

## The protection of property rights through compensation – observations from Taiwan

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***Abstract.** Literature suggests three compensation principles for property expropriation – full, lump sum and market value. While it is difficult to judge which principle is superior, there is no doubt that everyone should be treated equally. Owners of property in Taiwan are required through valuation practices rather than by legislation to give up part of their property value in the public interest. Compensation to the expropriated property owners is collectively paid by the citizens, usually through taxation, and all property owners are equally liable to lose property. The trade-off between tax burden and excessive sacrifice finds a balance at market value.*

*Taiwan applies the same valuation methodology to both property taxation assessment and expropriation compensation. The tax-based value has proved to be significantly below the market value. However, the gap between the assessed and market value is narrowed by a deliberate increase in the announced current land value shortly before expropriation.*

*This article presents a comparison of market value and compensation amount for a set of sample properties in Taiwan on the assumption that they were to be expropriated. Its main finding is that the gap between the two is not uniform among properties. That is to say, under the present ad hoc valuation rule, some properties tend to be over-compensated while some others are under-compensated relative to market value. The empirical analysis has uncovered two valuation issues related to compensation in Taiwan that warrant further investigation: (i) whether the ad hoc valuation rules plus the flexible additional compensation satisfactorily reflect the market value; and (ii) whether the difference between market value and the amount of compensation determined remains uniform among properties.*

**Keywords:** expropriation compensation, compulsory purchase, Taiwan

### 1 Full, lump sum or market value compensation

A good economic argument for wielding compulsory purchase power is to prevent monopoly. Posner (1992) makes the case as follows. In a project where a number of land parcels are required, most owners will be tempted to hold out for a price

in excess of the opportunity cost of land. If the land acquisition costs are high, then consequently the costs and then prices of services, such as railroads and gas supply, will be higher. A higher service price will induce some consumers to shift to substitute services. The reduced production of the service requires less land than would have been bought at the price equal to the opportunity cost of the land. Higher land prices will also give the service producers an incentive to substitute other inputs for some of the land they would have purchased. As a result, some of the land that would have been more valuable to the service producers will remain in its existing less valuable uses, and this is inefficient. Posner also suggests that people must be allowed to use the courts to shift resources to a more valuable use in settings of high transaction costs because the market is by definition unable to perform this function. The high prices landowners tend to ask on a monopolistic position during land assembly are often taken as a justification for applying expropriation power in order to prevent the market inefficiency. To keep this coercive power in check, the liability rule of property rights suggests that a property owner may not refuse compensation or ask for some arbitrarily large compensation, but is entitled to be paid the market value of a property (Fischel, 1985).

Stephen (1988) holds that proper compensation should take into account property owners' welfare loss. Consumers' surprise, reservation price and the amount needed to persuade an owner to give up property are some possible measures of this. Trefzger and Colwell (1996) also suggest that a higher-than-market-value compensation could be optimal for investment efficiency. However, Cooter and Ulen (1988) note that property owners should be aware of the risk of their properties being taken by governments before they invest capital in land. The risk of expropriation is fundamentally no different from any other form of risk. A full compensation for the loss of property value induces property owners to unduly ignore risk any investor expects to bear. Cooter and Ulen argue for a lump-sum compensation as far as efficiency of capital investment is concerned. This lump-sum compensation can be less than the market value and still satisfy the efficiency requirement. However, Fischel and Shapiro (1989) note that compensation is generally paid out of taxation levied on all citizens. In addition, all owners are liable to lose property through expropriation. The burden of compensation payment shared by the whole society leads Fischel and Shapiro to argue for the compensation of market value.

In summary, there are three lines of argument along which an optimal compensation principle is proposed. The first is the full, or above-market, compensation principle. Proponents of this principle acknowledge owners' attachments to property. In order to restore owners to their original position prior to expropriation, their psychological loss should be compensated because this loss is as real as any kind of monetary loss. The second is the lump-sum compensation principle. This principle is largely concerned with the efficiency aspect of compensation with a focus on how the compensation level might affect capital investment in land. It argues for an efficiency rule that the amount of compensation should be independent of the value of invested capital. The below-market value compensation also meets the requirement. The third is the market-

value compensation principle. This principle highlights the balance between owners whose land is expropriated and the rest who pay for the compensation through taxation. Everyone is equally liable to be the one whose land is taken. In the spirit of the “veil of ignorance” submitted by Rawls (Hausman and McPherson, 1996), market value compensation is often employed as a balance. Market value compensation is what a society would tend to choose if the citizens knew of the power of compulsory purchase in the abstract but without comprehension of how the burden resulting from the power would actually fall among the citizens. Fischel (1995) presents historical evidence to suggest that the constitution makers in the United States of America did balance the benefits of greater compensation against foregone benefits from public works. That is to say, they consciously chose market value as the compensation basis despite their awareness of possible under-compensation to property owners’ subjective loss.

It can be argued that the price reached under the shadow of compulsory purchase is primarily determined by the demand side rather than supply side. After all, there is only one buyer (the government), which has the right to acquire the land. Stephen (1988) makes it clear that it is not the seller’s reservation price but the willing buyer’s valuation that determines price. In other words, sellers have a very limited role to play in price negotiations. In addition to the above theoretical discussion on an optimal compensation, a limited number of studies have provided empirical evidence. Analysing an urban renewal project in Chicago, the United States of America, Munch (1976) concluded that under eminent domain high-valued parcels systematically received more than market value and low-valued parcels received less than market value. The findings can be interpreted as consequences of the United States legal system. In the United States of America, the courts settle the compensation values where dispute arises, and large landowners are generally better able than small landowners to afford to take legal action (Posner, 1992). Imrie and Thomas (1997) examined property expropriation in an urban regeneration project in south Cardiff, the United Kingdom. They found that owners of expropriated small firms were generally in a disadvantaged position and consequently reacted passively. While it is difficult to draw conclusions from such limited empirical evidence, it does appear that compensation issues are not as simple as choosing among three principles, and that specific legal and institutional factors deserve attention.

## **2 Property rights and their protection in Taiwan**

Article 15 of the Constitution of Taiwan states: “The right of existence, the right to work and the right of property shall be guaranteed to the people.” In addition, Article 143 declares that all land within the territory “shall belong to the whole body of citizens.” It further states: “Private ownership of land, acquired by the people in accordance with law, shall be protected and restricted by law. Privately-owned land shall be liable to taxation according to its value, and the Government may buy such land according to its value. Mineral deposits which are embedded in the land, and natural power which may, for economic purpose, be utilized for public benefit shall belong to the State, regardless of the fact that private individuals

many have acquired ownership over such land. If the value of a piece of land has increased, not through the exertion of labour or the employment of capital, the State shall levy thereon an increment tax, the proceeds of which shall be enjoyed by the people in common. In the distribution and readjustment of land, the State shall in principle assist self-farming land-owners and persons who make use of the land by themselves, and shall also regulate their appropriate areas of operation.”

Eminent domain and compensation have continued to arouse controversy in respect of their meanings and applications. The Justices of the Constitutional Court, Judicial Yuan, have made a number of influential interpretations with respect to eminent domain and compensation. The Constitutional Court holds the power of interpreting the Constitution in relation to: uncertainties regarding the application of the Constitution; the constitutionality of laws or orders; and the constitutionality of local government laws. Eminent domain means that the government takes constitutionally protected private property for public use according to legal procedure. Such expropriation and its procedural law must: “meet the principle of proportionality, and fair compensation must be paid within a reasonable period” (Judicial Yuan Interpretation No. 425). The above concept is reiterated elsewhere. To be consistent with this constitutional protection of property rights, “state organizations, for the necessity for public use or other public interests, might expropriate people’s property according to law, but should give a fair compensation in return” (Judicial Yuan Interpretation No. 400). These interpretations, among others, by the Constitutional Court clearly state that a fair compensation should be paid to the owners of interest on a property that is acquired by the government for the purposes of public use or public interest.

A brief review of interpretations of the Constitution suggests that the full compensation principle is not employed in Taiwan but that a fair compensation principle is. However, what “fair compensation” stands for is defined neither in the Constitution nor in its interpretations.

### **3 Ad hoc valuation rules for expropriation compensation**

Under Article 30 of the Land Expropriation Act in Taiwan, when any land is expropriated, its land value is to be compensated according to the announced current land value. The announced current land value is determined by reference to regulations for investigating and estimating land value. The jurisdiction of a local government is divided into a number of valuation zones. Land parcels within a zone are similar in price and site characteristics, and presumably influenced by the same market forces. Every year, data on transactions involving land and improved properties are collected. For sales of improved properties, the current value of improvements, decoration and equipment costs and expected profits from investment in improvements are deducted from the sales price to arrive at land value. The median land value per square metre for the sampled transactions within a valuation zone is deemed as the announced current land value for that zone. It is common practice for the assessed values for all land parcels within the same valuation zone to be identical. There were a total of 3 049 valuation zones in Taipei City as at 2006.

Compensation for the expropriated land may be increased by a certain percentage. The increase in compensation is through the deliberate upward adjustment of announced current land value prior to expropriation. This additional compensation was initially introduced largely because the announced current land value was at that time believed to be substantially less than the market value. The payment in addition to the announced current land value is used to narrow the gap between market value and compensation amount. The percentage increase is decided with reference to market value by the competent authorities and submitted to a valuation committee for approval.

*Table 1. Table of replacement costs.*

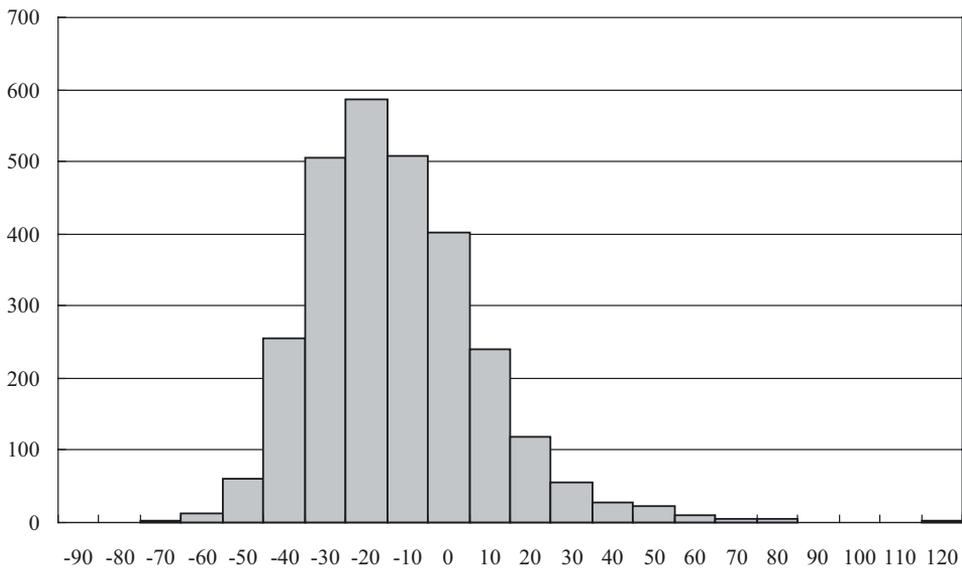
No. of storeys	Concrete			Concrete and brick		
	Upper standard	Middle standard	Lower standard	Upper standard	Middle standard	Lower standard
	(Eurodollars/m <sup>2</sup> )					
1	332	308	296	320	296	284
2	332	308	296	320	296	284
3	368	332	308	356	320	296
4	368	332	308	356	320	296
5	368	344	320			
6–8	493	448	408			
9–10	493	448	408			
11–12	493	448	408			
13–14	493	448	408			
15	493	448	408			
16	581	528	456			
17–19	581	528	456			

Note: Every structure is classified by officials as upper, middle or lower standard by field inspection with reference to the cost manual.

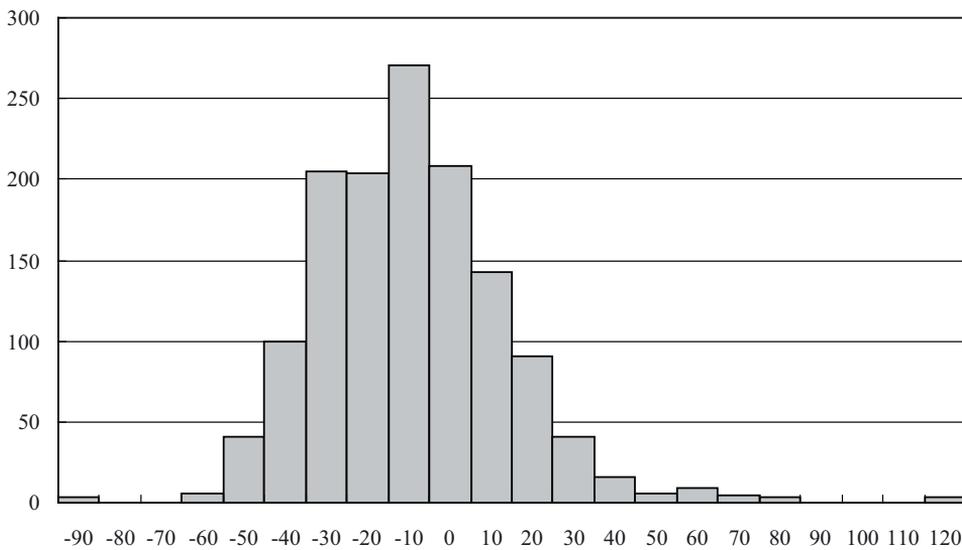
Compensation for improvements is based on the replacement costs new without regard to depreciation. Replacement costs new for various types of properties are specified and announced regularly by local governments. The compensation amount for structures under expropriation is related to its structure, materials and quality of interior fixtures such as lighting. Table 1 illustrates the figures for replacement costs for two popular types of structure as specified by Taipei City authorities. These figures are used for calculating the compensation for structures.

#### **4 How are properties protected through compensation?**

As illustrated above, the amount of compensation for a property acquired by the government is determined by ad hoc valuation rules. In other words, how much an owner will receive is to a large extent known in advance. This raises an interesting question (and one that is empirically testable): under the current system, what is the relationship between rule-set compensation for a property if it has been expropriated and its corresponding market value? The ideal relationship will be that the ratio of compensation to corresponding market value is close to a value of 1 if the market compensation principle is applied. The above ratio would



*Figure 1. Divergence ratio distribution for Nei-Hu district.*



*Figure 2. Divergence ratio distribution for Nan-Kan district.*

exceed 1 if the full compensation principle were employed. Moreover, regardless of whether the market value or full compensation concept is preferred, the ratios among properties should remain stable or vary only marginally.

In order to verify this, we shall use data from property sales that were transacted from 1994 to 2004 in the Nei-Hu and Nan-Kan districts of Taipei City. A total of 2,823 sample sales are located in the Nei-Hu district and 1,354 in the Nan-Kan district. Data on them are collected by the city's Department of Land Administration for the purpose of determining announced current land values. In addition, the present structure value on a site is obtained from the replacement

costs table promulgated by the Taipei City authorities. A summation of the announced current land value and current structure value for a property is assumed to represent the compensation a property owner will receive should the property be acquired through compulsory purchase. However, it is worth noting that an additional 20 percent of the announced current land value is paid on top of the original current value and present structure value as expropriation compensation. A 20-percent difference is the value gap that the Taipei City authorities believe exists between market value and announced current land value. It has become common practice to add a certain percentage of the announced current land value into the compensation in many cities. The percentage of additional compensation has remained at 20 percent in Taipei City for several years.

A divergence ratio indicates the extent to which the compensation value concluded by official assessors deviates from that by market participants. This ratio is arrived at by first deducting the sales price from estimated compensation (120 percent of current land value plus reproduction costs new); this is then divided by the sales price. The divergence ratio can be shown as an equation: divergence ratio = (estimated compensation – sales price)/sales price.

Compensation for expropriated properties within the Nei-Hu district was shown to be on average 17.53 percent below the respective sales price. Compensation in the Nan-Kan district was also lower than the sales price – although by a slightly smaller margin of 14.31 percent. Approximately 82–86 percent of property values (in market terms) are compensated under current legislation.

We then looked at the distribution of the individual divergence ratios to examine the compensation equity between properties. Figures 1 and 2 exhibit the distribution of divergence ratios for sample properties in the Nei-Hu and Nan-Kan districts, respectively.

The equity issues can be better understood through the breakdowns of the over- and under-market compensation for these two districts described in Tables 2 and 3.

*Table 2. Breakdown of compensation levels for Nei-Hu district.*

	Divergence from sales price (%)												
	0–10	11–20	21–30	31–40	41–50	51–60	61–70	71–80	81–90	91–100	101–110	111–120	121–130
	<b>(No. of properties)</b>												
Over	402	239	120	55	29	23	9	5	4	0	1	1	3
Under	507	586	505	256	61	12	3	1	0	0	0	0	0

*Table 3. Breakdown of compensation levels for Nan-Kan district.*

	Divergence from sales price (%)												
	0–10	11–20	21–30	31–40	41–50	51–60	61–70	71–80	81–90	91–100	101–110	111–120	121–130
	<b>(No. of properties)</b>												
Over	208	143	91	41	16	6	9	4	3	0	0	0	3
Under	271	204	205	100	41	6	0	0	3	0	0	0	0

Valuation variations are acknowledged widely in literature (for an excellent review, see Evans, 1995), so a 10–percent variation from the sales price (over or under) is regarded as an acceptable margin of valuation error. After allowing for a 10-percent error margin, approximately 50 percent of sample properties in Nei-Hu district are under-compensated; that is, they receive compensation of less than 90 percent of their sales price in the market. In contrast, around 17 percent of sample properties are paid compensation with a price premium of more than 10 percent. In some extreme cases, properties are only compensated at 20–30 percent of their sales prices. Conditions in Nan-Kan district are not much different. Around 41 percent of the properties are expected to receive compensation with at least a 10-percent price discount. Nevertheless, slightly over 23 percent of the properties are likely to receive compensation with a 10-percent price premium or more.

The overall numerical evidence underlines a few issues that require further discussion. The compensation set by law is generally lower than market sales price and by a margin of some 20 percent. This seems to suggest that there is a widespread under-compensation problem. What is likely to make the situation worse is that the divergence between compensation and sales price is not consistent. As a result, the compensation paid to a small (but significant) share of property owners deviates substantially from the average figure. One thing that we may find comforting is the similarity of compensation problems in these two districts, which suggests again that systemic factors such as valuation methods are likely contributors to these similar problems.

## **5 Conclusions**

Taiwan provides an interesting case study of where ad hoc valuation rules are in place to determine the compensation value. As the valuation rules for compensation for land are also employed for taxation purposes, land values are liable to be kept low deliberately. In response to this under-valuation, the local valuation committee (made up of valuation experts from government and professional bodies as well as academics) is entitled to raise the announced current land value for properties to be expropriated in the near future. This mechanism adds flexibility to the seemingly rigid ad hoc valuation rules in order to ease owners' pain. This can be seen as a conscious action taken by the government in order to bypass the problems embedded within the ad hoc valuation rules. On the other hand, the administrative courts generally show deference to decisions made by the valuation committee. A recent study finds that valuation results approved by the valuation committee are rarely overturned by the administrative courts when they are in dispute (Chen, 2004). The administrative courts tend to focus on the issue of due process – whether the government has followed the legal procedures – but are reluctant to touch on the issue of just compensation. One of the main reasons is that, by its legal definition, the announced current land value represents the market value. Judges in the administrative court do not seem willing to challenge this definition. We believe that their passive attitude towards announced current land value in large part results from their lack of knowledge of property valuation.

Property owners in Taiwan are required through valuation practices rather than by legislation to give up part of their property value in the public interest. Compensation items allowed by legislation consist of payments for land, structure, investment in land improvements, business losses and moving expenses. It is implied from past practice that all owners have the obligation to sacrifice part of their property's value. It is difficult to judge on theoretical grounds as to which compensation principle is superior to others. However, there is no doubt that everyone should be treated equally – so, compensation should be equal between property owners. Our hypothetical expropriation example shows that property owners are in fact not treated equally. The ratio of the compensation value to its corresponding market value (sales price) varies and the ratio deviations are significant. This phenomenon raises the issue of equity concern among property owners. Some 30 years ago, Munch (1976) reported on the undesirable results of the United States compensation system. Our study provides yet another piece of evidence that uncovers inequity in expropriation compensation within an ad hoc valuation setting.

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