Are Private Takings Efficient?
: An Empirical Investigation*

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<Abstract>

In many countries, eminent domain power can be exercised by the private sector. In the case of the U.S., *Kelo* has triggered intensive debates with a huge backlash. In Korea, private takings are allowed in about 50 laws. The most common supporting argument is that private development contributes to a wide variety of benefits to the locality. However, we argue that inadequate public oversight, together with profit-maximization motives, leads to more egregious abuse of takings by private condemners. We provide empirical evidence that private takings can cause more irregularities. These findings are expected to lend beneficial insights to countries that intend to use private takings as an effective instrument in providing public goods rapidly.

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I. Introduction

Eminent domain power can be exercised by private entities as well as by the public sector. There are two most representative ways this happens. First, private entities can 'directly' take lands as long as they fulfill the conditions stipulated in relevant laws. Second, the private sector can ultimately go through government; state or local governments take lands for private developers. In the U.S., for instance, these government-mediated takings are also often called 'public-private takings' (e.g., Kulick, 2000; Scott, 2003; Cohen, 2006; Bell, 2009), and include famous cases such as '*Poletown Neighborhood Council v. City of Detroit*' [304 NW2d 455, Mich 1981] and '*Kelo v. City of New London*' [545 US 469, 2005]. Thus, according to Bouckaert and De Geests' (1995, p. 463) broad definition, these two belong to private takings.

This paper mainly focuses on the first 'direct private takings,' but hereafter we shall just call them 'private takings.'[1] According to our own survey, private takings are permitted by 49 individual laws. This is possible because §4.8 the 'Korea Land Takings and Compensation Law (KLTC),' which is the baseline law governing takings in Korea, stipulates simply that "*other laws also can designate lands to be taken.*" Private takings, thus, are allowed in a great deal of public constructions ranging from government offices to roads, railroads, industrial complexes, apartments, business cities, universities and various sporting facilities including golf courses. In fact, private takings have been so frequent and commonplace in Korea that some of taking drew wide public attention in the 2000s. Some landowners challenged the constitutionality of private takings.

[1] In other words, 'private takings' as the term is used in the current paper are a most extreme form of takings where eminent domain power is exercised by private entities. Nonetheless, as shown below, if there is any merit in public-private takings, the merit tends to be reinforced in direct private takings. Also, the literature opposing to public-private takings can be readily applied to direct private takings.

However, the Constitutional Court of Korea upheld eminent domain power by private entities in itself.[2] Although a few decisions required stricter conditions to be met in later cases, there have consistently been strong dissenting opinions among justices at the Constitutional Court who are concerned about the abuse of taking power.

The purposes of this paper are to probe the efficiency of private takings and to empirically investigate the theoretical conjectures. Specifically, as for the latter, we will utilize a dataset of 259 big-scale taking projects for industrial complexes in Korea. The sample has several merits, a representative example of which is that the proportion of private takings was about half of the entire dataset. It is subsequently shown that post-taking irregularities such as 'cancellations' and 'changes in project runners' tend to be more serious in private takings *ceteris paribus*.

The order of the paper is as follows. Section II outlines the legal provisions for private takings for a few representative countries, and verifies the fact that private takings are allowed very generously in Korea. It also highlights that the scrutiny on the public-interest criterion is drastically weakened in private takings as compared with public takings. Competing opinions on private takings by the constitutional judges are explained. In Section III, we first briefly summarize the literature, and make conjectures based on reasonable assumptions about the economic incentives of private entities that intend to execute eminent domain power. In particular, the main hypothesis is drawn that private takings can be more inefficient than public takings, and cause irregularities after taking, such as more cancellations and changes in project runners. Section IV empirically verifies to a significant extent the main hypothesis that private takings can

[2] "*§23.3 [the eminent power clause] of the Constitution … does not specify the subject of taking. Thus, we should not confine it to the public entity such as the state.*" (2007_C.C_BA114, [ ] added)

cause more irregularities such as ‘cancellations’ and ‘changes in project runners.’ Section V concludes with policy implications.

II. Legal Aspects of Private Takings

1. Legal Provisions for Private Takings: A Brief Comparison

Due to data constraints, we briefly look at legal systems for private takings across only six countries (Australia, Germany, Japan, the U.K., the U.S., and Korea). First, ‘direct private taking (DPT)’ is allowed in Korea, Germany, the U.K., and the U.S. In the last three countries, however, the scope of DPT is limited to standard social infra-structures such as railroads, roads, electric power plants, and harbors. Private taking appears to have been allowed because government was not able to meet the increasing demand for infra-structures in the process of rapid industrialization, or partly because these countries undertook privatization of public corporations.[3] Also, in the U.S., DPT is legal in only 11 states (Turnbull, 2012, p. 311). By contrast, the scope of private takings in Korea is very wide, extending even to small sporting facilities, golf resorts, and housings, to name a few.

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3 The Mill Acts in the 19th century in U.S. are a representative example of the former (Scheiber, 1973; Epstein, 1985), while the full-scale privatization of public corporations (e.g., petroleum, rail, and gas in the U.K. and electronic power, railroad, and telecommunication in Germany) over the 1980s to 1990s is a good example of the latter (Office of the Deputy Prime Minister, 2004, p. 7, Voss, 2010, p. 8). Nevertheless, public projects delegated to the private sector are strictly subject to specific legal constraints such as the Transport and Works Act in the U.K and the Energy Industry Act in Germany. In contrast, private takings are hardly allowed in Japan, and, even in the case of public takings, the Land Takings Law, which lists up public projects very narrowly, encourages negotiations rather than takings (Azuela, 2007, p. 16; Lum, 2007, p. 462). Australia, by § 6 of the Lands Acquisition Act, confines the acquiring authority as the Commonwealth authority. It also makes clear that an eligible authority excludes an incorporated association or society, an incorporated company, and a body of trustees.

Second, government-mediated 'public-private taking (PPT)' is, in principle, allowed in all countries. It has much to do with promptly supporting regional development projects particularly associated with urban regeneration. In this regard, PPT is often regarded as a subsidy to developers in the form of supplying lands for cheaper prices (Fischel, 1995, pp. 80-84; Miceli, 2011, pp. 68-71),[4] and the primary mediators of PPT are local government or (public) development corporations (Schill, 1997; Johnson, 2007). But the requisite conditions differ across countries. In the U.S., PPT is allowed in most states, but more restrictions have been imposed since *Kelo*.[5] PPT is allowed in Japan and Australia, but only as an exception, i.e., when public and private entities are co-participants in a project.[6] Further, the taking decision with a strict scrutiny on the public necessity requirement is made by the central government, i.e., by the Minister of Land, Infrastructure, Transport and Tourism in Japan and by the Minister for Finance and Deregulation in Australia. In the U.K., the taking decision in the form of a compulsory purchase order (CPO) can be made by local authorities, the highway agency, regional development agencies. Yet, in the presence of objections to CPOs, the

[4] PPT causes huge public attention when it is often recognized as giving privilege to a private entity in many countries. Examples include '*Kelo v. City of New London*' [545 US 469, 2005], '*Boxberg*' [BVerG, 1 BvR 1046, Germany, 1985], and '*Alliance Spring Co. Ltd. and Others v. the First Secretary of State*' [EWHC 18 UK, 2005]. In fact, according to Cypher and Forgey (2003, pp. 259-261) that studied takings by American municipalities, 49% of the lands taken were transferred to private real estate developers and, in 94% of the sample, the transfer prices were lower than the compensation amounts to land owners.

[5] Refer to http://www.ncsl.org/research/environment-and-natural-resources/eminent-domain-overview.aspx for various responses to the *Kelo* case.

[6] Refer to Kotaka and Callies (2002) and Lum (2007) for Japan, and to Mangioni (2009) and Finlay (2010) for Australia.

decisions are subject to the final approval by the Secretary of State upon finishing public inquiry (Office of the Deputy Prime Minister, 2004, p.13-14). In Germany, PPT can be exercised based on the 'land-use plan' which is determined only after sufficient scrutiny, as stipulated in the planning law, on specific scopes and methods for efficient land use in the future (Voss, 2010, p. 8).

By contrast, PPT is virtually recognized as public takings in Korea, and this is one of the reasons we will call only DPT as 'private takings' below. Thus, we can conclude that in Korea private takings are allowed to the greatest extent both in the scope of projects and the type of condemnation. Further, in other countries there exist various *ex-ante* and *ex-post* mechanisms to make them comply with the public-interest criterion. Also, our survey, if not of exhaustive nature, reveals that scrutiny concerning the public-interest criterion in other countries tends to be stricter in the case of private takings than in public takings.[7]

This hardly applies in Korea. Let us explain only one primary reason here. In Korea, condemners must obtain an administrative disposition called the 'permission of a public project' according to §2.7 of KLTC. The disposition is equivalent to finalizing the scrutiny on the public-interest criterion, and so is followed by the process of compensation to landowners. However, this filtering process by the Minister of Land, Infrastructure, and Transport can be effectively circumvented by the so-called 'quasi-

[7] As discussed earlier, scrutiny concerning the public-interest criterion is strict in the U.S., Germany, and the U.K. as well as in Japan and Australia where DPT is prohibited. The public use test has been strengthened especially since *Kelo*. See Epstein (http://legalworkshop.org/2009/03/19/not-so-private-takings-a-response-to-%20bell) or Institute of Justice (http://www.ij.org/five-years-after-kelo-the-sweeping-backlash-against-one-of-the-supreme-courts-most-despised-decisions).

permission of a public project' based on §4.8 of KLTC.[8] In other words, the quasi-permission process bypasses the stricter process. Our own examinations of the entire body of laws, as explained in the next subsection, has revealed that there are many such circumventions for takings, and also that such circumventions are being used in the majority of private takings.

2. Private Takings in Korea and Related Controversies

According to our first-time examination of all substantive laws provided by the website of 'Korean Laws (www.law.go.kr)' of the Ministry of Government Legislation, takings were being allowed in as many as 100 laws as of June 2013. The scope of public projects was indeed widely distributed from textbook-type taking constructions to projects that would befuddle most people to 'why' and 'how.' Taking clauses were even found in a few laws that are mainly concerned with the organization and operation of public firms. In such cases, what the public firms do, with some additional requirements, automatically grants the firms eminent domain power.

Most striking is that many projects specified in these separate laws overlap precisely with those already stipulated in detail by KLTC. We suspect that a major motivation behind this lies in the incentive of project runners or local governments to do away with the stricter process of permitting a public project (§2.7 of KLTC) above. It is publicly

[8] §4.8 of KLTC stipulates that a project is regarded to have received the 'permission of a public project' if public entities such as heads of local governments, who are delegated the power from the Minister of Land, Infrastructure, and Transport, simply endorse the actual plan of designating the area for numerous projects allowed by as many as 81 individual laws. The 'quasi-permission of a public project' refers to this simplified administrative disposition. Although this clause was challenged, the Constitutional Court also upheld it as it allegedly speeds up the completion of public projects. Nevertheless, there are still many commentators who are critical of the decision.

known that the overwhelming majority of takings in Korea are now conducted through this quasi-permission, and, consequently, we strongly argue that the scrutiny on the public-interest criterion has been rendered ineffectual.

More intriguingly, we found that, out of these 100 separate laws, private takings were possible in as many as 49 laws. Private entities are able to take other private owners' lands for a variety of reasons: school facilities, water supply plants, marinas, and warehouses, just to name a few.[9] However, the predominant types of projects were associated with developing areas for industrial, commercial, residential, or even cultural purposes. The representative example of such laws is the 'Industrial Location and Development Law.'[10] Further, although a certain qualification (e.g. possession of a relevant license) is often required to be eligible for becoming private condemners, there is no single requirement in as many as 22 laws. Notice also that the quasi-permission process is available in all 49 laws. There is no official statistic, but we are fairly confident that every private taking in Korea has been conducted through these individual laws. Taking all of this into account, we can strongly infer that stringency on the public-interest criterion must have been even further undermined in private takings.

Given these backgrounds, debates intensified from the 1980s regarding whether private takings can be justified on the ground of public necessity or public interest. Later, landowners also challenged the constitutionality of private takings. However, the Constitutional Court of Korea firmly upheld eminent domain power by private entities

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[9] At least 5 laws out of these 49 allow private takings for generally developing specific 'regions' such as Saemanguem and Incheon, or for specific 'events' such as international boat races or military athletic meets, not to mention Universiades and the Olympics.

[10] Private taking-power provided by this law appears to be so extensive that we will analyze the case of developing industrial complexes in Section IV.

in the 2007_C.C_BA114 case which involved §11 of the 'Industrial Location and Development Law.' This decision was solidified in the 2008_C.C_BA166 case which involved §2 and §6 of the 'National Land Planning and Utilization Law.'

Apart from the quote mentioned in the Introduction in favor of the constitutionality of private takings, the main arguments for them are two-fold: First, their 'legislative purposes' conforms to the public necessity condition stipulated in the Constitution. Second, the 'appropriate means' guarantee to protect the interests of the condemned, as private takings should also be subject to the same due procedural requirements for public takings.

> "*This clause in question contributes to a healthy growth of the national economy by harmoniously supplying industrial locations and reasonably allocating industries ... and to proper promotion of diversifying industrial complexes throughout the nation ... The clause is thus* ***consistent with the public necessity condition*** *stipulated in the Constitution.*" (2007_C.C_BA114) "*Projects for city planning, in themselves, fulfill* ***the public necessity requirement*** *... The taking clause is therefore constitutional because of* ***just legislative purpose***." (2008_C.C_BA166) "*[Just as in public takings]all phases* ***are subject to due process****, condemners must pay just compensation, and our legal system* ***provides effective remedies*** *such as administrative litigation to the condemned if there is any specific defect embedded in the administrative disposition of permitting takings*." (2008_C.C_BA166) (*[ ]* and emphases added)

These two decisions triggered huge debates among legal scholars in Korea. A group of them provided rationales for private takings which are almost identical to the arguments made by the majority of the Constitutional justices above. The opposing group's counter-arguments addressed three issues: risk of compulsory redistribution,

unaccountability for public necessity, and exclusive enjoyment of surplus. Although there are several scholars, lawyers, and judges in this opposing group, let us briefly focus on the dissenting opinions of Justice J. Kim in both decisions, which encapsulate the opposition's three-fold arguments fairly well.

> "*When the range of public necessity is defined **too broadly**, a land may often be **transferred forcibly from its owner to a third private party** whenever it is shown that the latter can make better use of it … which causes **a risk of contradicting our constitutional basis of the protection of property rights***." (J. Kim dissenting in 2008_C.C_BA166) "*Private takings can be constitutionally justified only with institutional arrangements **that consistently protect the public necessity condition** …*" (J. Kim dissenting in 2008_C.C_BA166) "*There should be guarantees that the surplus from the project can be shared by the relevant community such as … Through a solid institutional device, a splendid harvest **should be shared by the entire community rather than exclusively by the private condemner***." (J. Kim dissenting in 2007_C.C_BA114) (emphases added)

Note that these counter-arguments above, especially the first, are very similar in spirit to the 'reverse Robin Hood fashion' argument made by Justice O'Connor: "*Any property may now be taken for the benefit of another private party, but the fallout from this decision will not be random. The beneficiaries are likely to be those citizens with disproportionate influence and power in the political process, including large corporations and development firms.*"[11] We can infer from all his entire dissenting

[11] His second concern about the contingency where private condemners become unaccountable for the public necessity condition afterwards appears to be almost identical to the argument by Judge Ryan who dissented in '*Poletown Neighborhood Council.*' Further, his third concern here shares exactly the principle represented in the famous tale of two pies in Epstein (1985, pp. 3-5).

opinions and personal conversation that Justice J. Kim intended to admonish against the danger of people taking others' property with impunity. Economic reasoning in Section III lends support to his concern.

III. Economic Perspectives on Private Takings

1. Arguments in Favor of Private Takings

Various rationales lie behind private takings. First, as most commonly claimed by local governments and courts, private development activities contribute to creating a 'wide variety of benefits to the region' in question. The representative example is *Kelo.*[12] Second, the private sector's superior efficiency in production is merited, based on the compatibility with its profit-maximizing incentive, because they can reap the surplus from completed development projects (Bell, 2009, p. 521). Also, private entrepreneurs are perceived to be less burdened by corruption of politics, distortions of the political process, and rent seeking (Bell, 2009, p. 575). Third, the advantage in the private entities' funding ability is also lauded *vis-à-vis* the public sector that has to undergo inefficiency-causing taxation (Shavell, 2010, p. 18). Finally, the granting of eminent

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[12] "*[T]he City has carefully formulated an economic development plan that it believes will provide* ***appreciable benefits to the community****, including* ***… new jobs and increased tax revenues*** *…*" (Justice Stevens in *Kelo*, emphases added). It is well known that the so-called 'conceivable public purpose' argument was upheld repeatedly in the U.S. Supreme Court decisions including '*Berman v. Parker*' [348 U.S. 26, 1954] and '*Hawaii Housing Authority v. Midkiff*' [467 U.S. 229, 1984]. According to our survey on many court decisions in Korea, this conceivably benefiting-the-public rationale has been very often used, too, and further reinforced by judicial deference to legislative judgment.

domain power to private developers is justified on the mere ground that holdouts can threaten private projects as well (Miceli, 2011, p. 46; Brooks and Lutz, 2011).[13]

The arguments above might be 'generally' correct in describing the nature of the private sector and the outcome of private development plans. In the context of takings, these arguments can hold true when core requirements for takings are assumed to have been met: that is, public interest, high transaction costs, and just compensation. Although, in the next subsection, we make economic scrutiny of private takings under the assumptions that these basic conditions are mostly met, critics have questioned whether such requirements are in place indeed. In particular, they express doubt about the assumptions of public interest and high transaction costs, and subsequently suggest that the private takings may result in inefficiency.

First, as Bell (2009, p. 522) correctly observed, the requirement of public interest (or necessity) has been expanded from strict 'public ownership or use' to 'public purpose or interest.' However, critics argue that there is a risk of the occurrence of private takings that not only fail to meet the relaxed requirement but also cause a multitude of rent-seeking activities.[14] The primary reason is that the ambiguous definition of 'public interest' allows for a broad interpretation to include boosting regional development, increasing employment, or raising tax revenues. This ambiguity allows condemners to hide private interests and distort the taking procedure (Kelly, 2006, p. 34). This

[13] Miceli (2011, p. 54) goes further that, while private takings are more likely to be used as the demand for economic development increases, as the opportunity cost of land decreases, and as part of a state policy to promote economic growth, there is in contrast no evidence that the use of private takings reflects either a political or a racial bias.

[14] Refer to Merrill (1986), Kelly (2006; 2009), Somin (2008), Kim and Park (2010), Eagle (2011) among others for rent seeking in the process of takings.

argument is reinforced considering incomplete information on the part of the condemned and sometimes public agencies in charge of approving the takings.

The second criticism is concerned with the common assumption of high transaction costs. Scholars such as Bell (2009, p. 530) and Miceli (2011, p. 46) presuppose that the holdout obstacle in private takings is as serious as in public takings. Regardless, private condemners possess varying ways to overcome holdout. Representative examples include transactions through secret agents (Merrill, 1986, p. 81; Cohen, 1991, p. 352; Kelly, 2006, p. 1), land assembly districts, or auction mechanism (Heller and Hills, 2008, p. 1473; Lehavi and Licht, 2007, p. 1735; Kelly, 2011, pp. 364-368). In fact, as claimed by Benson and Browns (2010, p. 152), actual market participants have discovered many ways to induce people to reveal their relative preferences in situations similar to those that would characterize purchases of contiguous parcels of land from multiple owners by private firms. The bottom-line thus is that holdout, particularly in private taking, is not as severe as rather academic writings tend to suggest.[15]

Unfortunately, the existing empirical work on this issue is scarce. Despite our long surveying effort, Diop et. al (2010) and Kerekes (2011) appear to be only empirical analyses that bear relevance, although remotely, to the major tenet (i.e., relative efficiency or inefficiency of private takings) of our own work below. They attempted to explain differences in the frequency of private takings across U.S. states from 1998 to 2002, both utilizing the identical data provided by the Castle Coalition. Corruption was treated importantly in both studies. While the proxy for corruption did not show a

[15] Moreover, a landowner's holdout incentives for sellers might be weaker, particularly in the case of selling only part of his land, as the value of the remaining land can be increased with the development (Engel, Fischer, and Galetovic, 2002).

significant coefficient in Diop et al. (2010), the same proxy had significantly large explanatory power in Kerekes (2011) upon its adjustment reflecting population sizes across states.[16] The result from Kerekes (2011) shows a high correlation between corruption and the frequency of private takings. It can thus imply a likelihood of the eminent domain power to be abused in private takings, although, for a more solid conclusion, a comparable study focusing on public takings as well would be required.

All in all, despite the very limited amount of academic work, the relative merits of private takings have so far been hardly validated at least empirically. To be sure, more work should be necessary for a decisive conclusion. An empirical investigation would be especially beneficial if its samples consist of public and private takings for the identical type of development project as it should warrant the *ceteris paribus* condition in estimation. In fact, we design such setting of empirical investigation in Section IV.

2. Plausible Inefficiency of Private Takings

Assume that the core requirements for takings such as public interest and high transaction costs are met. Causes for the potential inefficiency of private takings are at least three-fold. The first is a socially inefficient choice of land. Suppose that the condemner can freely choose the location of land to take. A benevolent government supposedly chooses land to maximize social welfare, but private condemners would

[16] Both studies used the identical proxy for corruption which was the number of convictions of state and local public officials from 1976 to 2002. Diop et al. (2010) simply used its annual average, whereas Kerekes (2011) calculated its rate per 100,000 populations. Another political variable of interest was the method to select the state supreme-court justices. Elected justices, rather than appointed justices, were found to be negatively correlated with the dependent variable, for which the author explained that the former tend to be more sensitive, for election, to the cases of private takings that may cause a great deal of resistance by landowners as potential voters.

choose land to maximize profit (Turnbull, 2012, p. 3). While they prefer under-priced lands that would mainly lead to greater profits, they are hardly concerned with other factors such as the subjective value of landowners (Merrill, 1986, p. 107).

The possibility of an inefficient choice of land is higher in private takings than in public takings even if we suspend our assumption of government neutrality. Public servants have an incentive to choose locations with a lower subjective value of landowners *ceteris paribus*, partly because they cannot directly appropriate profits, and partly because strong dissent from landowners and constituents can have adverse impacts on their political careers (Somin, 2008, p. 1189). On the contrary, private condemners, being able to appropriate profits from land price increase (Kelly, 2006, 2011), persistently endeavor to obtain under-priced lands sometimes with illegal activities including bribes, rebates, and illegal campaign support (Kelly, 2009, p. 178). To be sure, illegal activities can take place in public takings as well, but the process of private takings tends to be more opaque, which decreases the detection probability of illegal activities. Even if an appeal is made by landowners to a public agency in charge, the agency as a third party now can be less cooperative.[17]

The second source of inefficiency is the risk of excessive taking. It is well known that a major rationale underlying just compensation for taking is to discourage excessive taking due to fiscal illusion. Nonetheless, it is also established that even compensation based on market prices can cause under-compensation bias (e.g., Ellickson, 1973; Epstein, 1985; Burrows, 1991; Cho and Kim, 2002; Wyman, 2007). Also, Turnbull

[17] Local governments or politicians of the jurisdiction in question often build partnership with private condemners because of the expected outcomes of a private taking such as increases in regional development, employment, or tax revenues (Kanner, 2007; Mihaly, 2007). Further, in a similar context, they may sometimes endorse a private taking which does not fulfill the public interest requirement.

(2012) argues that, based on the Averch-Johnson effect, condemners have incentives to invest overly in physical assets such as lands under rate regulations.

In this regard, we submit that the possibility of excessive taking can be higher in private takings. Given the same magnitude of under-compensation bias, private condemners have strong incentives to take as they can enjoy profits, for example, by selling the land. This phenomenon has been termed as 'speculative takings' by Cooney (1996, p. 752). Especially in Korea, as long as the original purpose of the taking is maintained, landowners are not eligible for the so-called 'repurchase right' at all (Kim and Park, 2010). Thus, profits from land transactions are solely expropriated by the private condemners. In contrast, public takings are generally subject to much stricter guidelines against selling the lands condemned, and potential profits cannot be easily enjoyed by public servants either.[18] Overall, private takings are associated with a higher likelihood of mere arbitrage.

The third source of inefficiency, on which our empirical work will mainly focuses, stems from private condemners' various forms of 'opportunism.' It is our own observation that the public-interest requirement, at the initial stage of taking procedures, tends to hinge overwhelmingly on the official purpose of the taking *as it is announced*. However, we witness that, in reality, there often exists a huge information gap concerning *other* critical components of the public-interest requirement such as the

[18] Even if public entities profitably sell the lands to a third party, they tend to be immediately faced with media coverage very critical of such transactions. In fact, this has been the case in Korea where a headline of the coverage reads like "*Government Earning a Huge Windfall from Land Brokerages*." Knowing this, public servants are relatively more cautious about speculative takings. Of course, this practice also violates the important principle of 'sharing a splendid harvest from taking' asserted by Justice J. Kim in his dissenting opinion as explained earlier.

precise value of the proposed project and the likelihood of actual completion (e.g., condemners' technical expertise or financial capacity.) Our observation is consistent with Somin's (2008, pp. 1188-1189) claim that the complexity of calculating benefits and costs and the time lag, in the sense that the value of taking can only be assessed after several years, tend to make scrutiny on these critical components not thorough at all. Knowing this, condemners inherently have incentives to undertaking opportunism, the representative example of which is 'adverse selection.' Note also that private developers, compared with public servants, are inherently less accountable for the outcome of taking; they are only responsible for their own pecuniary losses even under the worst circumstance. Therefore, the (severe) informational gap in combination with less accountability suggests that the problem of adverse selection is more serious in private takings.

Furthermore, local governments, which usually expect more jobs and tax revenues to result from private takings, provide subsidies in various forms. They range from tax privileges to loan guarantees, basic infra-facilities, lifting of extant regulations, and MRG (Minimum Revenue Guarantee). However, these supports can prompt private developers to exercise less precautionary efforts as the supports may be perceived as unconditional insurance. That is because its marginal benefit, i.e., reduction in the expected losses, will decline. Thus, given the same cost function of precautionary effort, the privately optimal level of precaution falls short of the social optimum with the standard form of a concave benefit function. This increased possibility of project failure is a typical example of 'moral hazard.'

Both types of the condemners' opportunism - adverse selection and moral hazard - increase the occurrence of irregularities in the progress of public projects *via* taking. The two most tangible examples of the post-taking irregularities are 'cancellation' and

'change in the project runner' by selling-off or disposition through public seizure and auction. Both incur social costs: The former sinks all pre-investments by developers and local governments, while the latter, particularly in the case of public seizure and auction, frequently causes massive delays in project launching and completion.[19] Yet, it is by no means easy for a public agency in charge to curb such opportunism, whether due to incomplete screening/oversight or due to the difficulty in designing a contract that deters them from exercising insufficient precaution. Moreover, this opportunism appears to be reinforced through partnership with private condemners built particularly by politicians in local governments as emphasized by Kanner (2007). To conclude, private takings can incur higher inefficiency in terms of more cancellations and changes in project runners as compared with public takings in the Non-Coasian world. Of course, this conjecture should be subject to empirical investigation to which we now turn.

IV. An Empirical Investigation

1. The Data

We test the main hypothesis in Section III.2 that private takings can be more inefficient. Among numerous public projects that can be conducted by private entities, we choose 'general industrial complexes' for our analysis for various reasons. First of all, they are

[19] In most countries, right upon the announcement or permission of a taking, landowners are subject to severe restraints in the use of their lands until they finally leave. In Korea, there is no compensation for such regulatory takings and their durations are often longer than a multitude of years. Types of regulatory takings, in reality, are really wide-ranging; for instance, they include complete bans on road and bridge construction and repairs, discontinuation of financial support for projects to improve agricultural villages, restraints on changing businesses, prohibitions against using lands for new purposes and against the growing of perennial plants and trees, limitations on new construction and enlargements of housing, and effective interruption of secured loans, to name a few. The obvious under-utilization of lands for longer durations certainly indicates higher social costs.

mostly big-scale taking projects.[20] Second, the frequency of takings for industrial complexes was large enough for parametric estimation. Third, it was noteworthy that private takings comprised about half of the total over the sampling period. Finally, takings for general industrial complexes are evenly distributed across the country.[21]

Post-taking events for industrial complexes usually proceed over three time phases. Compensation starts at τ_1 when an area is officially designated with a taking decision. At τ_2 compensation is completed and construction subsequently starts. The construction is finalized at τ_3 and factories move in. This is the 'regular' process. Such regular process is not only assumed in most academic literature, but is also the scenario imagined by of most policy makers.

However, in reality, 'irregularities' take place often right after τ_1. Besides payment of compensation is being routinely delayed, there are often 'changes in the project runner.' Thus, a different entity completes the complex at τ_3. A more drastic form of irregularities is 'cancellation' of the project. A typical example is simply to give it up due to severe financial distress after a few years. Cancellation makes sunk all pre-investments by the condemner and local government, while change in project runners often causes massive delays in project launching and completion. Both irregularities also incur more social harm in terms of regulatory takings (i.e., all sorts of restriction on land use) strictly imposed upon landowners from τ_1.

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[20] Thus, the public interest requirement and high transaction costs are warranted to an extent. The big scale itself also helped us trace several pieces of information related to each taking.

[21] There are three more types of industrial complex: national, high-tech municipal, and agricultural-manufacturing (Industrial Location and Development Law). However, these three types are not only developed predominantly by the public sector, but tend to be concentrated in certain regions often with specific purposes. Thus, we focus on the general type, and refer to them simply as 'industrial complexes.'

We call these two contingencies ‘ *CoC* (**C**ancellation **o**r **C**hange in project runners),’ regard them as indications of inefficiency, and inquire about factors that affect the occurrence of *CoC* below.

The sample period is from 2003 to 2010. The total number of takings used to be in the single digits, but, on the premise of ‘balanced growth’ by President M. Roh’s new administration in 2003, it jumped to 16 that year and continued to grow. 2010 was fixed as the last year for τ_1 in the sample because we intended to reserve a follow-up period to observe *CoC* for 3 years to the end of 2013 in order to minimize the right-censoring problem.[22] The ‘Industrial Land Information System (ILIS: http://industryland.or.kr/)’ was utilized to obtain most basic facts about these observations.

Table 1. Post-Taking Irregularities in Private and Public Takings

	Industrial Complexes (A) (%)	Cancellation (B)		Change in Project Runner (D)	(= B+D) ([B+D]/A, %)
		Actual	In Process*		
Private Takings	126 (48.6)	13	2	23	38 (30.2)
Public Takings	133 (51.4)	2	3	12	17 (12.8)
Total	259 (100.0)	15	5	35	55 (21.2)

*. Administrative processes required for cancellation are simply being under way as of the end of 2013.

[22] As explained below, the average duration of cancellation was 3.2 years from τ_1 and that of change in project runners was 2.2 years. Thus, 3 years are not sufficiently long, but would certainly ameliorate the right-censoring problem.

The number of industrial complexes designated was 279 for 8 years from 2003. Yet, 20 of the total were not pertinent, including the 11 cases where both public and private entities were participating as co-runners.[23] Thus, the final sample size is 259. As shown in Table 1, private takings account for 48.6%. The number of post-taking irregularities defined as CoC in this paper is 55 (21.2%). At least one out of four takings did not proceed as officially announced at τ_1, and, considering the number of cancellations (20) given the current follow-up period, 'at least' 7% of the takings were nullified leaving all kinds of sunk costs. In particular, the CoC rates in the last column of Table 1 indicate that the rate of private takings (30.2%) more than doubled that of public takings (12.8%). Thus, it is legitimate to become suspicious of the relative inefficiency of private takings in the context of CoC.[24] Nevertheless, these simple statistics are

[23] Takings did not take place in 5 cases as the necessary land was already available through purchase. Also, 4 cases, in spite of their being called 'general,' were actually 'national' complexes that take more than 10 years of construction as they were located within the so-called Free Economic Zones. Meanwhile, the number of designation was 114 in total from 2011 to 2013. Surprisingly, private takings accounted for as much as 76%.

[24] These explanations in Section IV.1 up to Table 1 are a summary of pp. 22-28 of the authors' essay written in Korean explaining just descriptive statistics ("An Economic Analysis of Private Takings in Korea," *Korea Real Estate Review*, 2013, pp. 7-33). Although we used the same observations as the current ones, we therein allowed the follow-up period only to the end of 2012: the total number of CoC was slightly over 40. However, we were surprised to find, by the time we completed the above essay in the spring of 2013, that many incidents of CoC particularly in private takings were taking places over only a few more months that year. Therefore, we thought that a more rigorous investigation with parametric estimation should be necessary to draw a more reliable conclusion. We then started to collect all necessary data for months and to undertake a more thorough survey of the literature to construct our theoretical conjectures for this paper.

hardly to be regarded as definite evidence as there may be other characteristics relevant to CoC. Finding clearer evidence is the task undertaken below.[25]

2. The Variables and Descriptive Statistics

We attempt to uncover major factors that contributed to the occurrence of CoC. After relevant explanatory variables were factored in to control for the occurrence, we then tried to draw efficiency implications of private takings *per se*. Specifically, the probit equation (1) is estimated. Vector X contains various control variables and Z includes the main variables related to the entity of takings that will hopefully reflect inefficiency implications stemming from adverse selection or moral hazard.

$$\Pr(CoC_i = 1 \mid X_i, Z_i) = \alpha + X_i'\beta + Z_i'\gamma + \varepsilon_i, \quad where \quad i = 1, \cdots, 259. \tag{1}$$

[25] To the extent that private projects are likely to have a 'harder' budget constraint than government projects, one can conjecture that private CoC can be an outcome reflecting market forces more faithfully. This counter-argument is critical, but does not appear to be relevant for our study. First of all, an industrial complex, once it is built, is mostly operated for very long (i.e., at least for 20 to 30 years). It usually requires a very high level of scrutiny over a few years before reaching the decision to build a huge complex and to finance the project properly. Thus, if CoC takes place within a short period of time, we reasonably infer that it would most probably reflect ill preparation or negligence, i.e., a strong indication of inefficiency. In fact, our data shows that the official time taken from τ_1 for private CoC was, on average, only 2.6 years. The real duration should be much shorter as the administrative procedure takes at least several months to get CoC officially announced. Also, note that the duration has gotten shorter recently (for example, 10 cases of CoC out of the 45 private takings launched in 2010 took only 2.1 years). We cautiously regard this as evidence that the inefficient incentive has been solidified over time. Finally, we claim that our conclusion so far is reinforced furthered, considering the average time taken for 17 cases of public CoC in Table 1 was about 3.0 years. Therefore, government agencies do not appear to have much 'softer' budget constraint at all. We are very grateful to Mark Ramseyer for leading us to probe this matter seriously.

Explanations about the variables are in order. The dependent variable, CoC, takes a value of 1 if CoC has occurred, 0 otherwise. As for explanatory variables, a time dummy, $TIME$, takes a value of 1 if CoC occurred from 2011 to 2013. This is simply to reflect our observation from the scattered plot that more than 70% of CoC took place over these 3 years. Another basic control variable is NH^{METRO}, a dummy taking a value of 1 if the construction site is located in metropolitan areas. NH^{METRO} reflects better conditions for industrial complexes in terms of transportations, securing labors, and other social infrastructures such as hospitals, government offices, or schools. Thus, other things being constant, NH^{METRO} would lower the probability of CoC.

We included land price changes to take into account the condemner's higher incentives not to cancel the project as the value of the complex would increase with increases in land price. (However, land price increases might induce the initial condemners to sell off the land to a third party.) We calculate LFR as the average rate of the annual land price change for 3 years after the taking project was officially announced.[26] $AREA^{SMALL}$ is an size-related dummy taking a value of 1 if the size of the complex is less than 300,000m^2, that is, if the gross area is relatively small.[27] A smaller area indicates less difficulty in raising the required fund, lowering the probability of CoC. Dmd is a dummy indicating that the complex in question is to be used

[26] For each observation, we referred to the *Officially Assessed Land Prices*, which are provided by the Ministry of Land, Infrastructure and Transport (MLIT), of the most elementary precinct to which the land-piece in question belongs.

[27] If the size is less than 300,000m^2, the complex is legally categorized as a 'small complex' according to the Industrial Location and Development Law.

exclusively for the condemner's own on-going business, which is customarily called the demand by the end user. Dmd is expected to have a negative coefficient. Finally, RGN^{SEOUL} is a dummy indicating a complex located within the Seoul metropolitan area. Since there have been very tight regulations against land development in the area, only after strict assessments can condemners obtain a permission. It is usually considered a privilege, which would make a negative effect on the occurrence of CoC.

We will find a baseline specification using the aforementioned control variables, and then attempt to determine whether the types of condemners, public (PUB) or private (PRI), affect the dependent variable hopefully in the context of adverse selection or moral hazard.[28] To capture differentiating effects of each entity, for public entities, we distinguish metropolitan (including central and provincial) governments and their affiliated public corporations (PUB^{MET}) from smaller local governments (PUB^{LOC}). We expect the latter, as they have much inferior financial resources as well as less experience, to have positive effects on the dependent variable *vis-à-vis* the former.

If our main hypothesis in Section III.2 holds, private taking entities overall will have a higher probability of CoC. Further, we hardly expect that all private entities will show identical magnitudes of such effects, so we sort them into three subgroups. PRI^{BIG} represents a big private company. PRI^{MEDIAN} and PRI^{SMALL} indicate medium and small-sized companies, respectively.[29] Our prediction is that smaller firms will

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[28] For this public-or-private information we first used the aforementioned ILIS database and later double-checked it with all related *Administrative Gazettes*. Detailed information on private entities was obtained from the Electronic Disclosure System (http://dart.fss.or.kr/) of the Financial Supervision Service and also the individual companies' websites for confirmation.

[29] We follow the classification regarding the size of private corporations by annual sales as legally stipulated in the 'Median and Small Companies Law.'

have a higher likelihood of default after τ_1 for the same reason of greater liquidity constraints and limited experiences. We believe that this would then reflect adverse selection to a certain extent. It will be interesting to find any differentiating effects among these three variables of private-sector entities *vis-à-vis* that of PUB^{MET} which is routinely presumed in the literature to be the entity exercising eminent domain power.

Finally, in Korea, development projects of a large scale often obtain various supports from the central government even when a project is run by local governments or private entities. The supports range from direct subsidies to long access roads, shortening administrative procedures on the part of the central government, and many others. Given that industrial complexes are on average fairly large-scale development projects and are being built broadly throughout the entire nation, such supports for them used to be a regular campaign pledge in the presidential elections. Even in this regard, the year 2008 appears to have been truly exceptional. Right after President M. Lee was elected,[30] an exceedingly generous package of these supports was actually offered that year, exactly as he had pledged in his campaign.[31]

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[30] As an ex-chairman of Hyundai Engineering and Construction, President Lee was known worldwide to have a firm belief in the positive impacts of massive construction projects on boosting the economy (Feb 25, 2008, The New York Times;. http://en.wikipedia.org/wiki/Lee_Myung-bak).

[31] Representative examples are as follows. Part of the existing regulations on development projects on the Seoul metropolitan areas were lifted in April (*Improving the Regulations Concerning Land Uses in the Seoul Metropolitan Areas*, MLIT, 2008). In 2008 the central government's spending to provide access roads doubled to US$ 600 mil (*How to Support the Infrastructure for Industrial Complexes*, MLIT, 2011, pp. 57-63). Further, a special law was enacted in June to significantly shorten the duration required to receive a taking permission. Other types of administrative support were abundant such as amelioration on various environmental and zoning regulations and active consultation for private enterprises that were interested in industrial complexes, to name a few. We were able to find more than 10 official reports concerning the 'measures of support for industrial complexes' published in 2008 by MLIT alone.

The number of takings soared to 63 in 2008. Compared with the previous year, while the number of public takings doubled to 38, that of private takings almost tripled from 8 to 25. In fact, all these supports were literally being continuously poured until the end of 2008 when the Asian financial crisis severely hit the Korean economy. $SUPPORT$ is a dummy taking a value of 1 if the taking decision was made in 2008 (i.e., τ_1 = 2008). We suspected that $SUPPORT$ reflects adverse selection to an extent. Further, this variable also is believed to reflect the 63 project runners' moral hazard such as their less precautionary efforts after τ_1 because they probably expected more insurance from the central government (e.g., relief loans and other types of subsidies). However, such high expectation was not realized after all in the ensuing years.[32]

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[32] As the fallout of the financial crisis extended longer than expected (e.g., the GDP growth rate of only 0.3% in 2009), the administration experienced a severe financial crunch. According to the Consolidated Balance Sheet of the Central Government, an annual average surplus was US$ 13.1 bil for the previous 5 years (2004-2008), but the balance plummeted to a deficit of US$16.7 bil in 2009 (www.index.go.kr). Further, in 2009, the total national debt increased to US$ 341 bil (i.e., by 16.4%) just over a single year (www.index.go.kr). Moreover, President Lee's economic policy focusing on other massive constructions (e.g. the 4-river refurbishment projects) soon started facing stern opposition from many different groups. We were hardly able to trace, over the ensuing two years (2009-2010) in our sampling period, newer supports for industrial complexes as privileged as those offered in 2008.

Table 2. Definitions of Variables and Descriptive Statistics

Variables	Description	Mean (S.D)	Min	Max
CoC	Cancellation or Change in Project Runners. (Yes=1)	0.212 (0.410)	0	1
$TIME$	If CoC occur from 2011 to 2013. (Yes=1)	0.166 (0.373)	0	1
NH^{METRO}	If Construction site is located within or near metropolitan areas. (Yes=1)	0.355 (0.480)	0	1
LFR	Average rate of the annual price change for 3 years from plan announcement (%).	21.20 (23.28)	-2.74	140.2
$AREA^{SMALL}$	If the complex size is less than 300,000 ㎡. (Yes = 1)	0.371 (0.484)	0	1
Dmd	If the complex is to be used exclusively for the condemner' on-going business. (Yes=1)	0.181 (0.386)	0	1
RGN^{SEOUL}	If the complex is located within the Seoul metropolitan area. (Yes=1)	0.197 (0.398)	0	1
PRI	If the condemner is private. (Yes=1)	0.486 (0.501)	0	1
PUB^{MET}	If the condemner is metropolitan (including central and provincial) governments and their affiliated public corporations. (Yes=1)	0.274 (0.447)	0	1
PUB^{LOC}	If the condemner is local governments. (Yes=1)	0.239 (0.428)	0	1
PRI^{BIG}	If the condemner is a big corporation. (Yes=1)	0.062 (0.241)	0	1
PRI^{MEDIAN}	If the condemner is a median-size corporation. (Yes=1)	0.143 (0.351)	0	1
PRI^{SMALL}	If the condemner is a small-size corporation. (Yes=1)	0.282 (0.451)	0	1
$SUPPORT$	If τ_0 is in 2008. (Yes=1)	0.236 (0.425)	0	1

3. Estimation Results: Confirmation of the Inefficiency of Private Takings

Estimation results are reported in Table 3. In $M1$, the coefficient estimates of the two basic control variables, $TIME$ and NH^{METRO}, show the expected positive and negative signs at the 1% and 5% significance levels, respectively. However, LFR, $AREA^{SMALL}$, and Dmd did not show significant coefficient estimates in models $M2$ to $M4$. RGN^{SEOUL} showed an expected negative estimate in $M5$. We regard $M5$ as the baseline specification of (1) with the R^2 of 48.8%.

We then turn to additional analyses which can provide efficiency implications related to the taking entities. It is very interesting to note that the private takings dummy, PRI, in $M6$, provided a positive coefficient estimate at the 1% significance level in $M6$. Its inclusion increased the R^2 by 1.8% points. This estimation result implies that private takings cause more frequently cancellations or changes in project runners. According to the marginal impact analysis on the average (MIA), private takings raise the probability of CoC by 5.3% points *ceteris paribus*.

Next we broke down the entities of private takings into PRI^{BIG}, PRI^{MEDIAN}, and PRI^{SMALL}, while we separate the entities of public takings by local governments (PUB^{LOC}) from those by metropolitan governments and their affiliated public corporations (PUB^{MET}). The R^2 was raised by 3.1% points. Inclusion of the first four variables into $M6$, with PUB^{MET} used as the default situation, reveal surprising results in $M7$. All four coefficient estimates are positive as expected if our main hypothesis in Section III.2 holds with respect to adverse selection. In particular, PRI^{MEDIAN} and PRI^{SMALL} have biggest coefficient estimates in absolute terms with the highest significance levels, which is also consistent with our expectation.

Finally, in the last two models, $M8$ and $M9$, we attempted to discover how the central government's unprecedented level of support in 2008 affected the likelihood of

post-taking opportunism. In other words, we intended to test the relative efficiency of private takings using the abrupt increases in the central government's subsidies as a source of *exogenous variations*. $SUPPORT$ in $M8$ has a positive coefficient estimate, but it is not statistically significant. Nonetheless, we obtained a very meaningful result from $M9$ where we interacted $SUPPORT$ with the private entity dummy (PRI).[33] The interaction variable has a positive coefficient estimate which is also statistically significant. This suggests that only the private takings out of the 63 takings that took place in 2008 tend to increase the probability of CoC. Therefore, we cautiously submit that generous package of privileges can make private takings more inefficient in terms of adverse selection and/or moral hazard.

[33] We initially intended to make $SUPPORT$ interacted with the three broken-down dummies of private takings. However, it caused a multi-collinearity problem and so we used the entire private entity dummy.

Table 3. Estimation Results: Inefficiency of Private Takings

	TIME	NH^{METRO}	*LFR*	$AREA^{SMALL}$	*Dmd*	RGN^{SEOUL}	*PRI*	PUB^{LOC}	PRI^{BIG}	PRI^{MEDIAN}	PRI^{SMALL}	*SUPPORT*	*SUP*PRI*	*Cons.*	*McFadden* R^2
*M*1	2.585***	-0.599**												-1.250***	45.9%
	(0.280)	(0.274)												(0.141)	
*M*2	2.597***	-0.520*	-0.011											-1.133***	46.2%
	(0.280)	(0.288)	(0.013)											(0.193)	
*M*3	2.635***	-0.451	-0.013	-0.339										-1.032***	46.9%
	(0.285)	(0.292)	(0.013)	(0.258)										(0.206)	
*M*4	2.648***	-0.426	-0.011	-0.315	-0.304									-1.018***	47.2%
	(0.287)	(0.293)	(0.013)	(0.260)	(0.342)									(0.208)	
*M*5	2.642***	-0.517*	-0.010	-0.273	-0.362	-0.777*								-0.918***	48.8%
	(0.288)	(0.299)	(0.013)	(0.268)	(0.351)	(0.405)								(0.214)	
*M*6	2.553***	-0.647**	-0.010	-0.460	-0.737**	-0.721	0.770***							-1.144***	51.6%
	(0.298)	(0.309)	(0.013)	(0.287)	(0.369)	(0.444)	(0.286)							(0.238)	
*M*7	2.556***	-0.618**	-0.007	-0.500*	-0.709*	-0.649		1.130**	1.154*	1.707***	1.536***			-1.976***	54.7%
	(0.307)	(0.328)	(0.015)	(0.296)	(0.380)	(0.454)		(0.481)	(0.659)	(0.529)	(0.503)			(0.473)	
*M*8	2.546***	-0.566*	-0.003	-0.464	-0.697*	-0.668		1.116**	1.157*	1.700***	1.497***	0.100		-2.082***	54.8%
	(0.307)	(0.337)	(0.016)	(0.301)	(0.381)	(0.463)		(0.480)	(0.697)	(0.528)	(0.504)	(0.157)		(0.503)	
*M*9	2.665***	-0.434	-0.004	-0.448	-0.656*	-0.583		1.239**	0.979	1.460***	1.191***	-0.281	1.007*	-2.047***	55.9%
	(0.326)	(0.343)	(0.016)	(0.306)	(0.386)	(0.475)		(0.500)	(0.727)	(0.557)	(0.525)	(0.435)	(0.603)	(0.516)	

Note: · ***, **, and * represent statistical significance at the 1%, 5%, and 10%, respectively. Standard errors in parentheses.

V. Conclusion

The estimation results do not appear to support the extant arguments in favor of private takings based on their relative efficiency. These results, to the contrary, support our earlier conjecture that eminent domain power can be abused more grievously in private takings when the profit-maximization motive is coupled with the various deficiency of public oversight against private entities' opportunism. It is thus necessary to be alerted against the common claim that private economic development is indeed of public benefit because it can yield higher tax revenue and stimulate job growth. If such misconception becomes prevalent, the distinction between public and private use will simply erode, causing many unintended ill consequences.

The law and economics analyses in this paper are expected to shed beneficial insights, especially for countries that intend to use private takings as an effective instrument in achieving rapid economic development. Note that we have so far examined only the efficiency aspect. Therefore, the insights will obviously be reinforced considering that we have not examined in this paper other potentially undesirable aspects of private takings, the prominent example of which is social harm incurred from *fairness* and *equity* grounds.[34]

[34] The most tangible example of the former (i.e., the fairness ground) is the demoralization of condemnees from not being compensated for regulatory takings. That is, right upon the announcement or permission of a taking, landowners are subject to severe restraints on the use of their lands until they finally leave. In Korea, there is no compensation for such regulatory takings imposed for long years even when the announced taking project is cancelled. Also, any social harm stemming from the latter (i.e., the equity ground) would manifest itself well, for example, via more inequality as the expression of the 'reverse Robin Hood fashion' by Justice O'Connor's opinion in *Kelo* implies.

Several solutions can be explored in order to minimize the abuses arising from private takings. One prevalent argument is to adopt stricter criteria for public use, as Staley (2010) offered a checklist for determining whether a taking project in question actually would generate public benefits.[35] We basically agree on this suggestion to implement much more restrictive criteria than the current ones. However, legislating more generous compensation to landowners might be another beneficial policy prescription for Korea in the short run. In the same vein of the argument that 'creating a wide variety of benefits to the region' hinges on a private condemner's profitability, a fairly generous compensation rule for landowners can effectively overcome at least the informational asymmetry which has been the major source of adverse selection and inequitable redistribution. Of course, rigorous policy simulations should be required regarding 'how generous' before its actual implementation.[36]

[35] For the same goal, however, Eagle (2010) argues for an alternative device. That is an active participation of landowners. He suggests that the abuse can be curbed as the landowners become involved from the planning stage and are given a legal opportunity to join the development project with a more equitable status.

[36] Although it does not appear so at first glance, this policy of generous compensation is indeed consistent with the inherent nature of the private sector's profit-maximizing incentive. Only those who have confidence in their profitability after paying generous compensation will be self-selected. In a similar vein, law should require that local governments restrain themselves from providing various subsidies such as tax privileges, loan guarantees, or MRG, etc. Very interestingly, Epstein (1985, p. 174) was already explaining this idea with respect to the Mill Act of New Hampshire which required the 50%-Plus rule above the market price. Refer also Wyman (2007, p. 257), Heller and Hills (2008, pp. 1475-1476), Bell (2009, p. 559), and Lee (2013, p. 634) for similar arguments and cases.

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