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EMPIRE BUILDING AND FISCAL ILLUSION?
AN EMPIRICAL STUDY OF GOVERNMENT OFFICIAL BEHAVIORS IN TAKINGS

Yun-chien Chang*

ABSTRACT

There is an ongoing debate in the takings literature as to whether government officials minimize takings compensation or pay compensation to the extent that it maximizes their political interests. Until now there has been no empirical study of this question. Also, two methods of assessing takings compensation—one implemented by several states, the other proposed by scholars and has been implemented in a foreign jurisdiction—have been found to award inaccurate takings compensations to condemnees. There has been no empirical research, however, on a third assessment method, implemented in Taiwan.

Using data on takings compensation and market value in Taiwan from 2000 to 2007, I empirically examined whether the Taiwanese assessment method (in which takings compensations are pre-determined by annual governmental assessments of property value) produces accurate compensation, and whether government officials minimize compensation or maximize their political interests. I found that about two-thirds of the takings compensations in Taiwan were below a reasonable proxy for a lower limit on market value and, therefore, inaccurate. Government officials could further reduce compensation payments but did not choose to do so. Condemnees were under-compensated because the more politically influential landowners have pressured the government to distort governmental assessments of property value to reduce their own tax burdens. Political interests are government officials’ main concern.

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I. INTRODUCTION

Rational persons maximize their self-interests. What kind of self-interests do government officials maximize, when dealing with takings compensation? The literature on this subject provides two different views. The fiscal illusion theory portrays government officials as minimizers of takings compensation, if not maximizers of discretionary budgets; government officials are, therefore, empire builders and fiscal illusionists. Daryl Levinson has argued instead that government officials maximize their political interests, for example, by trying to win votes in order to get re-elected.

No empirical study, however, has examined whether government officials, when dealing with takings compensation, minimize compensation payments or maximize their political interests. As I discussed in another paper, in the U.S. context, even with comprehensive data on sale prices and condemnation compensations, it is difficult to

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1 See, e.g., RICHARD POSNER, ECONOMIC ANALYSIS OF LAW 3-4 (5th ed. 1998).
4 This Article uses “government officials” and “the government” interchangeably. I define “government officials” as those decision-making officials who are elected or directly supervised by elected officials. In Taiwan’s context, the government officials are local government mayors (elected) and high-ranking officials appointed by the mayors.
6 Fiscal illusion means that unless the government is required to pay compensation for condemned properties, it will think of the takings as costless.
ascertain the preference of government officials. In this Article, therefore, I fill the empirical gap by conducting a case study of Taiwan’s takings compensation practices starting in 1977. In Taiwan, takings compensation is determined by official land value (which systematically deviates from market value) plus certain bonus compensation at local governments’ discretion. By analyzing how local governments set official land value and the bonus compensation, I am able to ascertain whether local governments maximize political interests or minimize takings compensation.

Another objective of this Article is to explore whether Taiwan’s post-1977 regime has produced accurate takings compensation. Previous empirical studies have found that the American assessment method (ex post assessment by the government) has failed to award accurate compensation to condemnees. Some condemnees received much less than the fair market value of their properties, while others got much more. In response to this inaccuracy problem, Saul Levmore and Abraham Bell & Gideon Parchomovsky have proposed an alternative assessment method, ex ante assessments by landowners themselves, to determine takings compensation. I have argued that their models, when implemented, are unlikely to produce accurate compensation.

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9 In this Article, I refer to compensations as “accurate” when they are equal to government-assessed market value, a reasonable proxy for a lower limit on market value. Accordingly, “under-compensations” (or “over-compensations”) means compensations lower (or higher) than government-assessed market value.

10 Some papers compare estimated fair market value with actual compensation, see, e.g., Chang, supra note 8 (finding that in New York City, from 1990 to 2002, more than 90% of the condemnees who settle with the condemnor received inaccurate compensations); Terrence M. Claretie et. al., Residential Properties Taken Under Eminent Domain: Do Government Appraisers Track Market Values?, 26 J. REAL ESTATE RESEARCH 317 (2004)(finding that in Clark County, Nevada, the government compensated landowners 17% above market value); Patricia Munch, An Economic Analysis of Eminent Domain, 84 J. POL. ECON. 473 (1976)(finding that in Chicago, Illinois, from 1962 to 1970, low-valued properties received less than market value and high-valued properties received more than market value).

Some papers compare assessed value (for tax purposes or compensation purposes) with actual compensation, see, e.g., Nicole Stelle Garnett, The Neglected Political Economy of Eminent Domain, 105 Mich. L. REV. 101 (2006)(finding that in St. Joseph County, IN, the total compensation—sale price plus relocation assistance—for condemnation settlements is on average 157% of the average appraised value of the property); Curtis J. Burger & Patrick J. Rohan, The Nassau County Study: An Empirical Look Into the Practices of Condemnation, 67 COLUM. L. REV. 430, 439-40 (1967)(finding that in Nassau County, NY, from 1960 to 1964, in 84% of cases, the compensation condemnees received was less than the lower one of the two assessed values; in 57% of the cases, the compensation was lower than 90% of the assessed value).


In searching for more accurate alternative assessment methods, a combination of the two above—ex ante assessments by the government—seems to be the “natural” choice. This assessment method is exactly what Taiwan has implemented since 1977. To my knowledge, Taiwan is the only country that has adopted this method. An empirical study gauging the accuracy of Taiwan’s compensation to condemnees could thus inform American policymakers whether the ex ante assessments by the government method is a desirable reform option.

Weaving the two themes of this Article together, I will first use data from 2000 to 2007 to examine whether in Taiwan ex ante governmental assessments of takings compensation were accurate. I discover that about two-thirds of the condemnation compensations were below “government-assessed market value,” a reasonable proxy for a lower limit on market value; takings compensations were, therefore, inaccurate. In order to explain this empirical finding, I refer to the fiscal illusion theory and Daryl Levinson’s political interest theory. The fiscal illusion theory cannot explain my findings, because although Taiwanese local governments could maximize their discretionary budgets by raising governmental assessment of land value (thereby increasing tax revenues), they have failed to do so. Moreover, local governments in Taiwan voluntarily increase their payments of takings compensation, again contrary to the predictions of the fiscal illusion theory.

By contrast, Levinson’s theory, which states that local politicians rely on calculations of political costs and benefits when making decisions, neatly captures the incentives guiding the behaviors of local Taiwanese politicians. Bowing to pressure from politically influential landowners, local politicians in Taiwan intentionally

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13 This combination takes the “ex ante” element from the scholar-proposed models and the “government assessment” element from the current U.S. regime. Another combination, ex post self-assessments by landowners, in my knowledge, has not been implemented by any jurisdiction, for good reasons. See the discussion of both methods in Yun-chien Chang, A Framework of Takings Compensation Assessment (New York University Law and Economics Working Papers No.08-31, 2008), available at http://ssrn.com/author=951382 (arguing that empirically the predictions of these models are not borne out by evidence).

14 AJ van der Walt, in his comparative analysis of constitutional property clauses, looked into the constitutions of Australia, Austria, Canada, Germany, Guyana, India, Ireland, Jamaica, Japan, Malaysia, Mauritius, Namibia, South Africa, Switzerland, Trinidad and Tobago, United States of America, and Zimbabwe. In my reading, none of these countries seems to adopt ex ante assessment by the government. However, a few countries, such as Zimbabwe, Jamaica, and Ireland, authorize laws to stipulate how to compensate landowners. Those laws could adopt ex ante assessment by the government, but van der Walt’s book did not survey those laws. See AJ VAN DER WALT, CONSTITUTIONAL PROPERTY CLAUSE: A COMPARATIVE ANALYSIS 58-60, 81-82, 92, 114-16, 150-51, 183, 219-21, 240-41, 253-54, 262-63, 273, 304-05, 315-16, 343-48, 372-73, 394-95, 440-41,489-92 (1999).
maintained official land value at below the government-assessed market value, so as to reduce big landowners’ tax burden. Takings compensation, determined by the same official land value, thus usually fell below the government-assessed market value. Condemnees, less politically influential than the powerful landowners, were unable to persuade politicians to raise government assessments of land value. Furthermore, political interest theory can help explain why some condemnees received more than government-assessed market value; the theory allows that it is sometimes in government officials’ political interests to award additional compensations.

This Article is structured as follows: Part II outlines Taiwan’s takings compensation and property value assessment regime. Part III describes the methodology of the paper. Part IV summarizes the pertinent data. Part V reports the findings. Part VI examines whether the fiscal illusion theory or the political interest theory most aptly explains Taiwanese government officials’ behaviors. Part VII discusses whether the conclusions drawn from the case study on Taiwan are applicable in the U.S. context. Part VIII concludes.

II. TAIWAN’S REGIME: 1977 TO THE PRESENT

In 1977, Taiwan adopted its current assessment method, ex ante assessment by the government. Equalization of Land Rights Act requires local governments to investigate real land transaction prices every year. On the basis of these transaction prices, local governments then divide their jurisdictions into thousands of “land value districts,” each containing dozens of land parcels. The median of these investigated prices in a land value district is known as the “preliminary district land value.”

The preliminary district land values are then sent to the Land Evaluation Committee in the jurisdiction for value adjustment. The adjusted values, usually lower

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16 PINGJUEN DIQUEN TIAOLI [Equalization of Land Rights Act] (Taiwan).
17 Local government employees in charge of assessing have to pass the “land use specialty” exam before being hired into the public sector.
18 There is no requirement stipulating how large a district should be, nor any requirement mandating equal size among districts. In 2002, Taipei City, which is as large as 24,250,411 square feet, is divided into 415,631 pieces of lands. There are 2,743 land value districts (on average, 152 pieces of land per district; 8,841 square feet per district).
19 See Rules on Land Value Assessment art.21 (Taiwan).
than the preliminary district land value, become the Announced Current Land Value (ACLV) of the land value districts. Land parcels within a district have the same ACLV, unless they are adjacent to busy streets. Note that to be exact ACLV is measured in value per square meter ($/m^2); the “official land value” of each land parcel is its ACLV times its land area (for brevity’s sake, hereinafter, I often use ACLV to represent official land value). In sum, every land parcel in Taiwan has an annually-updated official land value.

Official land value serves as the basis for calculating not only the takings compensation but also the “land value increment tax.” Since 2000, another law, the Land Condemnation Act, has given local governments the discretion, when announcing ACLV on January 1 of each year, to determine one or more annual “extra proportion of official land value” (hereinafter “extra proportion”) as additional compensation to all condemnees in the jurisdiction that year. It should also be noted that the land value increment tax is not a property tax, which is determined by another official value, the Publicly Announced Land Value (PALV), announced every three years.

III. METHODOLOGY

Ideally, to determine whether local governments over- or under-compensate condemnees, I have to compare actual compensations of condemned properties with their fair market value. I have, however, neither individual data on condemnation compensations nor data on real transaction prices that I can use in hedonic regression

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21 ACLV of land parcels which are adjacent to busy streets will be further adjusted by a pre-set formula, which does not take into consideration the values of the buildings on the land parcels. See Rules on Land Value Assessment art.23 (Taiwan).
22 Equalization of Land Rights Act art. 10, 38 (Taiwan).
23 The discretion lies in deciding whether to award extra proportion. Once the amount of extra proportion is announced, it has to be awarded to every condemnee in the jurisdiction that year.
24 TUDI ZHENGSHOU TIAOLI [Land Condemnation Act] art. 30 (Taiwan).
26 Strictly speaking, the tax base of land value increment tax is the difference between “the reported transaction price of the current sale” minus “the reported transaction price of the previous sale.” The original rationale for announcing ACLV is to give landowners a benchmark to transact and to report transaction price. Later on more laws, including several tax laws, were enacted to encourage landowners to report ACLV as the transaction price. So in practice the reported transaction price, the real tax base, approximates the ACLV.
models to estimate market value.²⁷ I do have data on “stipulated compensation” and “government-assessed market value” that can serve as proxy for condemnation compensation and market value respectively. Given that the major goals²⁸ of this paper are just to ascertain the pattern and trend of condemnation compensations and to examine the behavioral models of government officials in charge of takings, the following sections justify the use of proxy data and discuss the potential effects of using proxy data on my findings.

Figure 1 is a diagram of the relationship of the key terms used in this paper and their short definitions.

A. Government-assessed Market Value as Proxy for Fair Market Value

Real transaction prices in Taiwan are generally kept secret.²⁹ This negates the possibility of using hedonic regression models to estimate market value, because sufficient number of transactions is necessary. In addition, so far there is no public record of which properties are condemned; thus, even if I acquire enough number of transactions to run hedonic regression models, I would not be able to estimate market value for condemned properties.

Hence, I must rely on the market value estimated by local governments (hereinafter “government-assessed market value”) as a proxy for real market value.³⁰ As noted in Part II, government-assessed market value is preliminary district land value, which is the median of the investigated transaction prices. Using such

²⁷ “At its simplest, a hedonic equation is a regression of expenditures (rents or values) on housing characteristics. The independent variables represent the individual characteristics of the dwelling, and the regression coefficients may be transferred into estimates of the implicit prices of these characteristics.” Stephen Malpezzi, Hedonic Pricing Models: A Selected and Applied Review, in HOUSING ECONOMICS AND PUBLIC POLICY 67, 68 (Kenneth Gibb & Anthony O’Sullivan eds., 2002).
²⁸ This paper does not plan to ascertain the exact magnitude of under- or over-compensation. This would be an important research project if one proposes to redress under-compensation by increasing official assessments. In this case, the accuracy of data is a priority.
³⁰ Landowners in Taiwan in practice report their transaction prices as ACLV, so local governments do not know most actual transaction prices. They only investigated a few of the transactions for assessing PALV and ACLV.

The real estate broker business in Taiwan is very competitive (and many people buy and sell land without brokers). A few large brokerage companies use their own data to build hedonic models, but these models are considered to be trade secrets. Interview with Yi-chuan Chang, a real estate expert in Taiwan, in Taipei, Taiwan (Jun. 8, 2006).
³⁰ The Taiwanese government calls preliminary district land value simply “market value.” In this paper, I will use the term “government-assessed market value” instead, to distinguish it from the real market value.
proxy will not be an issue when I discuss the behavioral models of government officials in Part VI. After all, government officials do not know the real market value of properties; they only know the government-assessed market value and use it as the benchmark value to determine whether they over- or under-compensate.

However, when it comes to ascertaining whether condemnees have been compensated above or below the real market value from 2000 to 2007, using government-assessed market value as a proxy for the real market value is indeed imperfect for several reasons. First, the assessment of market value is based only on land parcels transacted in the previous year and land parcels not transacted may be more or less valuable than those in the same districts that are transacted. Second, the samples of real transactions are not large enough — some land value districts have to use transaction prices extrapolated from neighboring districts. Third, during the assessment procedure, government employees in charge of assessing government-assessed market value have incentives to, and do indeed, discount the investigated transaction prices for political reasons. If government employees submit the real, high transaction prices, ACLV and PALV (which determine landowners’ tax burdens) will probably rise (otherwise, the difference between market value and ACLV/PALV will be large). The politically influential landowners (more on this later) will then blame the government employees for raising the tax; to avoid the political pressure, the government employees will discount the investigated

31 No evidence shows that either local government employees and officials or the officials in the national government agency in charge of land assessment affairs, the Department of Land Administration in the Ministry of the Interior (DLA-MOI), have incentives to increase the government-assessed market value or to manipulate it in some other way.

32 According to a research conducted in 1994 using samples from 16 towns, 61% of the land value districts have no investigated transactions, 27% of the land value districts have between one to three investigated transactions, and 11% of the land value districts have more than four investigated transactions. See Shu-hui Huang, 2001, Knowing Land Value Better to Enforce Equalization of Land Rights, 2001, p.79 (Chinese) (citing another research).

33 Sometimes government employees will discount investigated prices more than once, in order to meet the “policy goals” set by their supervisors or the requirements set by the Committee. See Yu, supra note 20, at 109.

34 After 1977, the government-assessed PALV and the landowner-reported DLV are still used to levy land value tax, as in 1954-1977.

35 For example, suppose ACLV last year is $60. Investigated transaction price is actually $150. If $150 is used as government-assessed market value and ACLV this year does not rise, the ACLV percentage becomes 40%, which is very low. If government employees discount the investigated transaction price and announce government-assessed market value as $100, even without increasing ACLV, the ACLV percentage is 60%, not as drastic as the “real ACLV percentage (40%).”
The first imperfection should not be a huge concern. In demarcating land value districts, local governments are required to group together contiguous land parcels whose market values are similar, if not homogenous. The standard deviation of market values in a land value district should not be very large. Thus, even if the investigated prices are not representative, the margin of errors should not be very large. Moreover, no evidence or theory suggests that investigated prices tend to be higher or lower than the real median market value in a land value district; similarly, no evidence or theory suggests that standard deviation of market value in a land value district is large.

The second imperfection could be a problem, but there is no firm reason to believe that it tends to make the proxy over- or under-estimating real market value. By contrast, the third imperfection clearly indicates that the proxy under-estimates the real market value. Summing up the effects of these three imperfections, I think the government-assessed market value tends to be lower than the real market value. Therefore, government-assessed market value should better be described as “a reasonable proxy for a lower limit on real market value.”

Using government-assessed market value as the proxy value will be problematic if I find consistent over-compensation, because I do not know whether condemnation compensations are just higher than the “lower limit” on real market value or higher than (even the higher limit on) real market value. As it turns out, the proxy data indicate that the distribution of compensation is skewed toward under-compensation (see Figure 4 and Figure 6). Thus, using government-assessed market value as the proxy value should not lead to spurious general findings.

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36 See Li, supra note 32; See Yu, supra note 20, at 97-99.
37 I thank the anonymous referee at JELS for this suggestion.
38 For example, suppose the real market value is $100 and the compensation awarded is $90. If government-assessed market value is lower than the real market value, say, $80, an observer will conclude that the condemnee is over-compensated, even though the condemnee actually receives $10 less than the real market value.

Alternately, suppose the real market value is $100 and the compensation is $105. If government-assessed market value overstated the real market value to be $120, an observer will conclude that the condemnee is under-compensated, even if she actually obtains $5 more than real market value in compensation.

Therefore, to ensure that the under-compensation conclusion is not spurious, it is only necessary to attend to whether the government-assessed market value tends to over-assess the real market value.
39 Thus, even if the first and second imperfections lead government-assessed market value to under-estimate market value, it would not be a problem.
B. Stipulated Compensation as Proxy for Actual Compensation

Taiwanese laws stipulate that condemnees be compensated with ACLV plus extra proportion. ACLV is the official land value for each land. Land Evaluation Committee adjusts government-assessed market value to determine ACLV. Extra proportion is the additional fraction of ACLV given to condemnees at local governments’ discretion. For instance, an extra proportion of 30% awards condemnees 130% of ACLV as total takings compensation.40

I prefer to present how well condemnees are compensated by showing “compensation percentages,” ideally calculated by dividing actual condemnation compensation by market value. I do not have data on actual compensation, however. Fortunately, I can calculate a proxy compensation percentage, which equals “stipulated compensation”41 divided by government-assessed market value, from available data on extra proportion and “ACLV percentage,” which is ACLV divided by government-assessed market value.42 In other words,

\[
\text{Compensation percentage} = \frac{\text{Stipulated compensation}}{\text{government-assessed market value}} = \text{ACLV percentage} \times (\text{extra proportion} + 100\%) = \left(\frac{\text{ACLV}}{\text{government-assessed market value}}\right) \times (\text{extra proportion} + 100\%)
\]

I will use this type of compensation percentage to measure whether condemnation compensations are below or above government-assessed market value, a proxy for a lower limit on market value. A compensation percentage below (above) 100% means that the stipulated compensation is below (above) the government-assessed market value.

The following sub-sections discuss how local governments compute ACLV percentages, how I use the extra proportion data to present the result efficiently, and how these complexities may affect my findings.

1. ACLV Percentage

How are ACLV percentages calculated? First, a borough under a city calculates the borough’s ACLV percentage by adding up the ACLV percentages in every land

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40 Extra proportion is usually determined in intervals 10 percent. That is, the extra proportion could be 10%, 20%, 30%,...100%... There are a few exceptions.
41 I call the compensation legally due “stipulated compensation.”
42 ACLV percentage can also represent taxable property value divided by real market value.
value district in the borough and then dividing the sum by the number of land value districts, regardless of how many land parcels there are in the districts. A city, then, sums up “the ACLV percentage of a borough times the number of land value districts in the borough” and divides it by the total number of land value districts in the city.43 In other words, in calculating ACLV percentage, the boroughs calculate un-weighted average, while the city calculates the weighted average. In Taipei City, the capital of Taiwan, the ACLV percentage is usually the same across land value districts, so the above calculation method does not distort the statistics.44 In jurisdictions other than Taipei City, however, percentages may vary.45

The variation of ACLV percentages within a jurisdiction could be a problem for the interpretation of my findings. If the ACLV percentage of a condemned plot is significantly higher or lower than the jurisdictional average, condemnees are compensated better or worse than their compensation percentages show. Given the size of my dataset, if the ACLV percentage variation is random, the difference should roughly cancel itself out. In addition, if the ACLV percentages of land value districts where there will be numerous condemnations are intentionally deflated below the jurisdiction average, it will not contradict my general finding that a majority of Taiwanese condemnees were under-compensated and takings assessments are inaccurate.

On the other hand, if the ACLV percentages in the condemnation-active districts are systematically above jurisdictional average, it weakens my claim that approximately 60% of Taiwanese condemnees were under-compensated. It continues to lend support to the claim that takings assessments are inaccurate, unless government officials have been manipulating ACLV percentage in such districts to make condemned land’s compensation percentage exactly 100%—this seems unlikely.46 Nevertheless, neither of the theories I will discuss in Part VI would predict that government officials consistently keep the ACLV percentages of condemnation-active districts above jurisdictional average. Therefore, variations of ACLV percentages within jurisdictions should not make my findings of under-compensation spurious.

43 Telephone interview with an official in DLA-MOI (Mar.7, 2007).
45 Telephone interview with an official in DLA-MOI (Oct. 3, 2006).
46 Given that government-assessed market value is a conservative estimate of real market value, a compensation percentage of 100% may still be under-compensating condemnees.
2. Extra Proportion

Five of the 25 jurisdictions have two or three extra proportions in one year. In order to adequately represent the data and not give these jurisdictions unequal weights, I use the mean of the extra proportions as the representative extra proportion throughout the paper. One of those five jurisdictions has used a range of extra proportions (e.g., 110%~400%) in two years. For the same reason, I use the mean of the extra proportions as the representative extra proportion. These should not bias the results.

IV. Data

This article uses local-government-level data in Taiwan. I use the terms local governments and (local) jurisdictions interchangeably. In Taiwan there are 25 local governments (either a county or a city), the mayor and councilmen of which are elected by popular votes. The average size of a local jurisdiction is a little less than 1,500 km²—that is about twice as large as New York City or one-third as large as Rhode Island. On average there are almost 1 million residents in a local jurisdiction.

Annually since 2000, DLA-MOI has publicized extra proportions for each jurisdiction. Extra proportion data are not published and only post-2002 data are available from DLA-MOI. My source for the 2000 extra proportion data was an academic article. Extra proportion data for 2001 are not available. DLA-MOI also publishes the number of takings cases in each jurisdiction. I use ACLV percentages and extra proportions to calculate compensation percentages in all jurisdictions. I present the data in the following way:

Figure 2 exhibits the ACLV percentages of all jurisdictions from 2000 to 2007, and reveals a gradually shrinking gap between ACLV and government-assessed

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A common reason Taiwan’s governmental agencies publish statistics is to demonstrate “how much they have done” to supervising agencies, the legislature, and the public. I do not think that the DLA-MOI would have motives to misstate the data, as they are not politically responsible for determining the percentages. Local governments, which are responsible for these percentages, may harbor such motives. However, the percentages are decided by the Land Evaluation Committee, whose meetings are open to reporters. It is presumably difficult to manipulate the numbers. As discussed in Part III.B.1, however, local government employees do have incentives to manipulate the transaction prices they have investigated, and did indeed do this.

48 DLA-MOI shies away from publishing extra proportion data because it worries that “letting condemnees know that compensation standards are different across regions would cause political turmoil.” Telephone interview with an official in DLA-MOI (Mar. 7, 2007).

market value. Figure 3 records extra proportions awarded to condemnees in all jurisdictions from 2000 to 2007 (except 2001). Figure 4 exhibits compensation percentages in 2000 and from 2002 to 2007.

V. FINDINGS

Counting one jurisdiction in one year as one observation, Figure 4 shows the distribution of compensation percentages by year (in 2000 and from 2002 to 2007). The mean and median compensation percentages rise steadily over the year. Figure 5 considers a jurisdiction whose compensation percentage is between 95% and 105% as giving fair-market-value compensation and defines a jurisdiction whose compensation percentage is above 105% (below 95%) as giving over-compensation (under-compensation). Accordingly, 30% of the observations fall into the category of fair-market-value compensation, leaving 52% as under-compensation and 18% as over-compensation. Because the government-assessed market value (the measure of fair market value) is a proxy for a lower limit on real market value, more than 52% of the observations would have been categorized as under-compensations if I had data on the real market value. This result is consistent with the long line of literature indicating that the compensations condemnees received were lower than market value.  

Due to a substantial change in the national land value increment tax policy (more on this later) in 2005, compensation percentages since 2006 are significantly different from those in and before 2005. Table 1 breaks down the compensation level by two periods, 2000–2005 and 2006–2007. The proportion of under-compensations drops from 62% in the first period to 26% in the second period and proportions of over-compensations and fair-market-value compensation both increase. The difference between these two periods is highly statistically significant (p<0.0001).


Note that most of these papers were written before the significant increase in compensation level in 2005. As shown in Table 1, more observations were categorized as under-compensation in and before 2005.
Figure 6 shows that during 2000–2007 the compensation percentages of the over-compensation observations range from 105% to 126%, while those of the under-compensation observations range from 95% to 22%. Figure 7 incorporates the number of condemned plots in each jurisdiction each year, showing a similar result. 63% of land parcels taken in this period were under-compensated, 14% of them were over-compensated, and 23% received fair-market-value compensations. Additionally, only a tiny fraction of condemnees were compensated 30% more than government-assessed market value, while roughly 150 times as many condemnees were compensated 30% less than the value and below. Condemnees who were compensated 10% to 20% less than government-assessed market value also outnumber those who received 10% to 20% percent more. There were also condemnees who received only 60% (or less) of the government-assessed market value as compensation.

Table 2 breaks down the number of condemned plots by compensation level and the two periods, showing that condemnees are more likely to receive over-compensations and fair-market-value compensations during 2006–2007 than during 2000–2005. Because in 2006 and 2007 local governments condemned much fewer plots per year and in total, the distribution of compensation level during 2000–2007 still approximates the distribution during 2000–2005.

Not enough data are available to evaluate condemnations that took place between 1977 and 1999. Nevertheless, we have reason to believe that under-compensation was more prevalent in 1977–1999 than it was after 2000. First of all, the literature points out that ACLV from 1977 to 1999 was less than one-half of the real market value.51


In the mid-1990s, ACLV is only around 45% of the real market value. *See Tsai, supra* note 29, at 47 (reporting that from July 1995 to June 1996, ACLV divided by auction price of public land is 45%); *Yu, supra* note 20, at 76 (reporting that from March 1996 to December 1996, ACLV divided by transaction prices of public land is 45%).

In 1980s, ACLV is no higher than 45% of the real market value. *See Xu-wen Chang, An Empirical Study on the Divergence Between ACLV and Market Value, 25 JOURNAL OF THE LAND BANK OF TAIWAN 1, 2 (1988)(Chinese)(reporting that in 1987, ACLV in Taipei City and Taichung City are*
That means the extra compensation would have to amount to more than 100 percent of the ACLV compensation itself in order not to under-compensate landowners. Condemnees, however, started to receive extra proportion compensation as late as 2000. Before then, condemnors could award condemnees additional *ad hoc* compensation. It is unlikely that *ad hoc* compensation would surpass ACLV compensation. Finally, the literature frequently lamented under-compensation in this period.

The bottom line is that from 2000 to 2007, takings compensations in Taiwan were inaccurate—approximately three-quarters of the condemned plots did not receive fair market value (95%–105% of government-assessed market value). Most of the inaccurate compensations were under-compensation. Condemnees in 2006 and 2007, however, were compensated better than condemnees in or before 2005 were. Before 2000, takings compensations were probably even more inaccurate and more skewed toward under-compensation.

VI. EXPLANATION: TWO BEHAVIORAL MODELS OF GOVERNMENT OFFICIALS

In order to understand why Taiwanese condemnees were often under-compensated and sometimes over-compensated, it is necessary to construct a behavioral model for those who decide how to award compensation—in this case, government officials. As Louis Kaplow put it, “[a] number of (conflicting) views regarding the effect of a compensation requirement on government behavior were offered. Much further analysis and empirical study is necessary to resolve the issue.”

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52 There is no data recording how often these *ad hoc* compensations were awarded, or what their value was.

53 In 1988, the Urban Planning Law, the first law to legally authorize extra proportion compensation under certain circumstances, set a cap of 40%. In condemnation cases where the Urban Planning Law is not applicable, it is unlikely that the local governments will award *ad hoc* compensation that is more than 40% of ACLV. In 1996, the Taiwan Provincial Government stipulated that its condemnation project would grant additional compensations to urban land and non-urban land alike, but they should be no more than, but not necessarily, 40%. See Taiwan Provincial Government (Mar. 7, 1996) Fu 85 No.148408 Explanation.

54 See, e.g., Yu, *supra* note 20, at 78.

In the following sections, I use Taiwan’s experience as a case study for this theoretical dispute, showing that the fiscal illusion theory 56 (also known as the “cost-internalization theory57”) does not thoroughly explain what I observed in Taiwan, whereas Levinson’s political interest theory provides a better explanation.

A. The Fiscal Illusion Theory

1. Claims

The fiscal illusion theory argues that government officials will not internalize the costs of takings unless paying compensation. 58 The takings compensation requirement is necessary to enforce the cost internalization. 59 The fiscal illusion theory, however, does not clarify government officials’ utility function. Why do government officials prefer to award less than fair market value? Is it because of their ideology, out of laziness, for political or emotional reasons, or for any other reason?

Furthermore, the fiscal illusion theory does not provide clear behavioral predictions for these officials. With or without just compensation requirement, do government officials aim to minimize compensation payment or just to reduce compensation to a certain extent? Scholars opposing this theory have argued that this theory implicitly assumes the government behaves like a profit-maximizing firm. 60 Accordingly, government officials should pursue compensation minimization. In the following, I take the fiscal illusion theory to mean that government officials favor minimizing takings compensation, though I recognize that some fiscal illusion theorists may have implicitly assumed otherwise.

If assuming profit-maximization, the fiscal illusion theory can even be connected with William Niskanen’s famous thesis 61 that governments pursue budget...

56 I discuss the “fiscal illusion” theory as defined in the legal academia. The literature on public choice defines fiscal illusion (quite differently) as “the legislature can deceive the citizens about the true size of government.” See Dennis C. Mueller, Public Choice III 527-29 (2003); Michael H. Schill, Intergovernmental Takings and Just Compensation: A Question of Federalism, 137 U. Pa. L. Rev. 829, 859 n. 115 (1989).


58 See literature cited in note 3.


60 See Been & Beauvais, supra note 57, at 92.

61 A good introduction and critique of Niskanen’s model can be found in Kenneth A. Shepsle & Mark S. Bonchek, Analyzing Politics: Rationality, Behavior, and Institutions 346-55 (1997); Terry M. Moe, The Positive Theory of Public Bureaucracy, in Perspective on Public Choice 455,
maximization—given that the government prefers to minimize takings compensation (a type of budgetary outflow), it would be reasonable to assume that the government prefers more budgetary inflow as well. That is, the fiscal illusion theory would implicitly endorse the claim that government officials aim to maximize budget or “discretionary budget.” For the purposes of my argument, I understand the fiscal illusion theory as predicting that government officials maximize discretionary budget, while acknowledging that some proponents may have interpreted this otherwise.

To recapitulate, I interpret the fiscal illusion theorists’ major empirical claim to be that governments will pursue takings compensation minimization. Yet, I believe that the fiscal illusion theorists are less willing to identify their theory with (discretionary) budget maximization. As a theoretical matter, I also explore this as their potential claim. In the case study of Taiwan below, I do not examine whether government officials maximize the whole (discretionary) budget. Instead, I test whether government officials maximize the net of “tax revenues minus takings compensation payment,” a sub-category of the discretionary budget. As the next sub-section will show, Taiwanese government officials neither minimize takings compensation nor maximize discretionary budget.


One of the important assumptions in Niskanen’s model is that “bureau heads are monopolists, so they get the budget they desire,” because bureaus control information that congress does not have. See Ronald Wintrube, Modern Bureaucratic Theory, in PERSPECTIVE ON PUBLIC CHOICE 429, 433-39 (Dennis C. Mueller ed., 1997). In Taiwan’s case, the legislature is not involved in the process, but local governments do have discretion (monopoly power) in setting ACLV to partially determine the size of their budget. This similarity notwithstanding, this Article does not claim that Taiwan’s experience directly refutes Niskanen’s model.

Of course, it all depends on the utility function of government officials. For instance, government officials may dislike any type of spending but be indifferent to budget size.

Niskanen originally argued that government agencies pursue budget maximization. See WILLIAM NISKANEN, BUREAUCRACY AND REPRESENTATIVE GOVERNMENT (1971). Later, Niskanen agreed with his critics that government agencies maximize discretionary budget (the difference between the total budget and the minimum cost of production). See William Niskanen, Bureaucrats and Politicians, 18 J. L. & ECON. 617 (1975); Moe, supra note 61, at 459.


The relationship of fiscal illusion theory and Niskanen’s model has not been clearly pointed out by the fiscal illusion theorists. Levinson, an opponent of this theory, only discusses Niskanen extensively within his general discussion of government official behaviors, not specifically in the takings context. See Levinson, supra note 5, at 932-34; Levinson, supra note 7, at 381.

Not all budget revenue comes from land value increment tax, and the government has other types of necessary expenses. However, the higher the net of “tax revenues minus takings compensation payment,” the larger the discretionary budget would be. If the government really aims to maximize discretionary budget, it will maximize this sub-category of the discretionary budget.

Several empirical studies have suggested that Niskanen’s budget maximization model is not borne
2. Inadequate to Explain Taiwan’s Experience

My finding that almost two-thirds of the condemnees were under-compensated initially seems to support the fiscal illusion theory’s assertion of that government officials seek to minimize compensation payouts. In fact, my finding proves the opposite. ACLV is used to determine takings compensation as well as to calculate land value increment tax. Compensation is a budgetary outflow and tax revenue is a budgetary inflow. Should local governments seek to maximize discretionary budgets, they would increase (or decrease) ACLV until the marginal benefit of more tax revenue equals the marginal cost of higher compensation payments.68

Nevertheless, the ACLV has never been set at the level where the discretionary budget is maximized. The ACLV in every jurisdiction in every year from 2000 to 2007 is below government-assessed market value, as Figure 1 shows. Local governments have the legal authority to raise ACLV to increase tax revenue until it reaches government-assessed market value, yet they have failed to do so.69

Their reluctance is not due to the concern over increased compensation payments. For local governments, the marginal benefit for every one-dollar raise in ACLV is “one dollar times the land value increment tax rate (20%70) times the probability of sales,” whereas the marginal cost is “one dollar times the probability of condemnation.” Doing a simple calculation, one finds that as long as a sale is at least five times as likely as a condemnation, the marginal benefit of increasing ACLV is larger than its marginal cost.71

Data72 show that, in Taiwan between 2000 and 2007, sales were, on average, 55 times as frequent as takings; the median value was 21 times as frequent. In only 14

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68 More than 10% of total local budgets come from land value increment tax receipt. Data are available at Ministry of Finance, R.O.C., http://www.mof.gov.tw/public/Data/statistic/Year_Tax/94/4080.htm (last visited Dec. 3, 2006). Since land value increment tax is an important source of budget, budget-minded local governments will have incentives to manipulate ACLV.

69 Generally, ACLV percentages did grow gradually, but the pattern cannot be called maximization, which would not have taken more than twenty years to increase so minimally.

70 The lowest land value increment tax rate since 2002 is 20%. Using 20% tax rate in the benefit side calculates the minimum tax revenues for local governments.

71 If the quotient of “1 dollars * 20% * the probability of sales” divided by “1 dollar * the probability of condemnation” is larger than 1, the marginal benefit surpasses the marginal cost. After simple calculation the formula becomes: if the quotient of “the probability of sale” divided by “the probability of condemnation” is larger than 5, the marginal benefit surpasses the marginal cost.

percent of observations (27 of 200)\(^{73}\) were sales less than five times as frequent as takings in the year.\(^{74}\) It is unlikely, therefore, that Taiwanese local governments shy away from raising ACLV because of concerns over increased compensation.\(^{75}\) Fiscal illusion theory offers no other reason why local governments did not increase ACLV to maximize their discretionary budgets.\(^{76}\)

Furthermore, if local governments seek to minimize compensation payments, the discretionary extra proportion should be \textit{zero}. After all, extra proportion is not mandated by law. Every local government can choose to pay additional compensations or not each year. Figure 2 shows that, however, extra proportion in any jurisdiction in any year was at least 20%. The median extra proportion was 40% every year; the mean extra proportion fluctuates around 50%. That is to say, local governments voluntarily pay an additional, significant amount of compensation. Moreover, the fact that (as Table 1 and Table 2 show) 18% of the jurisdictions awarded, and 14% of the condemned plots received, more than government-assessed market value also casts doubt on the applicability of the fiscal illusion theory in this context.\(^{77}\)

In conclusion, local governments deliberately make these fiscally-expensive choices without official mandates from DLA-MOI, the court, or the central legislature. Local governments have neither maximized their discretionary budgets nor minimized takings compensation payment. The fiscal illusion theory, therefore, does not adequately explain the situation in Taiwan. In the next section, I examine whether political interest theory provides a better model.

\(^{73}\) One jurisdiction in one year counts as one observation.

\(^{74}\) As noted in footnote 70, because much higher tax rates also applied, so frequency less than a factor of five does not necessarily makes the marginal costs of increasing ACLV higher than the marginal benefits.

\(^{75}\) I assume that in a jurisdiction, on average, the land parcels sold and the land parcels condemned are similar in market value. Only if the land parcels condemned are on average several times more expensive than those sold will my assertion in the text be refuted. The large size of my data, as well as the common-sense notion that it is usually cheap land gets condemned, makes this unlikely.

\(^{76}\) Granted, the number of sales is not given. A rise in ACLV may also decreases the number of sales, reducing the total amount of the revenues from land value increment tax (which is levied only when the land is sold). But it is unlikely that ACLV has reached the point where any increment in ACLV will reduce local governments’ net tax income.

\(^{77}\) One caveat is in order. Because my data may under-estimate the real market value, the actual cases of over-compensation may be fewer than noted.
B. The Political Interest Theory

1. Claims

Daryl Levinson, one of many critics of the fiscal illusion theory,\(^78\) criticizes the fiscal illusion theory. Levinson questioned its asymmetric assumptions that “government will take no account of the costs of resources unless those costs are translated into budgetary outflows in the form of just compensation payments,” and that “government will automatically internalize the social benefits of takings even if these benefits are not translated into budgetary inflows.”\(^79\) Instead, Levinson argues that

“predictions of government behavior should be based not on the supposed self-aggrandizing motives of a personified Leviathan, but instead on some combination of the constituent-driven political pressures brought to bear on government officials and the set of independent interests these officials might pursue in the space afforded them by democratic agency slack.”\(^80\)

In a recent article, Nicholas Bagley & Richard Revesz echoes Levinson in arguing that officials will not seek to increase the budget size.\(^81\)

I call this school of thought “political interest theory,”\(^82\) as it proposes that government officials’ utility function is dominated by political costs and benefits, instead of concerns about budgetary inflow or outflow. Namely, government officials


\(^80\) Levinson, *supra* note 5, at 916.

This seems to be an enlarged version of Levinson’s previous theory. In an earlier article, Levinson only stressed that “government internalizes only political incentives” (emphasis original), and did not discuss the independent interests of officials. See Levinson, *supra* note 7, at 357.


\(^82\) Levinson’s thesis also allows government officials to pursue certain personal goals. I do not deny this point, but will not discuss the personal interests of Taiwan’s government officials, because the political interest theory is sufficient to explain the findings.
seek to increase (if not maximize) their own political interests, rather than minimizing compensation payments or maximizing their agencies’ budget. By its nature, this theory does not provide a set of general behavioral predictions because the calculation of political costs and benefits depends on context. The following sub-sections use this theory to attempt to explain how local Taiwanese politicians’ evaluation of political costs and benefits leads them to under-compensate condemnees most of the time.

2. Local Governments Swayed by Influential Landowners

I explain Taiwan’s experience by applying the public choice theory in general and the political interest theory in particular. The central question here is why the under-compensated condemnees are not able to use their political influence to secure compensation at market value (I will discuss over-compensation later). Actually, this question poses a potential challenge to the public choice theory. According to Mancur Olson’s classic treatment of collective action, condemnees (a small group whose members have large personal assets at stake) should be relatively easy to organize and should therefore achieve the political leverage to acquire the compensation due to them. Yet these condemnees in Taiwan were under-compensated.

The piece missing from this simplified characterization is the rival interests of big landowners/local factions. To receive higher compensation, condemnees must see an increase in either ACLV or extra proportion. While increasing the ACLV will benefit condemnees, it will be detrimental to taxpaying landowners. Local landowners will also ultimately foot the bill for an increase in extra proportion (and this compensation). Therefore, to be able to receive better compensation, condemnees have to have more political influences than big landowners/local factions. In reality, the opposite is true. Big landowners/local factions have more political clout than the condemnee group. Condemnees may even fail to form a group to lobby. Hence, I


Some public choice theorists, like William Fischel, adopt cost-internalization theory. See Fischel, supra note 3, at 549.


85 Landowners’ tax burdens are less directly linked to the increase in extra proportion. Thus, landowners’ opposition to raising extra proportions should be weaker than their opposition to an increase in ACLV.

Nevertheless, extra proportions are a big favor for condemnees to ask. Extra proportions apply to the whole jurisdiction. Condemnees have to be very influential to persuade the government to increase extra proportion, and thus compensation, for all condemnees in order to give the lobbying condemnees better compensation.
argue that the general insights of public choice theory still apply, although they must be carefully tailored to Taiwan’s specific context, in which interest groups indeed dominate local politics, but condemnees are only one of such “group” and are not politically influential.

The rest of this sub-section explains big landowners’ strong political influence, while the next two sub-sections elaborate the reasons for condemnees’ relative political weakness.86

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The key institution that determines ACLV and extra proportion in each jurisdiction is the local Land Evaluation Committee. This committee has 17 members, and comprises the mayor, a local legislator, six local government officials, and several representatives from relevant associations.87 A majority vote of the Committee can adjust the preliminary district land value (government-assessed market value) as it sees fit; its decision on ACLV and extra proportion is final and almost always deferred to by DLA-MOI and the court.88

In practice, the local legislator serving on the committee, who speaks for the interests of landowners, wields disproportionate power.89 Mayors, seeking re-election or other political positions, also face pressure from landowners and local legislators,

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86 A condemnee could seek redress within the administrative system. Namely, a condemnee can file an administrative appeal to a local government for ex post re-evaluation of her land’s ACLV. Reviewing relevant court cases, I have observed more failures than successes to persuade the Land Evaluation Committee to raise the ACLV in this ex post procedure. I do not have enough data to discuss this issue in greater detail. The real estate expert I interviewed noted that condemnees have almost no chance to win in the procedure. Interview with Yi-chuan Chang, a real estate expert in Taiwan, in Taipei City, Taiwan (Jun. 8, 2006).

87 The city mayor is the director of the Committee. The other Committee members are the city government secretariat (who serves as deputy director); five government officials from different agencies; one local legislator; one land value expert; one “fair local person”; and seven representatives from different associations (such as the appraisers’ association). Committee members serve three-year terms and can be elected indefinitely.

88 Usually, DLA-MOI asks the presidents of those associations to attend Land Evaluation Committees. Sometimes the associations will elect another member as their representatives. Telephone interview with an official in DLA-MOI (Mar. 7, 2007).

89 See Supreme Administrative Court 2002 Ruling No. 1396; Kaoshiung Higher Administrative Court 2005 Ruling No. 662; Taichung Higher Administrative Court 2004 Ruling No. 376; Taichung Higher Administrative Court 2000 Ruling No. 124.

The court rarely overturns a Committee’s decisions, except when there are serious defects in the assessment procedures. See Supreme Administrative Court 2000 Ruling No. 3134; Supreme Administrative Court 2002 Ruling No. 1396. Kaoshiung Higher Administrative Court 2004 Ruling No. 788 ruled that the ACLV in that case is obviously improper and required the Land Evaluation Committee to re-assess.


89 See Tsai, supra note 29, at 45 n.1; Yu, supra note 20, at 95; Zhou, supra note 50, at 1. The last two authors are government employees in charge of assessing land value.
and will take seriously voters’ requests to not increase taxes.\textsuperscript{90} The mayor directly oversees the six committee members who are local government officials, and accordingly, they are quite likely to vote with the mayor.\textsuperscript{91} The nine remaining committee members who are not government officials are also lobbied, and sometimes even threatened, by other local legislators, big landowners, and even gangsters, to not increase ACLV\textsuperscript{92} significantly.\textsuperscript{93}

How exactly do landowners exert their political influence on local legislators and local mayors? Local politics in Taiwan, quite different from those in America,\textsuperscript{94} are dominated by local factions,\textsuperscript{95} which are not like those James Madison described in Federalist No.10. Rather, Taiwan’s local factions are “more group-like, permanent and sharply defined than factions elsewhere. They have permanent names, a strong sense of identity and a stable leader.”\textsuperscript{96} These factions control various local associations (such as farmers’ associations\textsuperscript{97}) and local credit cooperatives, in order to build a large voting bloc and control the lion’s share of the financial resources in these institutions.\textsuperscript{98} In order to secure more financial resources, local factions also play a major role in the real estate business.\textsuperscript{99} They are also “often alleged to hold ties with organized crime.”\textsuperscript{100}

The leaders of these local factions, or candidates endorsed by the factions, are often elected as mayors or local legislators. In this way, local factions dominate local politics. As big landowners who profit from real estate transactions and pay significantly higher land taxes than ordinary landowners, local factions strongly prefer

\textsuperscript{90} See, e.g., Yu, supra note 20, at 94-98; Li, supra note 32 (reporting that 95% of the participants showing up in the hearing held by local governments want the ACLV to be as low as possible).

\textsuperscript{91} In practice, among other things, a mayor can appoint another government official to replace a non-cooperative government official serving in the Committee. Thus, local government officials are expected to be subservient to the mayor.

\textsuperscript{92} No literature has discussed whether landowners in practice would lobby for extra proportion.

\textsuperscript{93} See Yu, supra note 20, at 94-101.

\textsuperscript{94} More on this in VI.B.5.

\textsuperscript{95} See, e.g., Dung-sheng Chen, Profitropolis: A Sociological Analysis of Local Factions, Conglomerate, and the Development of Taipei Metropolis, 2003, p. 28, 143 (Chinese).

\textsuperscript{96} For a great introduction of Taiwan’s local factions and their specialty, see Joseph Bosco, Faction Versus Ideology, 137 CHINA Q. 28, 32-41 (1994).

\textsuperscript{97} See Kun-rong Liao, The Predicament in Managing Farmers’ Association in Taiwan, Political Science Review, vol.16, 2002, p.178-79 (Chinese)(discussing on the relationship among farmers’ association, local factions, and local politicians); Bosco, id. at 36 (observing that local factions controlling patronage by winning elections in the Farmers’ Association).

\textsuperscript{98} See, e.g., Chen, supra note 95, at 138-39, 153.

\textsuperscript{99} See, e.g., Chen, supra note 95, at 144-46; Yu, supra note 20, at 84.

\textsuperscript{100} Yen-tu Su, Beyond Nightmare and Hope: Engineering Electoral Proportionality in Presidential Democracies, 30 J. LEGIS. 205, 220 (2004).
a low ACLV (so as to reduce tax payments), and they wield their political influence to prevent the ACLV from increasing significantly from year to year.

3. Condemnees May Fail to Organize

Big landowners/local factions have successfully influenced the decisions regarding ACLV. Condemnees, a small group of landowners with a high personal stake, should also succeed (if not more successful than a bigger local faction) in lobbying for more compensation. But they do not. As Saul Levmore observes, small groups may “fail to organize” or “do organize but lose out to dispersed voters or larger organized groups.” I elaborate these two possible explanations below.

Condemnees may fail to organize for several reasons. First of all, most condemnees are not repeat players. It is difficult to maintain a long-term organization of condemnees, because membership in the group is transitory and unstable. In addition, since condemnees often are less “discrete and insular” than “diffuse and anonymous,” it is very costly, and thus very difficult, to set up such an organization from scratch each time some condemnees want to lobby.

Furthermore, according to Figure 6, between 2000 and 2007, 70,533 of the 167,560 (42%) under-compensated plots in Taiwan received about 90% of government-assessed market value as compensation. The losses to these landowners are relatively small, and thus they may have incentives to free-ride on others’ efforts — at least not to spend more money on lobbying than they can reasonably expect back from lobbying — making the number of potential members of such organizations even smaller.

Moreover, condemnees may fail to organize because they cannot be sure of the best time of the year to lobby. Decisions regarding both ACLV and extra proportion are not rendered case-by-case, but announced on January 1 each year. To lobby

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101 Tax rate is set by the central legislature and is applicable to every local jurisdiction. It is easier for local factions to get lower tax payment by pressing down ACLV than by lobbying for lower tax rate.
104 See the comparison and analysis of these two types of groups in Bruce Ackerman, Beyond Carolene Products, 98 HARV. L. REV. 713 (1985).
for a higher ACLV or a higher extra proportion, condemnees must be apprised ahead of time that their land parcels are going to be condemned in the following year.\textsuperscript{107} The Land Condemnation Act does require a hearing before condemnation,\textsuperscript{108} but the hearing requirement is often waived for a variety of reasons, including condemnation plans involving military secrets, or condemnation plans for which hearings have been held in the earlier stages of an urban development project.\textsuperscript{109}

In cases in which the hearing requirement is waived due to an ongoing urban development project, landowners could know of the possible condemnation plan several years in advance.\textsuperscript{110} However, landowners have no way of knowing that the condemnation is near until the condemnor agency announces the condemnation plan (this would occur after the budget for takings has been approved by the legislature).\textsuperscript{111} By then it would be too late for condemnees to lobby Land Evaluation Committees with regards to changing either ACLV or extra proportion.

It is unlikely that landowners will begin to lobby for higher compensation once they know of a possible condemnation. Lobbying is not costless. An extra proportion is decided independently from an extra proportion in previous years;\textsuperscript{112} ACLV, though correlated with its previous appraisals, is also flexible. Securing a high ACLV or extra proportion this year does not guarantee the same terms next year. Furthermore, for potential condemnees, seeking a high compensation in a year when their property is not condemned actually benefits others (whose land is actually condemned) at their expense; they will have to pay higher taxes to defray the higher compensation or enjoy fewer benefits from the remainder of the tax revenues. And, after all, the threatened condemnation may never happen,\textsuperscript{113} so their political efforts may be wasted.

\begin{itemize}
\item \textsuperscript{106} Land Condemnation Act art. 30 (Taiwan).
\item \textsuperscript{107} Compensation is calculated according to ACLV \textit{at the time of condemnation}, not ACLV at the time of a condemnation project. The Land Act art. 240 (Taiwan).
\item \textsuperscript{108} Nothing substantive will be adjudicated in the hearing. The hearing is only for receiving comments from landowners and other relevant parties. In the context of this paper, the only function of a hearing is to let landowners know in advance that a condemnation might be coming.
\item \textsuperscript{109} See Ministry of the Interior, \textit{Land Condemnation Handbook}, 2004, p.23-28 (Chinese); Land Condemnation Act art. 10 (Taiwan).
\item \textsuperscript{110} If the condemnation involves military secrets, there would not be any hearing from beginning to end.
\item \textsuperscript{111} The government would keep the condemnation plan secret until the plan has gone through the administrative process and the city council has passed the budget. Telephone interview with an official in Parks and Street Lights Office, Taipei City Government (Oct. 30, 2006).
\item \textsuperscript{112} Extra proportions in a jurisdiction appears to be very stable, but it makes it harder for potential condemnees to lobby for a change.
\item \textsuperscript{113} Land can be designated as “preserved land for public infrastructure.” Since 1988, there was no deadline for condemning such land. Thus, landowners of such land know in advance that their land might be condemned but they are not sure whether and when; the lack of deadline implies that governments are not obliged to condemn the land.
\end{itemize}
When the Land Condemnation Act requires a hearing, condemnees can be relatively sure of the date when condemnation will take place. The condemnation project, however, is still contingent on the approval by central government agencies and on the passing of the budget.

My argument above takes into account the high organization costs in local politics. Condemnees face similar hurdles in national politics. The national legislature could amend laws to mandate compensation at (government-assessed) market value or propose a constitutional amendment stipulating market value compensation. But to pass these reforms, there must be a critical mass of condemnees persuading a sufficient number of legislators at the same time; otherwise, they will fail to assemble the majority required to amend laws or propose constitutional amendments. Without long-standing organizations lobbying for higher compensation, or other organizations that are willing to represent condemnees’ interests, condemnees’ demands will fall on deaf ears.

4. Condemnees May Lose to Local Factions

Even if condemnees do organize a lobbying group, the small size of the group may pose a handicap when facing the rival interests of a larger group. As Jerry

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114 Taiwan’s Constitution does not contain a specific just compensation clause or any clause specifying how the value of land should be assessed. Article 143 stipulates that “[g]overnment may condemn such land according to its value.” (emphasis added.) The Grand Justices of the Constitutional Court, Judicial Yuan, the sole institution that has constitutional review power, has not made any interpretation concerning the constitutionality of ACLV and extra proportion as “its value”/compensation.

115 The most probable candidate for representing condemnees’ interests is the Farmers’ Associations, because from 1979 to 1991 in Taipei City (the only data available), on average 51% of condemned land is farming-related. Nevertheless, I believe that farmers’ associations will not be helpful in lobbying for more compensation.

Farmers’ Associations are controlled by local factions. Condemnees have to be influential enough within the factions to trigger lobbies from the associations. Though a majority of condemnees are farmers, condemnees/farmers are still only a minority in the Farmers’ Associations. Farmers’ Associations are more likely to spend their political resources on policies that take care of most farmers or prominent local faction members than on policies that only take care of the few condemnees.

In addition, politicians are more willing to grant farmer-specific subsidies (like monthly stipends for old farmers) than awarding more compensation to condemnees, who are not a recognizable group, because it is easier for politicians to “sell” the former policies to the general public.

In 2000, the bill that became the Land Condemnation Act was debated in the national legislature. The administration proposed a version of the bill in which condemnees receive ACLV plus extra proportion compensation. In floor debates, only a few legislators made a case for more-than-market-value compensation. But they eventually gave up (probably due to lack of support from other legislators) and consented to the administration’s proposal. See Zhou-xin Dun, On Taiwan’s Land Condemnation Regime: A Power Approach, Cheng Chih University Master Thesis, 2005, p.47-48 (Chinese). The transcripts of floor debates are available at Legislative Yuan Legal System, http://lis.ly.gov.tw/lcgc/lclaw (last visited Dec.5, 2006).

116 See Saul Levmore, Just Compensation and Just Politics, 22 CONN. L. REV. 285, 306-07 (1990)(arguing that condemnees are unlikely to compete effectively in the political arena).
Mashaw suggests, if what attracts government officials is the number of votes a group can offer, small size is a disadvantage. 118 Daniel Farber counters that small groups of condemnees could still be “attractive customers” for government officials. 119 Although this might be true generally, it is not persuasive in Taiwan’s context.

To increase compensation, condemnees have to battle with landowners/taxpayers in general and big landowners/faction members in particular. Nevertheless, landowners are far more numerous than condemnees. There is only about one condemnee for every one thousand landowners in a year. 120 Compared with big landowners/faction members, what condemnee groups can offer is scant. Condemnees can be good “customers,” but local factions are local politicians’ “boss.”

Politically influential landowners facing condemnation will not be left under-compensated, however. Their best bet is not to take to the streets to demonstrate against under-compensation alongside other condemnees, but to avoid their property being condemned altogether by deploying strong-arm tactics. 121 Evidence shows that these powerful landowners can pressure local governments to change the condemnation project to spare their land. 122 Hence, those most influential landowners do not side with the condemnee groups, leaving the rest of the condemnees even more politically helpless. 123

118 See JERRY L. MASHAW, GREED, CHAOS, & GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW 34 (1997) (“[I]f votes are the medium of exchange, then groups of large size obviously have a significant advantages, even if their interests are not so intense.”). Accord NEIL K. KOMESAR, IMPERFECT ALTERNATIVES, CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY 74 (1994).
120 From 2002 to 2006, on average, the area of condemned land divided by that of total private land is 0.00146. I use this number as a proxy for the ratio of condemnees to landowners.
121 Some evidence suggests that some landowners would seek higher compensation (maybe because they are not influential enough to change the condemnation project). A government official asserted that condemnees would ask local legislators to pressure Land Evaluation Committees to increase the ACLV of the land value districts which contain soon-to-be-condemned land. See Li, supra note 32.
122 See, e.g., Chen, supra note 95, at 122-23; Email from Cheng Chih Chen, a condemnee in Taiyuan County, to the author (Nov. 15, 2006, 10:19 EST) (on file with author)(The local administration altered road-building plans from a direct path to a curved road that would bypass influential landowners’ land).

American political lore is also rife with such stories. See Barton H. Thompson, Jr., A Comment on Economic Analysis and Just Compensation, 12 INT’L REV. L. & ECON. 141, 141 (1992).

But cf. Garnett, supra note 10, at 105, 110-20 (in a case study of Chicago’s expressway planning, surmising that condemnors “avoid taking property that has high subjective value.”)
123 Levinson has questioned the necessity of the just compensation clause, because it “forces government to do what it will always choose to do anyway, namely minimizing the political costs of its taking by redistributing the economic costs from concentrated interest groups to diffuse taxpayers or politically expendable beneficiaries of other government program.” See Levinson, supra note 7, at 376. This argument, however, should be context-dependent. Levinson seems to admit this point, but he does not make clear whether a just compensation requirement is still “superfluous” when condemnees are not politically influential. See id.
5. Explanations for Over-compensation in General

This sub-section explores the other side of the phenomena—over-compensation. One may wonder why it is in the political interests of government officials to award extra proportion every year. Generally speaking, big landowners/faction members oppose increases to ACLV, but not extra proportion, because the expenses of the latter are shared by all taxpayers and not directly linked to big landowners’ tax bills. Although condemnees could offer government officials few, if any, political resources in return, and, as noted above, condemnees may not be able to lobby government officials before condemnation, government officials are willing to award extra proportion without a guarantee of quid pro quo from condemnees.

Without extra proportion, takings compensation would be utterly low. The significant decrease in compensation in the absence of extra proportion certainly would increase ex post political pressure from condemnees through, for example, massive street demonstrations; indeed, such demonstrations in the pre-extra proportion period (before 2000) were indeed not unusual. Additionally, the court may intervene because the administration is “going too far.” Essentially, bad publicity is a political cost for government officials. It is in their political interests to offer certain extra proportions.

On the other hand, it may not be in government officials’ best political interests to give high extra proportion so that compensation percentages equal to 100%. Because budgets are ultimately limited, for government officials, there are political opportunity costs in all discretionary governmental spending. They may prefer to allocate the money “saved” from compensation to their pet projects, which will bring political benefits that outweigh the political costs incurred by consistent under-compensation.

Why then, one might ask, is there ever over-compensation? The key point is this:
under some circumstances, it could be in the government officials’ political interests to award condemnees the government-assessed market value, or some higher amount, as compensation for their property. (Recall that the political interest theory does not predict compensation minimization.) For instance, in a large-scale subway or railroad construction project, a delay of land assembly due to protests against under-compensation can prolong the whole project past deadline,\footnote{see Michael Heller & Rick Hills, Land Assembly Districts, 121 Harv. L. Rev. 1465, 1478 (2008) (arguing that if condemnees are “highly litigious or politically obstreperous, they can delay the condemnation and run up the legal costs of the land assembler.”).} causing the government to pay contractual damages to various contractors.\footnote{In a very famous case in Taipei City (in which the compensation percentage has been higher than 100% since 2002), partly due to massive and fierce protests against under-compensation, the construction project of a subway line was delayed. In the end, Taipei City had to pay the French contractor, MATRA, 50 million dollars in damages.} These damages could far outweigh the “saved” compensations and eventually take a heavy toll on government officials’ political capital.\footnote{These contractual damages could chip away at government officials’ reputation for good legal and political judgment. The damages can also reduce the budgetary resources that would have been at government officials’ disposal to increase their political interests.}

6. Explanations for Substantial Increase in Compensation after 2005

Now I attempt to explain the substantial increase in compensation percentages after 2005 (shown in Figure 4 and Figure 5). ACLV percentages and extra proportions determine compensation percentages. Though not immediately obvious from Figure 2, in fact, extra proportion in a jurisdiction never increases, and most jurisdictions’ extra proportions remain the same.\footnote{Interestingly, extra proportions do not decrease unless compensation percentages are above 100%.} Thus, the increase in compensation percentage can be attributed only to the increase in ACLV percentage.

This increase, however, is not due to the ebb and flow of local factions’ political power, but due to a substantial change in national tax policy.\footnote{The national legislature or the national government does not change the tax policy because of takings compensation concerns. During floor debate over the tax cut in national legislature, no government official or legislator mentioned its effect on condemnation compensation; rather, they fiercely debated the fiscal impacts of the tax rate reduction. The transcripts of floor debates are available at Legislative Yuan Legal System, \url{http://lis.ly.gov.tw/lgcgi/lglaw} (last visited Dec.5, 2006).} In 2002, the national legislature temporarily cut the tax rate of land value increment tax in half in order to revive the real estate market.\footnote{There is a sunset clause of two years. In 2004, the national legislature re-enacted the same clause with a sunset clause of three years. Equalization of Land Rights Act art. 40 (Taiwan).} In 2005, the national legislature made the tax cut permanent, but added a very important proviso that ACLV should gradually increase to government-assessed market value.\footnote{Equalization of Land Rights Act art. 40 (Taiwan); Land Tax Act art.33 (Taiwan).} The new laws also authorized DLA-MOI to
work out a plan to achieve this goal with local governments. DLA-MOI thus set a ten-year plan to make ACLV percentage in each jurisdiction to be at least 90% and even specified the minimum ACLV percentage each jurisdiction has to achieve each year. Additionally, the national government has to compensate local governments for their “actual losses” incurred by the tax rate cut. Local governments have to negotiate the amount of actual losses with the Ministry of Finance.

I argue that the ACLV percentages can be increased substantially after 2005 mainly because political interests of local government officials can be externally constrained by laws. After 2005, it is a legal mandate to increase ACLV percentages, local government officials could be personally disciplined for refusing to increase ACLV percentages without good reasons. DLA-MOI and the Control Yuan (a special-prosecutor-like government agency that monitors whether government officials do their works legally or properly) actively push local governments to increase ACLV percentages. The concern for personal liabilities neutralizes at least some of the political costs brought by raise in ACLV.

In addition, local factions/big landowners may blame government officials for increasing ACLV only if government officials have discretion and they choose to do so. After 2005, local government officials can explain to local factions/big landowners that the law mandates them to increase ACLV and DLA-MOI has set specific minimum ACLV percentages. Furthermore, though taxpayers would always hate paying more taxes, the huge cut in tax rates must have relieved much of the political pressure off local politicians’ shoulders when they increase ACLV percentages, because the taxes due are much lower than they would have been without the tax reform.

In sum, the legal mandate and reduced political costs motivate local government officials to significantly increase ACLV percentage after 2005.

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134 Telephone interview with an official in DLA-MOI (Nov. 27, 2005); unpublished data from DLA-MOI (available upon request).
135 Local governments would lose a large amount of tax revenues because of the tax cut. The law stipulates that the central government reimburses local governments for the losses. In order to reduce the losses that have to be reimbursed, the law mandates the increase of ACLV percentage, by which local governments could collect more taxes.
136 Equalization of Land Rights Act art. 40 (Taiwan); Land Tax Act art.33 (Taiwan).
137 Unpublished data from DLA-MOI show that in 2008, 16 of the 25 jurisdiction (64%) met the minimum ACLV percentage requirement set by DLA-MOI. The gap between the actual ACLV percentage and the minimum percentage is less than 3 percentage points in 5 of the 9 jurisdictions that fail to meet the requirement. The other 4 jurisdictions kept the gap within 10 percentage points.
VII. Generality of the Taiwan Experience

There are two major findings in this Article. First, the political interest theory provides a sounder model for understanding the behavior of Taiwanese government officials than fiscal illusion theory. Second, the *ex ante* assessments by the government regime in Taiwan mostly results in inaccurate compensation (with many more property owners being under-compensated than over-compensated). Below I discuss whether Taiwan’s experience can be generalized to apply to the American context.

The first finding should be generalizable. Indeed, for Levinson and his followers, my finding should not be surprising. By showing that the theory is applicable in Taiwan, where politicians, like those in the U.S., also need campaign contributions to win re-elections, and do not personally pay for any budget deficit or receive any budget surplus, my findings corroborate Levinson’s claim that American politicians make decisions based on political costs and benefits.

The second finding should also be generalizable, but in the narrower sense that under such regime it is difficult to induce government officials to assess property value accurately. Whether such a regime, when transplanted from Taiwan to the U.S., would result in under- or over-compensation depends on other aspects of the legal and political environment. It is inappropriate to make a general case.

For example, an American local government could choose to use the assessed property value to both tax and compensate landowners, but theoretically it could only use the assessed property value to compensate and levy property tax based on another assessed property value. Clearly, the political costs and benefits implied in these two alternatives would be quite different.

Furthermore, local politics in the U.S. and Taiwan are different. The former, many commentators argue, is “majoritarian,” while the latter is

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138 This is not impossible. In fact, in Taiwan after 1977, there were two government-assessed property values! One, ACLV, was used to levy land value increment tax and compensate condemnees. The other, PALV, was used to levy land value tax—the property tax. ACLV was on average three to four times as high as PALV.

139 It is reasonable to assume that American local politics would not change much even if adopting an *ex ante* assessment by the government regime.

“minoritarian.” In populous local jurisdictions in Taiwan, residents are heterogeneous. Some local factions own a lot of land parcels; there are also renters and small home owners. Local factions dominate local Taiwanese politics.

By contrast, a typically small local government in America rules by a majority vote. Most residents are “homevoters” with similar interests. It is difficult to predict whether a median homevoter will prefer to under- or over-assess ex ante property value. A homevoter may like her property value over-assessed if she thinks that a condemnation is likely and she cannot influence the takings decision—for example, when the federal government is constructing a new highway through her community. By contrast, a homevoter living in a wealthy suburb with good infrastructure in place will dislike the idea of over-assessment. Chances are that median homevoters in different jurisdictions will make different assessment choices.

Scholars have argued that in American large cities, politics tend to be minoritarian. Whether these regimes would favor over- or under-compensation depends on how well condemnees organize themselves and the relative political influences of landowner groups and condemnee groups. In addition, as discussed

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141 Robert Ellickson neatly defines a majoritarian politics as “an individual’s influence over governmental decisions is proportionate to his voting strength at general elections.” See Ellickson, supra note 140, at 405.

142 Ellickson defines a minoritarian politics as “the strength of an interest group is purely a function of its ability to contribute money, manpower, or other political assets to election campaigns.” Note that Ellickson used the term “influence model of politics” instead. See id, at 407.

143 97% of American cities and towns have fewer than 10,000 people; 52% percent have a population of less than 1000. By contrast, there are on average 915,061 residents in a Taiwan local jurisdiction. Taipei County, the most populous jurisdiction, has more people than twenty-four American states. Eight of twenty-five local governments in Taiwan, with more than one million people, are more populous than seven U.S. states. Twenty-two out of twenty-five jurisdictions have more than 100,000 residents. See Serkin, supra note 140, at 1631 n.24. Taiwanese local governments’ population in 2000 can be found in Statistics Search, http://www.ris.gov.tw/docs/f4a.html (last visited Sep.2, 2007). American States’ population in 2000 can be found in http://www.census.gov/population/cen2000/phc-t2/tab01.txt (last visited Sep.2, 2007).


145 See Vicki Been, The Peril of Paradoxes—Comment on William A. Fischel, “Exploring the Kozinski Paradox: Why Is More Efficient Regulation A Taking of Property”, 67 CHI.-KENT L. REV. 913, 920 (1991)(arguing that majoritarian model “does not capture the complexities of the politics of the major cities”); Ellickson, supra note 140, at 408 (“Developer influence should be at its greatest in a large, complex local government whose voting population includes many tenants and whose homeowners represent a wide range of income classes.”); Serkin, supra note 140, at 1630 (recognizing that large municipality is somewhat between minoritarian state and federal government on one side and the typical majoritarian small local governments on the other side); FISCHEL, supra note 140, at 92-93 (arguing that communities of less than 100,000 people tend to be more majoritarian than those with more than 100,000 people).

146 Levinson has argued that because of condemnees’ small numbers and geographical proximity, it is
above, the result would also depend on whether compensation and tax payments are based on the same official property value or different ones. If the same assessments are used in both cases, this would increase landowners’ incentives to oppose increasing compensation. The degree to which assessed value for compensation deviates from market value also affects condemnees’ incentives to take political actions.

VIII. CONCLUSION

Since 1977, Taiwan has used *ex ante* governmental assessment of land value to levy taxes and pay condemnation compensation. Data gathered between 2000 and 2007 show that local governments as assessors fail to provide accurate assessments due to political pressure from big landowners/faction members. As a result, about two-thirds of Taiwanese condemnees received compensation below the government-assessed market value. This case study also strengthens the case for Levinson’s political interest theory, while casting doubt on the empirical validity of the fiscal illusion theory.

Should American policymakers consider adopting the *ex ante* assessment by government method to increase assessment accuracy, this history of Taiwan’s use of this system provides a valuable lesson. If policy-makers choose to tinker with the current *ex post* assessment by government method, they should bear in mind that government officials who determine the amount of takings compensation value their political interests above the amount of compensation paid or the size of their agencies’ budget.

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relatively easy for condemnees to organize politically. Though Levinson admits that in many cases condemnees may still be politically over-powered by the beneficiaries of takings, another interest group. See Levinson, *supra* note 7, at 375-77.
**PRICE**

**Stipulated compensation:**
ACLV * (extra proportion +100%)
The legal formula to calculate takings compensation.

**Real market value:**
Unknown; approximated by government-assessed market value.

**Government-assessed market value:**
(1) = Preliminary district land value.
(2) = The median of the investigated transaction price.
(3) = A reasonable proxy of a lower limit on real market value.

**ACLV:**
The official land value for each land. Land Evaluation Committee adjusts preliminary district land value to determine ACLV.

**Extra proportion:**
The additional fraction of ACLV given to condemnees at local governments’ discretion.

**ACLV percentage**
= ACLV / government-assessed market value
= Official land value / government-assessed market value

**Compensation percentage**
= ACLV percentage * (extra proportion + 100%)
= Stipulated compensation / government-assessed market value
= \[
\frac{[ACLV \times (\text{extra proportion} + 100\%)]}{\text{government-assessed market value}}
\]

Figure 1. Key term explanations and relationships.
Figure 2. ACLV percentage in Taiwan, 2000 – 2007. Each year comprises 25 observations, one for each local jurisdiction. The year median (not shown) increases gradually from around 60% to 70%, fairly tracking the change of the year mean.
Figure 3. Extra proportion in Taiwan, 2000 – 2007. 2001 data not available. The median (not shown) in all years is 40%. The year 2000 has 24 observations. There are 25 observations each year after 2002. All observations above 100% are from the two poorest, small-island counties.
Figure 4. Compensation percentage in Taiwan, 2000 – 2007. Data for 2001 are not available. The year median (not shown) ranges from 82 to 103. The year 2000 has 24 observations. There are 25 observations each year after 2002. Compensation percentage below 100% means that stipulated compensation is below government-assessed market value.
Figure 5. Number of jurisdictions giving over-, under-, and fair-market-value compensation in Taiwan, 2000 – 2007. 2001 data are not available. Compensation percentage = ACLV percentage * (extra proportion + 100%). “Fmv compensation” means “fair-market-value compensation,” defined as compensation percentage between 95% and 105%. 174 jurisdiction-year observations in the figure (one jurisdiction in one year counted as one observation). The number beside the bar represents the number of jurisdictions that give under-, over-, or fair compensation.
Table 1 Compensation Level Before and After 2005

<table>
<thead>
<tr>
<th>Compensation level</th>
<th>Period</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>†2000-2005</td>
<td>2006-2007</td>
</tr>
<tr>
<td>Under-compensation</td>
<td>N</td>
<td>(%)</td>
</tr>
<tr>
<td></td>
<td>77</td>
<td>(62)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(26)</td>
</tr>
<tr>
<td>Fmv-compensation</td>
<td>N</td>
<td>(%)</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>(26)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(40)</td>
</tr>
<tr>
<td>Over-compensation</td>
<td>N</td>
<td>(%)</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>(12)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(34)</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>(%)</td>
</tr>
<tr>
<td></td>
<td>124</td>
<td>(100)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(100)</td>
</tr>
</tbody>
</table>

Note: “Fmv-compensation” means “fair-market-value compensation,” defined as compensation percentages between 95% and 105%.

† 2001 data not included.
Figure 6. Distribution of compensation percentage in Taiwan, 2000 – 2007. Compensation percentage = ACLV percentage * (extra proportion + 100%). 2001 data are not available. Compensation percentage of 100% includes data from 95% to 105%, and so on. One jurisdiction in one year counted as one observation; 174 observations in total. The median compensation percentage is 94.7%.
Figure 7. Number of condemned plots by compensation percentage, 2000–2007. Plots condemned in 2001 are not included in the figure due to missing compensation percentages. N=266,804. The numbers above the bars indicate the number of taken plots. Compensation percentage = ACLV percentage * (extra proportion + 100%). Compensation percentage of 100% includes data from 95% to 105%, and so on. About 14% of the cases have compensation percentage higher than or equal to 105%. About 63% of the cases have compensation percentage lower than or equal to 95%. 23% of the cases fall in the 100% bar.
Table 2 Number of Condemned Plots by Compensation Level Before and After 2005

<table>
<thead>
<tr>
<th>Compensation level</th>
<th>Period</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under-compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>160,549</td>
<td>7,011</td>
</tr>
<tr>
<td>(%)</td>
<td>(67)</td>
<td>(27)</td>
</tr>
<tr>
<td>Fmv-compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>52,265</td>
<td>10,188</td>
</tr>
<tr>
<td>(%)</td>
<td>(22)</td>
<td>(39)</td>
</tr>
<tr>
<td>Over-compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>27,996</td>
<td>8,795</td>
</tr>
<tr>
<td>(%)</td>
<td>(12)</td>
<td>(34)</td>
</tr>
<tr>
<td>Total</td>
<td>240,810</td>
<td>25,994</td>
</tr>
<tr>
<td>(%)</td>
<td>(100)</td>
<td>(100)</td>
</tr>
</tbody>
</table>

Notes: “Fmv-compensation” means “fair-market-value compensation,” defined as compensation percentage between 95% and 105%.

† 2001 data not included.