensuring the execution of infrastructure improvements, property development, and property management of the redevelopment in accordance with the approved master plan and a development strategy submitted to the appropriate governmental bodies. The principal roles of the public sector would be broad: to define the limits of the area affected by the project, approve articles of incorporation for the joint stock corporation, develop the master plan of land uses and infrastructure and ensure its approval, set out and manage the system for appraisal valuations, hold priority rights to the subscription of capital, and maintain a voting presence in the corporation through representation on its board of directors.

[8] As project-specific entitlements, these shares are passive, meaning they carry no implied rights to actively redevelop the parcels, participate in the direct decision making for such redevelopment, or reoccupy specific sites within the project area. The passive character of the shares does not, however, diminish the long-term economic benefits of the arrangement, especially if the redevelopment corporation is publicly traded on a listed stock exchange. Depending on the scale of the redevelopment endeavor and the format of the joint stock corporation, the rights of existing property owners might also include rights of first refusal to redevelop a site as long as the submitted proposal is in conformance with the approved plan for renewal.

implementation. Many complications affected the reconstruction plans of the capital city, including extreme fragmentation of property rights, entangled relationships between tenants and landlords, and a large number of small lots—conditions not unlike those in the typical American urban center. In an oversubscribed initial public offering (IPO), the government-backed Lebanese Company for the Development and Reconstruction of Beirut Central District, popularly known as Solidere, raised US$926 million, 42 percent of the initial subscription target—representing perhaps a third of the project's estimated cost—from some 20,000 investors. Contributions of approximately 1,650 real estate lots from existing property rights owners for a fixed amount of US$1.18 billion (determined on the basis of the final value of such property and rights published by the Higher Appraisal Committee, which was set up by the government to determine valuations) made up the other piece of Solidere's initial capitalization. In a dramatic privatization of the reconstruction process, Solidere was gambling on the capital markets to finance Beirut's redevelopment. Soon after the 1994 IPO, DuBois (1994) reported on one analysis that indicated that the company's real estate assets were worth more than what Solidere paid for them. In fact, the shares available to Lebanese and Arab investors other than the project area's property rights holders were issued at a par value of US$10 per share and had traded at between US$11.25 and US$17.75 in the months following the IPO.

Retaining Owners as Participants

Retaining original owners as participants in redevelopment introduces individual landowner preferences into the public-private process and mediates, in part, the potential political problem of displaced interests. Rather than being victims, the original owners can directly participate in the planning process and express dissatisfaction with the proposed readjustment scheme. Retention of the right to develop at will and as desired, subject to municipal land use regulations, might lead to less contention and opposition.

In that sense, this potential seems to address William Doebele's question about how the advantages of a land readjustment scheme might be converted into political constituencies.[9] A natural constraint exists,

[9] At the Lincoln Institute 2002 workshop on land readjustment, William Doebele raised a set of questions for all participants to address (Doebele 2002).

however, in urban areas with layers of property interests, since the right to participate financially in the readjustment would lodge solely with the landowner and would exclude those who hold operating retail tenancies or residential tenancies. These interests, therefore, might still find it in their interest to litigate. Some form of retained development rights might be a solution; urban renewal in California provides existing landowners with some type of preferential position.

In concept, retained ownership strikes more of a balance between individual preference and publicly desirable development. This objective may be hard to realize in the typical redevelopment project, however, because public-private redevelopment projects typically seek physical transformation or economic development of a size that is not well-suited to retaining existing owners as future participants. Typically, the existing owners do not have the means, ability, or motivation to engage in redevelopment on the scale contemplated by the public sector. In some cases, as with the 42DP, existing owners and their tenants are themselves the target of removal. Redevelopment via condemnation has, in effect, come to mean a changeover in private ownership or, as it is sometimes described by opponents and journalists, taking from one private owner to give to another (Herszenhorn 1998; Starkman 1998).

Reinforcing the Self-Funding Mandate

One of the most salient attributes of redevelopment in the post–federal urban renewal era is the political mandate that redevelopment projects derive all or part of their funding internally—that is, from the planned commercial income-producing activities. Having to rely solely on their own funds to effectuate renewal, cities have drawn on a broad range of off-budget funding strategies. Whether funds come from tax-increment financing, development value created through zoning density incentive bonuses, or any other type of off-budget mechanism, the politically favorable off-budget preference is clear (Sagalyn 1990). Redevelopment carried out through a special-purpose public authority often has special regulatory powers that enhance the project's ability to create development value through project-specific density arrangements, a situation referred to as density financing (Sagalyn 2001, 91–95). When land assembly, whether through eminent domain or land readjustment, is combined with a redefinition of development rights, the public sector has the capacity to create development value that can help finance the public components of the project.

One clear advantage of a land readjustment scheme is the extent to which it can reconfigure the financial obligations of local government by reducing, if not completely eliminating, major upfront costs for land acquisition. Most significant, internalizing this cost reduces the financial risk of rising acquisition faced by a municipality during the inevitably lengthy process of land assembly. Land readjustment theoretically provides the potential to finance the public pieces of the redevelopment equation, infrastructure and public amenities, for example. On the other hand, would it eliminate the need for the land write-down that has been viewed as a necessary condition to buying the private developer's interest in redeveloping marginal or high-risk neighborhoods? Unless the original owner becomes the redeveloper, this seems unlikely. If there is risk of a weak or overbuilt property market on completion of the project, the need for subsidy will be magnified. Moreover, what happens if values at the end of the process are less than contributed values? Will the owners, the municipality, or the facilitating entity bear that risk?

Policy Issues Particular to Urban Redevelopment

The potential for land readjustment as an alternative to eminent domain comes up against several formidable practical problems common to urban redevelopment.

Persistent Fragmentation of Ownership

Perhaps most significant, land readjustment fails to deal with one of the most salient physical characteristics of cities: the multiplicity of small lots. This is especially acute in New York, where the typical grid parcel hosting a small residential building and ground-floor retail stores is just 25 by 100 feet. When land is readjusted as part of a larger project, these ownership interests will likely result in a reallocated land plot too small to readily facilitate redevelopment. Given that most urban redevelopment projects seek to create a new critical mass of commercial and residential private investment, this is a major constraint on application of land readjustment schemes.

Reduced Control

The flip side of providing a structure for owner-based land pooling is a loss of public control over redevelopment, other than what can be

accomplished through the conventional means of land use regulation. The removal of RFP-based disposition procedures, to cite one example, could result in less design and project control for the public authority. As a result, even in a land readjustment model, some municipalities may prefer to directly take title to properties, especially tax-delinquent properties that can be foreclosed on. For large-scale public-private redevelopment projects initiated by public entities whose ambitions are beyond the means of regulatory policy, the lack of broad-based control—as a public developer—would work against an expansive view of land readjustment's potential.

Resistance and Fractious Development Politics

No scheme that upsets the status quo in property relations is going to be immune to resistance from unwilling property owners. Apart from those who object to redevelopment for ideological reasons, opposing property interests might include owners who overpaid during market swells, owners with building densities greater than what current zoning would allow, owners with land uses that might not be permitted in a redevelopment program, owners of environmentally contaminated sites, and others with preferences for the status quo. Eminent domain challenges might also be brought by unwilling sellers because the end use does not necessarily provide a quantifiable or visible public good, especially if no significant public use is created as a result of the readjustment and redevelopment.

If the system described earlier as the Solidere model could have been put in place in New York to carry out the ambitious goals for West 42nd Street, would it have been more efficient, or would it have afforded the city a more modest risk exposure? Could the economic interest created have mediated the risk? The question is akin to asking whether some form of land readjustment could have been applied to the task of land assembly on West 42nd Street.

Several policy-related questions present themselves. Abstracting from legislative hurdles and judicial questions about whether a Solidere-type model would violate the takings provision of the U.S. Constitution, how would such a model alter the political risks of effectuating a transfer of land among private interests? Considering the political risks of failure, would a Solidere-type model decrease the probability of doing it wrong? Operating within the framework of a Solidere-type enterprise whose stock trades on a public exchange, would the type of disclosure required

by the Securities and Exchange Commission and demanded by private investors raise the standards of financial accountability for public-private ventures, which are uncommonly low in New York? Is there a way to generalize about whether the economic costs of land readjustment in a densely built urban commercial center would be less than those incurred via condemnation? In short, what does the Solidere model of privatizated redevelopment have going for it from a government risk-taking perspective?

No model of implementation can immunize an ambitious development scheme against civic opposition, litigation delays, budget uncertainties, conflicts of interest and business fraud, supply and demand in the real estate cycle, collapsed deals and renegotiations, partnership tensions, and negative media coverage. Nor can it eliminate the problems linked to uprooting tenants and pricing them out of neighborhoods experiencing gentrification. In short, the model does not redefine the characteristics of development risk taking: coping with uncertainty, managing unforeseen difficulties, and gambling on the future without knowing the outcome. The Solidere model is an intriguing and innovative experiment in public-private development, but it is not an insurance policy against failure. What it does guarantee, however, is a broader sharing of urban redevelopment's inevitable risks.

Through the structure of its capitalization, the Solidere model of a joint stock corporation can access diverse sources of funds, both private and public, from large and small investors without being dependent on a single deep-pocketed partner. A broader and deeper base of private investment capital might ease the implied need to fall back on the public treasury, though it is naive to believe that it would completely eliminate the political need for government to camouflage its risk taking. The constituencies to which the redevelopment entity is accountable would undoubtedly change. Under a Solidere-type model, the framework for long-term decision making is removed from the immediate political arena by a corporate-governance structure. Although this would not shield the corporation's public directors from being accountable to their voter constituencies, the avenues of influence and control for public-sector directors of a Solidere-type entity would differ and would likely be fewer, which is the reason for the key political reluctance to try any new model.

One of the most compelling characteristics of the Solidere model is its promise of ongoing direct economic benefit—dividends and capital appreciation of shares—to existing tenants, owners, and leaseholders.

Moreover, public markets are transparent and unambiguous in valuing economic interests, and they afford liquidity to investors, big and small. These benefits aside, the social situation on West 42nd Street (as well as most, if not all, U.S. big-city cores) differed so drastically from that in Beirut that it casts serious doubt on the likelihood of a Solidere-type model as an alternative to condemnation. Elected officials in New York evoked images of battle to describe their efforts to rid the street of crime, pornography, and moral despair, but the deterioration of that single street could not compare with the bombed-out landscape of what once was a flourishing and sophisticated Middle Eastern capital city. The extensive damage resulting from the Lebanese civil war created a strong political consensus to rebuild the rich heritage of Beirut, a pressing imperative absent from the fragmented political turf of West 42nd Street.

Could a Solidere-type model, with its promise of enhanced economic benefits, have furthered the development of a stronger political consensus and eliminated much of the litigation and many of the delays that marked the opposition to redevelopment of this contested urban area? A Solidere-type mechanism might have worked in theory, but the economics of property ownership and tenantry on West 42nd Street—profitable, if not praiseworthy, businesses—precluded an approach that did not mandate closure of existing businesses and compulsory sales of property. Would participation in a Solidere-type mechanism and retention of a portion of the redevelopment benefits through price appreciation of stock holdings have given existing property owners the incentive to remove the not-so-praiseworthy operations from their sites? Perhaps, though many small owners would have had to be inspired by the same motive within the same time frame. In the end, would city and state officials have been realistic if they had expected the vested interests on West 42nd Street to put aside proven short-term profits for the promise of capital gains sometime in the uncertain future? Not likely. In short, property shares in a Solidere-type arrangement would likely not have been sufficient to create a consensus on future action on West 42nd Street and thereby eliminate project-crippling opposition.

Conclusions

The strong conceptual appeal of a land readjustment scheme runs into practical and political problems when its application is considered in the

context of a large-scale urban redevelopment effort, as in the case of New York's West 42nd Street. The perceived difficulties arise from several sources: the typical ambitions of the public sector, the politics of development opposition, and the fragmented character of city property markets. These formidable obstacles are not ubiquitous, however; where they are absent, land readjustment schemes hold greater potential application. In particular, the model of a joint stock development corporation holds much promise in cities and states where the politics of development are less fractious and more consensual, where special interests have fewer means to successfully protest development, and where command-and-control decision making is more the norm. Solidere has been operating successfully for more than a decade, so a fruitful avenue for future work in this area would be an in-depth analysis of the performance of this approach from both an implementation and an economic perspective (see http://www.solidere.com).

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PART

V

Summary

CHAPTER

8

Law, Reciprocity, and Economic Incentives

YU-HUNG HONG

This chapter summarizes the institutional requirements for the type of land readjustment discussed in the preceding chapters, namely land readjustment in urban areas or at city fringes. The overarching issue is the problem of collective action. When parties involved in an urban renewal scheme fail to cooperate (are unable to exchange property rights for comprehensive land redevelopment), a city government wanting to redevelop the neighborhood will be unable to coordinate the reparceling of land for upgrading land uses and local infrastructure; private developers wanting to invest in the locale will be unable to find serviced land sites of suitable sizes and shapes; and property owners wanting to maximize the net worth of their real assets will be deprived of the right to do so. Everybody loses.

Using state power to force property transfer—expropriation—can be accomplished only at the expense of efficiency and equity. This book explores the extent to which land readjustment may be a solution for this problem. The focus has been on enabling institutions for instigating property exchanges through land readjustment. This concluding chapter highlights three institutional rules: law, reciprocity, and economic inducement. These factors are closely related to the four propositions suggested in chapter 1, and this concluding chapter also discusses the findings about the validity of these propositions. Because a limited number of cases have been examined, my statements cannot be generalized. Instead, the goal is to stimulate further research and debates on the topic.

Prospects of Land Readjustment

To recapitulate the potential of land readjustment as set out in chapter 1, this section states explicitly how the method may solve some land assembly problems. First, in theory, having a consensus on the exchange value of property before assembling land could avert holdouts. Holding out is a strategic behavior by which a property owner tries to be the last one to sell so as to increase bargaining power and negotiate a high price for the property. This strategy works only when offers for land acquisitions are negotiable. In land readjustment schemes, the exchange value of property is determined at the outset. Property owners decide as a group whether to accept the offer proposed by a land readjustment agency. When a collective decision is made, it does not matter when individual owners transfer their property because the exchange value is fixed and will be adjusted only for the time value of money. This resembles the take-it-or-leave-it technique in negotiation that experts employ when dealing with multiple parties whose preferences are diverse (Grossman and Hart 1980). Even if holdouts emerge, the agency, with the backing of the majority of landowners and the government, has reasonable cause to take the property in pursuing community good. Compensation of dissenting owners is based on the preset exchange value of the property.

Rule enforcement, however, may be politically difficult. As illustrated by most cases, the amount of compensation to dissenting owners is usually based on the opinion of an expert, such as a licensed appraiser, or on the decision of the court, rather than on the collectively determined property value. The possibility for an owner to receive higher compensation for involuntarily selling the property than for participating in land readjustment encourages holdouts. Is this an oversight of land readjustment organizers, or is there an inherent problem in keeping the property exchange value the same for both concurring and dissenting owners? More detailed research is needed in this area.

Second, unlike compulsory purchase, in land readjustment property owners are allowed to share the assembly and redevelopment values of land with the private developer and the government. By contributing a portion of their landholdings to the project and bearing the risks, owners should be entitled to a reasonable return on investment. One major complaint about the use of eminent domain is that a private developer may ask the government to take private properties at low costs and then retain the entire profit from assembling land. As opponents of eminent domain in the United States argue persistently, they are not against

progress and urban revitalization. Rather, they oppose being excluded from the decision-making processes, and they object to the government's use of its public power to acquire properties compulsorily to benefit a single person or entity. Put differently, issues related to the distribution of the benefits and costs of land redevelopment are at the core of the controversy. Land readjustment, which invites affected property owners to share both the rights and the responsibilities of the project, may minimize this problem better than eminent domain.

Since the land developer does not have to raise the initial capital for financing property acquisitions, it also seems fair that the developer give up a portion of the development surplus. This in turn lowers the interest costs and the risks of undertaking land investment. Municipalities can also benefit by shedding some financial burden by requiring the land readjustment project to pay the costs of providing local infrastructure, as long as doing so will not impede owners' incentives to participate in the scheme. Land readjustment projects, when implemented properly, can create win-win situations.

Unfortunately, land readjustment does not solve the horizontal equity concern. The owners of properties abutting a land readjustment project may see the value of their homes rise because of the improvements in roads, parks, and other public facilities in the neighboring community. Yet, since the land is not included in the project, those owners have not had to give up any land to pay for the public goods. As a result, they can become free riders. Conversely, if a land readjustment project imposes negative externalities on property owners in an adjacent neighborhood, the scheme also does not have built-in mechanisms to compensate them. If issues related to externalities are unchecked, property owners at the fringe of the land readjustment project may refuse to join.

One way to mediate the free-rider problem is to ask adjacent areas to reimburse the land readjustment district for a percentage of local infrastructure costs, assuming that the transaction costs associated with this interjurisdiction transfer do not outweigh the benefits. If the public good involves a road network whose effects may extend to several jurisdictions, the entire burden of improving that transportation network should not fall on the residents in the land readjustment district. Instead, the land readjustment agency should ask the state government to undertake the construction using general funds collected from benefiting communities. For other facilities such as parking, free permits are issued only to local residents. Similarly, fees may be imposed on nonresidents for

using local libraries or other public facilities. This way, externalities created by a land readjustment project can be internalized to some extent.

Third, instigated property exchange through land readjustment may reduce, though not totally mediate, the problem of compensating owners for the loss of sentimental value of the property. Because land readjustment enables owners to return to land parcels located as close to the original sites as possible, they can build new houses that resemble the old ones. Surely, the new structure will never be the same as the former home. Yet, this alternative may represent the best possible solution, given the circumstance. At least, owners are not permanently removed from their old neighborhood with no compensation for the sentimental value of their property. To assess the extent to which the potential of land readjustment could be maximized, it is important to understand the institutional requirements for adopting this method which are related to the four propositions examined here.

Private Property Protection and Land Readjustment

The first proposition raised in chapter 1 is that land readjustment will most likely be adopted in a property rights regime in which protection of private property is strong. As illustrated by the majority of the cases in this book, this proposition seems correct. Private property protectionism in the United States is often perceived as the major hurdle for assembling land in general and for introducing land readjustment to policy makers in particular. Yet, in the case studies, strict constitutional or political restrictions on the state's power to interfere with private property is one of the most important reasons for using land readjustment. Legal and political constraints on the use of eminent domain, exactions, and planning regulations have induced local governments to experiment with land readjustment. In Germany and Israel, the courts have continuously reinterpreted the law related to the power of the state to take private property for public purposes, considerably narrowing the range of permissible public uses for the exercise of eminent domain. In Japan, local governments have been reluctant to expropriate land from owners who refuse to participate in land readjustment, even though the consent of owners is not required when planning goals are at stake. Local governments do not want to offend rural landowners who are politically powerful.

In the face of rapid urbanization, municipalities that cannot afford to pay huge compensation to property owners for acquiring land to build

public facilities have no other options but to use land readjustment to facilitate and finance local infrastructure investment. As the authors have argued, if land readjustment were not practiced in their countries, many underdeveloped or undeveloped lands would have been abandoned. For these countries, land readjustment is a viable, though not perfect, approach to unifying and then reallocating the property rights of land in a neighborhood where redevelopment is necessary. More important, land readjustment helps local governments accomplish urban renewal goals by staying within the legal restrictions on public interference with private property set forth by their constitutions.

Indeed, compared to eminent domain, land readjustment may be considered a more friendly approach to adjusting property relations in land assembly. Land readjustment opens the decision-making process to all affected parties, averting neighborhood gentrification and inviting input on the redevelopment plan from all interested parties. The decision-making process is inclusive, and the guiding principle of property exchange can also ensure an equitable distribution of costs and benefits among stakeholders.

These merits of land readjustment notwithstanding, it is unrealistic to expect this method to be carried out expeditiously and effortlessly. Land readjustment organizing entails both time and financial commitment from all involved parties as well as skillful execution of the power of persuasion. Members who benefit the most from the initiative will need to invest their time and energy to persuade other members to consent to the proposal. As illustrated in chapters 4 and 6, community leaders who are willing to take active roles in convincing other owners to join the land readjustment project are required. Based on international experiences in organizing land readjustment, one thing is clear: This approach does not save time in assembling land for redevelopment. Rather, land readjustment improves the efficiency and equity of land assembly. As Alterman argues in chapter 3, if land readjustment can produce more efficient and equitable outcomes than can compulsory purchase, these benefits may justify the extra time spent on organizing this land-assembly method.

Transformation of property relations has never been without controversies. From the restitution of private ownership in some former communist countries to the search for a balanced approach to upholding private property rights and public interests in the United States, these processes have always been conflict-ridden (Jacobs 2004). Thus, the question for policy makers about various land assembly methods is this: Among all options, which approach will be the least coercive and

controversial? Land readjustment may fare well in comparison with other methods.

The Necessity of Land Readjustment Legislation

The second proposition in chapter 1 is that land readjustment requires special laws. It should be no surprise that the implementation of land readjustment in all the cases is aided by special legislation. Most of the countries have comprehensive land readjustment rules that are fully integrated into other land-related legislation. Only in China where the approach is still in its experimental stage were the legal rules for readjusting land established more on an ad hoc basis (chapter 6).

What is not obvious is that the land readjustment legislation is believed to be a mechanism for inducing cooperation. Provisions in these laws are mostly about setting up legal frameworks for minimizing the transaction costs of negotiation between landowners and the land readjustment agency. In Germany, Israel, and The Netherlands, these time-proven legal guidelines have functioned so well that even projects with unanimous support from landowners have followed them. The procedure for dealing with dissenting owners, though important, is only one provision among many others. It appears that the land readjustment laws were never intended to compel property owners' participation.

It is important to maintain this perspective in designing legal institutions for land readjustment. The mistakes that were made in the use of eminent domain and compulsory purchase should not be repeated. In fact, the original reason for this state power was to resolve holdout problems only when they arose. Unfortunately, some governments might have relied too much on their power to take private property for public uses or for other purposes that were not in accord with their constitutions. When governments abused the power to take private possessions, property owners, or interest groups that tried to protect private property, challenged the authority in courts. These actions and reactions led to many bitter legal battles between property owners and the government, which evolved into a vicious circle that might have negatively affected the possibility of cooperation between landowners and the government in subsequent land assembly initiatives, as described by Sagalyn in chapter 7. It is therefore crucial to remember that law is important for land readjustment only to the extent that it assists the negotiation

between involved parties. It should never give the state the sovereign power to force property transfer against the free will of the owner.

Trust and Instigated Property Exchange

Regarding informal institutions for engendering collective action in land readjustment schemes, the Japanese and Dutch cases are especially telling. They seem to reaffirm the theory of reciprocity on which the third proposition is founded (Axelrod 1984; Kahan 2005). On one hand, if the parties involved in a land readjustment scheme reciprocate each other's goodwill and competence, property exchanges can be facilitated by trust relations. On the other hand, if the parties have little confidence in each other's integrity and honesty because of bad reputation or past experience, they may decide not to cooperate. As Sorensen (chapter 4) argues, cooperation in land readjustment or its lack in Japan is not totally dictated by preexisting social norms. Rather, as Needham (chapter 5) suggests about The Netherlands, it is determined by repeated interactions between involved parties that allow them to learn about the integrity and capability of their counterparts.

According to the principle of reciprocity, a confrontational strategy employed by a land readjustment agency in negotiating with owners for property transfers will be matched with hostility and noncompliance. For example, the Japanese government's invention of flexible senbiki in the 1980s was to facilitate land readjustment. One method was to threaten landowners that their district would be downzoned if they failed to form a land readjustment organizing committee. Although the government never intended to carry out the threat, some landowners may have perceived this approach as confrontational, thereby reacting to the government policy with skepticism. Thus, the use of flexible senbiki failed to increase the number of land readjustment projects because of local opposition.

The Dutch experience also confirmed the principle of reciprocity, but with a very different outcome. Unlike the Japanese case, past collaborations between landowners and the government in developing rural land nourished trust relations that extended to facilitating land redevelopment in the urban area. The good performance in helping farmers improve the productivity of their lands earned the government the reputation of being trustworthy and competent to deliver on its promises. In The Netherlands, government involvement in pooling and servicing land

are considered to be positive intervention that expedites the provision of local infrastructure. Knowing that the government can supply serviced land in a timely and cost-effective manner, developers are willing to surrender their landholdings for comprehensive redevelopment. The successful cooperation has gradually been institutionalized into trust that encourages developers and the government to work together in future projects. Repeated interactions reinforce mutual trust, thereby lowering the transaction costs of negotiation in collaborations. This long-term investment in social capital has brought handsome returns in terms of reduced transaction costs associated with land development in The Netherlands (Needham and De Kam 2004).

In many ways, land readjustment is designed to encourage involved parties to learn to trust each other through repeated interactions. Forming a land readjustment agency whose members include landowners and renters (or their representatives), public officials, and land developers creates an environment in which these parties can interact. By learning the perspectives of their counterparts through ongoing discourse, the parties better understand the proposals and counterproposals put forward by the different players, thereby enabling compromise when disagreements emerge. This arrangement differs significantly from the use of eminent domain, in which dissenting parties are either bought out or forced out. There are no further interactions between landowners and the land assembler. Without the prospect of future dealings, rational individuals have no incentive other than maximizing short-term gains, thus rendering cooperation difficult.

This is not to say that collective action automatically emerges when landowners form an entity for organizing land readjustment. In chapters 4 and 7, Sorensen and Sagalyn raise the issues of power relations within a community. A neighborhood always comprises small and large landowners, lessees and lessors, and merchants of varying sizes, all of whom have interests that may not be in accord with one another. When involved parties cannot reconcile their different interests, the more powerful members of the group may impose their will on those who are less influential. That is the case in Japan, where public officials and village leaders or large landowners may in some instances have coerced other members to consent to land readjustment projects. Coercion may in turn undermine the incentive for other landowners to participate in similar projects in the future. Designing institutional rules to prevent asymmetrical power relations in land readjustment organizing is a topic worthy of future investigation.

Economic Inducement

Besides law and reciprocity, economic incentives are also critical for engendering collective action to instigate property exchange through land readjustment. There must be a positive financial return for property owners, the municipality, and private developers in order to solicit their participation. If their financial positions will not be enhanced by joining the project, no legal and/or informal institutions will provide enough incentive for them to cooperate with one another.

A crucial point is the allocation of the land value increment between landowners and the municipality in situations where the latter will also play the role of developer. As proposed in chapter 1, the fourth proposition states that municipalities may face an inherent tradeoff in organizing land readjustment. On one hand, the major reason for local government to initiate land readjustment is to obtain land at a low cost to build infrastructure. This can be accomplished by deducting land from the holdings of participating owners when all sites are assembled. On the other hand, the government must obtain sufficient support from landowners to minimize the risk of legal or political opposition. Hence, the government must return as much land as possible to landowners to maintain their interest in voluntarily joining the scheme. Because the total amount of land is limited, the government may not be able to attain the two goals simultaneously.

One way to mediate this tradeoff is to organize land readjustment when real estate markets are in an upswing. When land prices are expected to increase, landowners may be willing to receive less land back because they anticipate the value of that land to be higher when the project is completed. The problem is that local land readjustment agencies usually have little control over market conditions. In a municipality where local infrastructure is severely undersupplied, the local government may not have the luxury of waiting for favorable market conditions for implementing land readjustment.

Another method is upzoning. In most cases described in this book, the government allows agencies to develop land at higher densities to increase the economic incentive for conducting land readjustment. In the vertical land readjustment scheme in Hong Kong described by Li and Li (chapter 6), the involved developer increased the development density of a single site, thereby making it possible to build additional apartment units for sale. Sales revenues were used to defray project costs, and the surplus turned into the profit for the developer. The participating

property owners were entitled to a similar apartment on the same floor of the new building. They also received a portion of the developer's profit.

Although vertical land readjustment schemes are financially attractive to both property owners and developers, this format may have two limitations. First, it may not work in suburban neighborhoods in some countries, such as the United States, where the dominant mode of development is low density. In the Hong Kong case, application of vertical land readjustment succeeded largely because of people's willingness to live in multistory buildings. This willingness will most likely be found in inner cities where densities of development are high and on urban fringes where rural land is converted into urban use.

Second, in applying this method, government needs to be careful not to hand over the entire redevelopment value to private developers and property owners. Doing so would mean windfall profits (or planning gain) for these parties, since neither the property owners nor the developer has contributed to the increase in development rights. Similarly, costs of internalizing negative externalities should be borne by the project. Property taxes or other levy schemes should allow the government to recapture the publicly created land value or to recover the costs of providing extra public goods. Despite these two qualifications, this innovative application of the land readjustment ideas indicates that the method can be structured in many flexible ways according to varying circumstances, making land assembly financially viable and attractive to all involved entities.

Conclusions

Land readjustment emphasizes community participation much more than other conventional techniques do. At least in principle, the first requirement of organizing land readjustment is to seek the legal or political consent of affected property owners. Unlike public hearings for government land acquisition at which officials normally inform, not consult, the community about the undertaking, a land readjustment project cannot move forward if the majority of property owners refuse to participate. Because there is a real consequence of failing to enlist community support, the organizer takes public consultation seriously. At the beginning of a land readjustment initiative in Japan, local planners usually spend thousands of labor hours convincing landowners to join the plan.

For a project as controversial as land assembly, which affects private property rights, there is no shortcut. The only way to avert discord is to confer with the affected parties in a genuine and respectful way. Opening up the process does not mean that all will work together toward common goals. There will be disagreements; but at least the involved parties will be encouraged to reconcile their differences through social discourse. Secrecy and deception followed by coercion will make things worse.

In practice, many countries may have treated land readjustment as just another planning tool to achieve policy goals. Yet, land readjustment can do more than that; it can promote active community participation in public affairs. Only through the broad-based involvement of all interested parties can the controversy of land assembly be minimized.

Ideally, the analysis of land readjustment experiences in this book will encourage readers to contemplate instigated property exchange as a possibility for land assembly. Like all tools, the approach is not without complications. There are numerous books, academic articles, and user manuals, all in English, that policy makers and analysts can refer to if they think that this land assembly method might be tenable. This book, which is the first to analyze the nontechnical issues of land readjustment, contributes to the knowledge of necessary institutions for land readjustment organizing. This is only the beginning of this research. More work is needed to identify additional enabling institutions for instigated property exchange and to understand how these institutions interact with one another to form an environment that nourishes collective action in land assembly and redevelopment.

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Analyzing Land Readjustment

A main theme of this book is land readjustment's virtues for solving problems of land assembly for urban development and redevelopment. It makes a major contribution to the subject in two ways. First, by linking land readjustment to a larger theoretical literature, . . . and second, by offering insightful, international case studies of the practical advantages and difficulties of using land readjustment as a key mechanism for assembling land and/or rights to land for development. The studies include land readjustment experiences in Germany, Japan, The Netherlands, and Israel, and also explore the potential for urban redevelopment in China and the United States.

Training in the basic principles of land readjustment should be part of the education of every city planner, real estate development professional, and other individuals engaged in making policy for land and urban development. As a text and reference, this volume will contribute to more informed and wider applications of land readjustment in complex situations that require solutions more efficient and equitable than those provided by any other instrument now available.

—William A. Doebele,
adapted from the Foreword

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