出國報告（出國類別：國際會議）

參加「第 28 屆泛太平洋不動產估價會議」及參訪日本不動產研究所

服務機關：內政部（地政司）
姓名職稱：施副司長明賜、洪視察郁惠
派赴國家：日本
出國期間：105 年 9 月 25 日至 9 月 29 日
報告日期：105 年 12 月 20 日

摘　要

第 28 屆泛太平估價會議以研討會方式進行，主要議題為「在恆變全球經濟下拓展估價業的角色與專業」。近幾年國際經濟局勢變化劇烈，不動產為重要的投資、融資貸款標的，許多國家不論國內經濟或國際投資事務都更加看重估價業務的角色，在這次會議中除了技術面：國際財產評估準則(International Property Measurement Standards, IPMS)與 IFRS、IVS 關係之介紹；也包括制度面：幾個國家介紹該國評價業務、不動產估價者的培訓制度、國內估價技術如何與國際接軌；應用面：個案應用(土地徵收、風水、渡假村、老人安養中心、土石流災害……等)。

此行除參加第 28 屆泛太平估價會議，亦參訪「一般財團法人日本不動產研究所京都支所」，以了解日本在公示地價制度下之公部門估價體系、政府與不動產估價師之分工及公示地價之應用與課稅價格之關係。

心得與建議：

一、國內體制需能彈性、即時因應國內外經濟環境需求。

二、強化不動產估價師培訓體制，提升估價技能與估價品質。

三、重新界定國內公部門估價目的，並加強與不動產估價師合作。

四、提升土地徵收補償估價之準確性及估價效率。

五、鼓勵公私估價相關從業人員參與國際會議與宣導交流。

目　　錄

圖 目 錄

壹、目的

本次參加第 28 屆泛太平洋不動產估價師、評價人員及顧問會議(以下簡稱泛太平洋不動產估價會議) （The 28th Pan Pacific Congress of Real Estate Appraisers, Valuers and Counselors）及參訪日本不動產研究所，主要目的如下:

(一) 蒐集國際不動產估價技術準則與其發展之相關資訊，及各國相關產業應用準則於不動產估價之情形。

(二) 了解各國不動產估價產業制度與管理情形。

(三) 考察日本公部門估價制度。

(四) 作為我國提升不動產估價技術、規劃不動產估價師制度與管理以及改革房地價稅制度之重要參考。

貳、出國行程

一、會議地點及時間

會議地點：日本京都國際會館（Kyoto International Conference Center)。

會議時間：2016 年 9 月 26 日至 2016 年 9 月 29 日（計 4 天)。

二、會議行程

日期	停留地點	行程
2016.9.25（日）	臺灣－日本京都	（去程）
2016.9.26（一）	日本不動產研究所(京都支所) /日本京都國際會館	參訪 /報到
2016.9.27（二）	日本京都國際會館	會議
2016.9.28（三）	日本京都國際會館	會議
2016.9.29（四）	技術參訪 日本－臺灣	技術參訪 （回程）

參、會議重要內容

一、辦理單位

第 28 屆泛太平洋不動產估價會議由日本不動產鑑定士協會聯合會(JAREA)主辦，於 2016 年 9 月 26 日至 29 日於日本京都國際會館舉行。

該聯合會創立於 1965 年，為日本唯一全國性以公益目的設置的合格不動產鑑定士組織，迄今(2016)年 7 月會員數約 5,400 人，其成立目的在保持合格估價師品格、提升其估價專業並致力於發展不動產估價體系。

二、會議議程

- 2016.9.26(星期一)

15:00	報到
18:00	歡迎晚會~ 20:00

- 2016.9.27(星期二)

09:00	報到 & 交流
10:00	開幕式 會員國代表致詞 地主國開幕
11:15	休息
11:30	專題演講（主題：探索土地的新可能） 安藤忠雄先生（建築師）安藤忠雄建築事務所
12:30	午餐
13:30	小組討論 1
	主題：估價者在快速變化的全球金融市場中的角色 主持人：ISOBE, Hiroyuki (日本) 討論嘉賓 1 : Dato' Sr Lau Wai Seang (馬來西亞) 討論嘉賓 2 : Scott Robinson (美國) 討論嘉賓 3 : KOMORI, Hiroshi (日本)
15:00	休息

15:30	小組討論 2
	主題：估價與國際財務報導準則（IFRS)和國際評價準則（IVS)之關聯 主持人：MIZUTANI, Shigeko（日本） 討論嘉賓 1：Rengganis Kartomo（印尼） 討論嘉賓 2：David Faulkner（香港） 討論嘉賓 3：Sr Elvin Fernandez（馬來西亞）
17:30	晚會(京都之夜)~ 19:00

- 2016.9.28(星期三)

08:30	報到 & 交流	
09:00	分組研討	
	分組 1A • 以動態估價訓練滿足全球企業環境- Lim Lan Yuan (新加坡) • 菲律賓估價師之估價訓練- Marissa Benitez (菲律賓) • 國際財產評估準則（IPMS)之發展及應用- David Faulkner (RICS 香港)	分組 1B • 日本旅館業近期投資市場趨勢 ENDO, Ei (日本) • 新加坡之住宅市場政策及其有效性- Teo Li Kim (新加坡) • 印尼之 REIT 產業：估價師之現況及未來展望- Elang Tomi Ariefianto (印尼) • 蓬勃發展之澳洲住宅市場-估價師的美夢或噩夢- Robert Hecek (澳洲 a)
10:30	休息	
11:00	分組研討	
	分組 2A • 印尼運用準大量估價策略於公共設施開發之土地徵收 - Ni Luh Asti Widyahari (印尼) • 印尼之電力設施開發土地徵收規劃 - Asyifa Fujiastuti (印尼)	分組 2B • 海外關注之日本滑雪渡假村及其估價-以白馬八方尾根滑雪渡假村評估案為例-SHINMI, Kenichiro (日本) • 災害影響於土地評估法-以印尼 Lapindo 土石流案例實證研究- Triani Agustin (印尼)

	• **在不動產估價之應用 – 外煞風水因素之實證** – 林秋綿（臺灣） • **運用非線性空間模型評估容積率**- Woo-hyun Choi（韓國）	• **無市場財產估價之可行性(南韓之財產估價)** - Sumi Ku（韓國） • **日本老人安養中心評估**- TANIGUCHI, Manabu（日本）
12:30	午餐	
14:00	分組研討	
	分組 3A • **區域中心城市住宅區利用地價度量建立定量評估之建議方法 -地方再生城市中心** MURAKAMI, Kojiro (Japan) • **變動資本化率對個體與總體之影響** – 林俊銘（臺灣） • **案例研究資料挖掘技術於工業用地評估之應用：與人工神經網絡的方法**- Jae Heon Shim（韓國）	**分組 3B** • **以設定拍賣最低價格為目的之資產估價**- Sandip Kumar Deb（印度） • **具定期借地權空屋之利用** YAMAZAKI, Kenji（日本） • **韓國租賃住房供給政策轉變及其相關產業之發展**- Bon Il Gu（韓國） • **家族企業動態 - 對企業重大影響及相關資產評估**- James Price（澳洲）
15:30	休息	
16:30	閉幕式~ 18:00	
18:30	歡送晚會~ 21:00	

- 2016.9.29(星期四)

08:30-13:00	技術參訪

三、會議情形

本會議主要參加人員為泛太平洋地區不動產估價業者、資產評價人員、不動產顧問及部分政府官員、學者。本次會員除加拿大未參加外，其他與會會員包括臺灣、澳洲、印尼、南韓、馬來西亞、墨西哥、紐西蘭、美國及新

加坡之不動產估價組織，以及大會邀請之中國房地產估價師及經紀人協會(CIREA)、蒙古估價師協會(MICA)及越南估價協會(VVA)等國不動產估價組織，此外泛太平洋地區其他國家(如：印度、菲律賓、香港、泰國)亦有不動產相關從業人員參加。本次會議約 450 人參與，除地主國-日本參與人數最多，各國以印尼、馬來西亞、南韓與會代表較多。

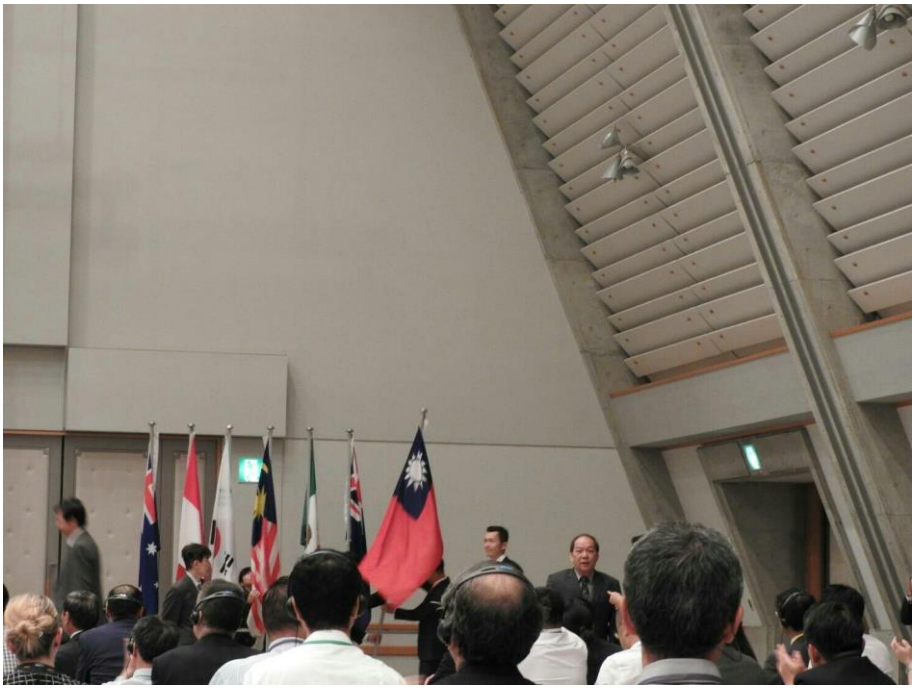

圖 1　開幕式各會員國國旗入場

本次會議我國產、官、學界共 19 人參加，名單如下：

機關或單位名稱	姓名	職稱
中華民國土地估價學會/中國文化大學土地資源系	梁仁旭	理事長/教授(發表人)/代表團團長
香港商世邦魏理仕有限公司(CBRE)台灣分公司	林俊銘	董事總經理(發表人)/代表團副團長
政治大學地政學系	陳奉瑤	教授(發表人)
臺北大學不動產與城鄉環境學系	林秋綿	副教授(發表人)
臺北大學不動產與城鄉環境學系	章志鵬	研究生(發表人)
內政部地政司	施明賜	副司長
內政部地政司	洪郁惠	視察

高雄市政府地政局	陳冠福	副局長
高雄市政府地政局	簡瑩雪	科長
高雄市政府地政局	蔡惠美	股長
高雄市政府	薛仲信	隊長
高雄市政府	葉曉岑	秘書
中華民國不動產估價師公會全國聯合會/全國不動產估價師事務所	張子亮	理事長/所長/不動產估價師
葉美麗不動產估價師聯合事務所	葉建源	不動產估價師
展碁不動產估價師聯合事務所	張志明	不動產估價師
	簡淑媛	不動產估價師
天易不動產估價師聯合事務所	莊濰銓	不動產估價師
	陳穎貞	不動產估價師
財團法人臺北市都市更新推動中心	劉筱蕾	資深分析師/不動產估價師

圖 2　我國出席人員與外國友人合影

(前排右 1 簡瑩雪科長、右 2 陳冠福副局長、右 3 林秋綿副教授、右 4 張子亮理事長、右 5 本部地政司施明賜副司長、中梁仁旭理事長、左 1 張志明估價師、左 4 葉建源估價師、左 5 本部地政司洪郁惠視察、左 6 陳奉瑤教授；後排右 1 蔡惠美股長、右 2 林俊銘總經理)

四、會議內容

本次會議專題演講，係邀請國際建築大師安藤忠雄先生主講「探索土地的新可能」;會議主要議題為「在恆變全球經濟下拓展估價業的角色與專業」。近幾年國際經濟局勢變化劇烈，不動產為重要的投資、融資貸款標的，許多國家不論國內經濟或國際投資事務都更加看重估價業務的角色,在這次會議中除了技術面：國際財產評估準則(International Property Measurement Standards, IPMS)與 IFRS、IVS 關係之介紹；也包括制度面：幾個國家介紹該國評價業務、不動產估價者的培訓制度、國內估價技術如何與國際接軌；應用面:個案應用(土地徵收、風水、渡假村、老人安養中心、土石流災害……等)。

以下簡要介紹幾篇會議報告內容：

(一)專題演講：探索土地的新可能

大會邀請國際建築大師安藤忠雄先生主講。安藤先生將其多年從事建築規劃設計工作，以風趣幽默的口吻，搭配豐富的圖片、案例，向大家分享對於建築與土地、空間、環境、景觀與人之關係與意境之探索與詮釋。

圖 3　專題演講-安藤忠雄先生主講

圖 4　專題演講-建築、土地與環境實例

(二)國際財產評估準則(International Property Measurement Standards, IPMS)與 IFRS、IVS 關係之介紹

包括小組討論「估價與國際財務報導準則 (International Financial Reporting Standards, IFRS) 和 國 際 評 價 準 則 (International Valuation Standards, IVS)之關聯」與分組研討「國際財產評估準則(International Property Measurement Standards, IPMS)之發展及應用」(詳附錄 1)。

國際財務報導準則（IFRS）已逐漸成為全球資本市場之單一準則，國際資本市場之會計財務報告直接採用 IFRS 亦成為趨勢，其中固定資產部分與不動產估價息息相關。IFRS 於資產的會計財報價值認列分為「成本」模式與「公允價值」模式兩種。

國際評價準則(IVS)之制定則源於 1970 年代投資市場全球化潮流下，投資者對專業財產評估之需求提高，有制定國際性準則之必要，故英國、美國估價組織開始交流，而促成 IVS 制定發布，之後並隨世界經濟動態多次修正，國際評價準則委員會(IVSC)更致力於各國專業評價單位基準之調和與規範。

上述 IFRS 及 IVS 經過過去數十年的發展，許多國家也逐步採行或與本國規範接軌，小組討論時，印尼 Rengganis Kartomo 女士即分享該國採用

IFRS 的過程。而據世界銀行統計，全球 70%財富來自於不動產，超過 120 個國家採用 IFRS 為財務報告準則，其中也有很多國家使用 IVS，這兩種準則需要有可信賴的財產評估標準支撐，國際財產評估準則(IPMS)可謂兩者間的橋樑。

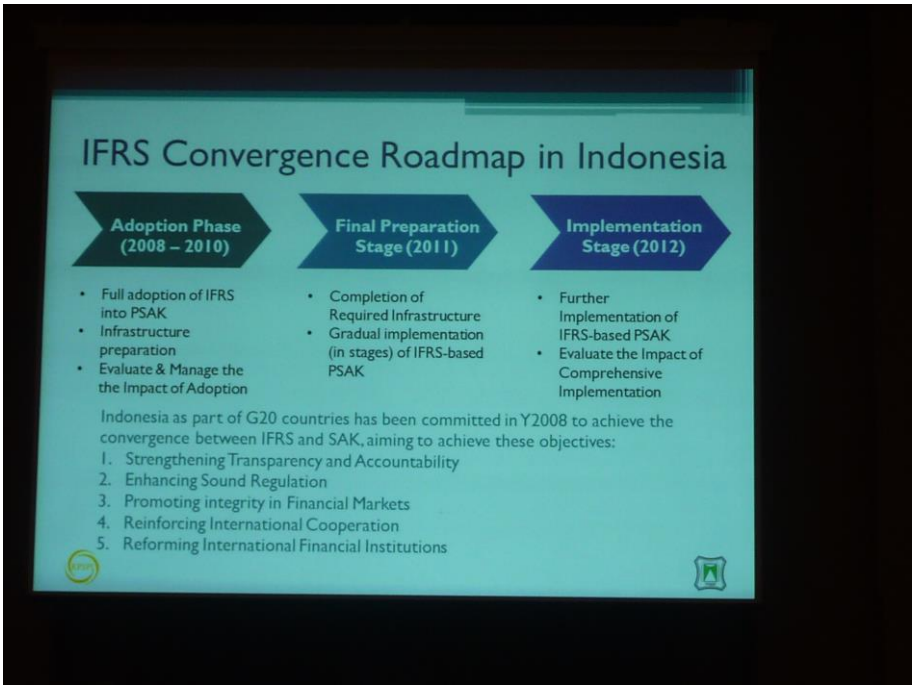

圖 5　印尼採用 IFRS 的過程

國際財產評估準則委員會(IPMSC)於 2013 年在世界銀行贊助下成立，主要有 13 個各國專業組織，超過 150 個國家為會員國，委員會期待透過國際財產評估準則(IPMS)的定義，取代各地不同定義名稱，使各個市場不會因各地不同定義而有衝突，促進世界不動產市場資訊更為透明，讓全球所有權人有共通的溝通語言。目前第 1 號準則已於 2014 年底發布，是針對辦公室建築物樓地板面積計算方式(面積計算至外牆、計算內部面積、計算專有部分面積等)而訂。第 2 號至第 4 號準則將分別對不動住宅建築形態之區分、工業用途、零售用途等，陸續訂定標準。

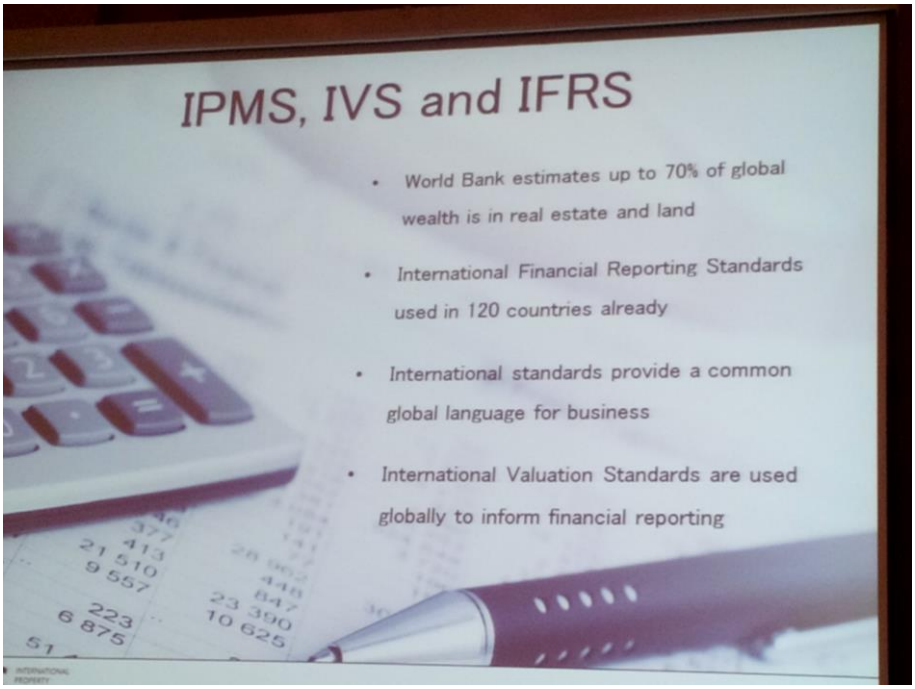

圖 6 IPMS、IVS 與 IFRS 之關係

(三)不動產估價者在全球金融市場的角色以及訓練、培訓制度

包括小組討論「估價者在快速變化的全球金融市場中的角色」與分組研討新加坡 Lim Lan Yuan 先生分享「以動態估價訓練滿足全球企業環境」等：

1. 小組討論「估價者在快速變化的全球金融市場中的角色」：

各國對於不動產估價者之制度、管理方式與仰賴程度不盡相同。小組討論時，主持人日本 ISOBE 先生與受邀與談嘉賓，包括馬來西亞 Dato' Sr Lau Wai Seang 女士、美國 Scott Robinson 先生及日本 KOMORI 先生，以多種金融、投資情境，探討現在以及未來，不動產估價者扮演的角色如何?不動產估價結果對委託者、投資者之決策影響性，是提供決策者選擇、建議參考或具強制性?與談人依據其實務經驗分享其看法與建議，並與與會者交流意見。

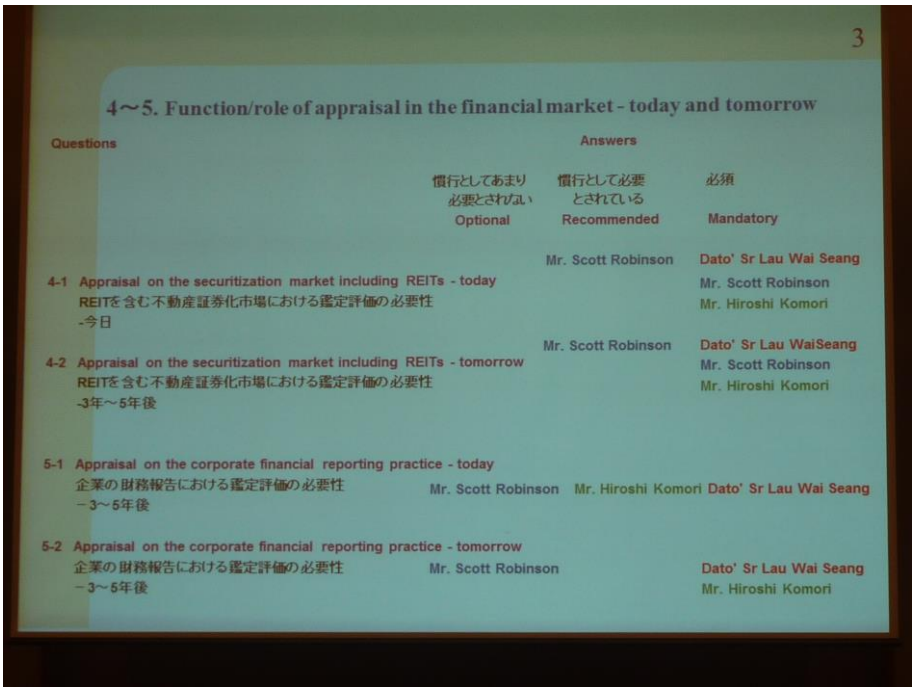

圖 7　小組討論情境

2. 新加坡 Lim Lan Yuan 分享「以動態估價訓練滿足全球企業環境」(詳附錄 2)：

報告中提到傳統的估價訓練以能執業為前提，教育體系的課程安排以國家體制在乎的重點為主，通常偏重於建築(建設)環境和商業環境的需求，課程包含估價理論與技術、資產管理、投資與財務、都市計畫、經濟學、建築技術、法律、分析與報告撰寫等面向；然而面臨全球化經貿投資需求以及國際經濟局勢變化，現在的估價訓練除了大學、技術學院理論性課程外，也包括一些專業機構投入，才能因應國際需求，估價的標的除了傳統著重於不動產之外，也逐步擴充到機器設備；課程也由面授實體課程演變為結合線上學習的混合課程，讓訓練能更加彈性、多元。

此外也因為美國次級房貸危機，估價業得以思考會計專業與估價如何銜接，並檢視估價方法論及技術，以制訂更佳的估價準則。許多國家已採行 IFRS，會計師及不動產估價者都需要熟悉 IFRS，特別是 IFRS 對於「公允價值」的定義與一般較熟悉的「市場價值」容易產生混淆，因此會計師與不動產估價者更應了解彼此的專業語言，以期能相融為一種合作方式，以避免審計問題和誤解。

未來全球經濟走向知識經濟，創新、創意和智慧財產(IP)更形重要，從估價領域而言，對於智慧財產(IP)的評估將有很大的機會。

(四)個案應用

1．土地徵收補償估價(詳附錄 3)

印尼政府近年著重公共建設開發以帶動經濟成長，須透過徵收取得公共建設需要土地，依法律徵收補償估價須於 30 個工作天完成，而徵收面積通常達數千公頃、數千位地主，為能在 30 天內完成估價，需要有一套快速、經濟的補償估價的方法，因此本篇文章試著在印尼的估價準則、法律及相關規範下，發展應用於公共建設用地取得徵收補償之準大量估價法(Semi-Mass Valuation Strategy)。

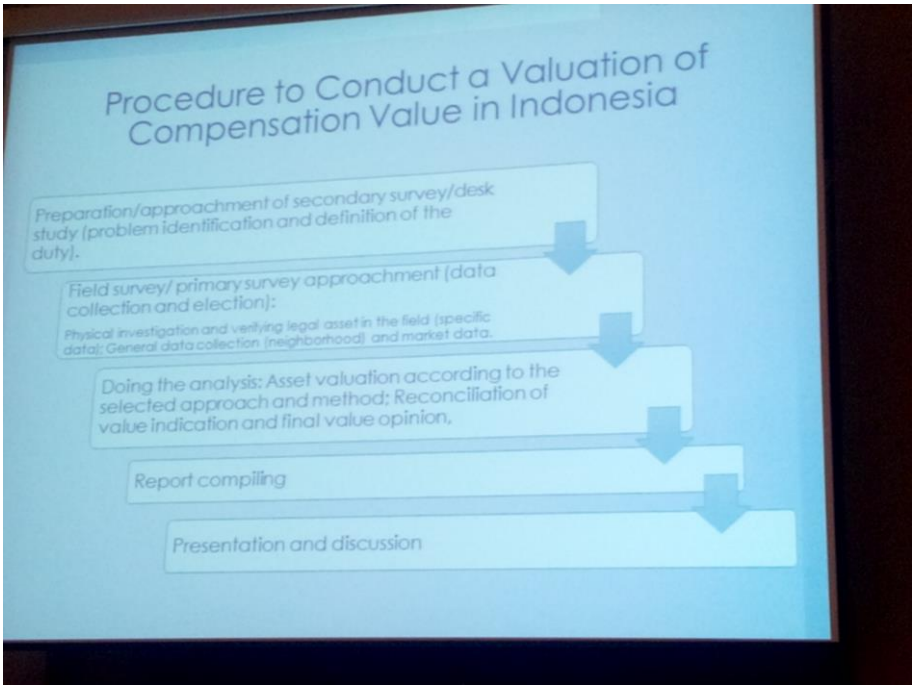

圖 8　印尼徵收補償估價程序

報告中首先談到印尼之徵收徵收體制中之補償概念，由於徵收用地(政府強制取得)與市場正常交易(買賣雙方均有意願)有別，因此在印尼的估價準則裡訂有公允替換價值(或一般稱為補償價值)概念，包含實質(土地及上下空間、建物、作物及與土地相關之設施設備)及非實質(工作、營業、情感、交易價格、等待徵收期間利息、剩餘土地等)損失，均需計算在內。而印尼

估價者在徵收補償估價中的角色，係依法律由政府依公開程序選擇具有證照、符合資格的估價者，給予徵收案中估價的任務，估價者需專業、獨立從事估價，並對其估價結果負責。

基於上述補償概念及估價者角色，印尼發展中的徵收補償準大量估價法估價程序中相當重視第 1 手資料及第 2 手資料的蒐集與分析，蒐集而得之大量市場資料需運用電腦化方式加速分析程序，透過電腦化作業也能減少人工錯誤或 excel 表格資料前後勾稽問題，並能快速對大面積、地主眾多之徵收案件進行估價。

2．風水(詳附錄 4)

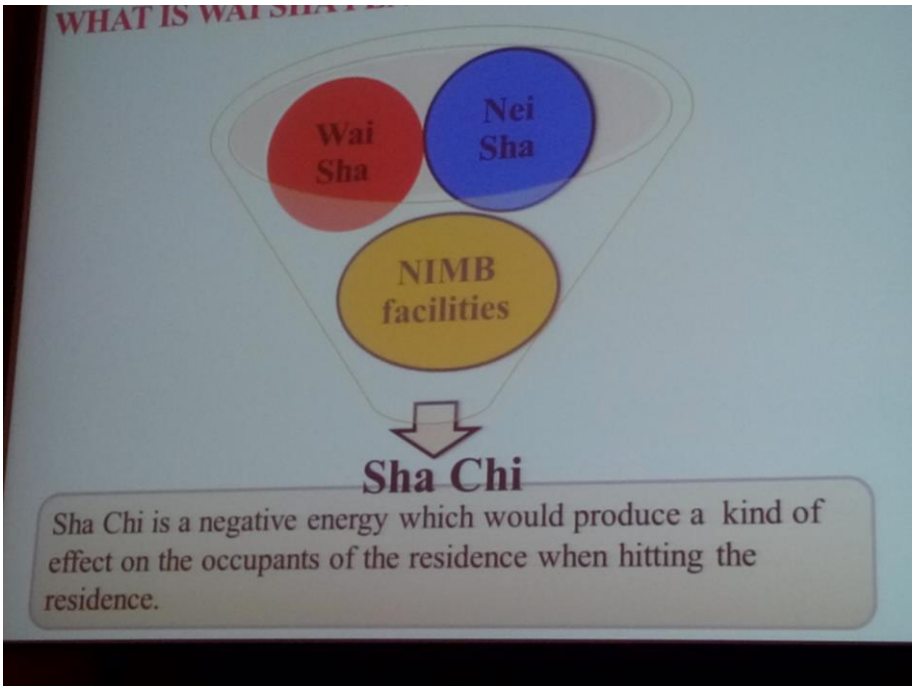

圖 9　說明風水煞氣

本篇報告由臺北大學林秋綿老師與研究生章志鵬先生共同發表，介紹華人世界特有的風水概念對不動產價格之影響及估價時之分析，並著重於研究風水煞氣中之「外煞」對不動產交易價格之影響。

依據本研究受訪者經驗，都不會購買存在外煞風水因素的物件，顯示外煞風水對住宅價格有明顯影響，但因受訪者認知與對真實個案外煞風水因素

之認知存有差距，並不見得會反映在個別案例實際交易價格上。在出價時影響最大的外煞風水因素為凶宅(如死亡、鬼屋)及直接對健康產生影響的因素，其次為交通意外。

肆、參訪內容

此行除參加第 28 屆泛太平估價會議，亦透過中華民國土地估價學會安排參訪「一般財團法人日本不動產研究所京都支所」，以了解日本在公示地價制度下之公部門估價體系、政府與不動產估價師之分工及公示地價之應用與課稅價格之關係，簡要說明如下：

一、參訪單位簡介

本研究所前身為日本勸業銀行內部研究部門，從事與房地產相關調查和評估。 於二次世界大戰後約 1950 年代，由於日本國內重建，銀行業務性質需隨同因應，也涉及諸多房地產市場調查及價格、價值評估問題，故於 1959 年在 16 家銀行及不動產公司支持下，由銀行內部部門獨立為日本不動產研究所，成為專門的綜合性房地產機構，2011 年 5 月變更為一般財團法人。業務範圍包括調查研究、鑑定評估與諮詢服務等，目前總員工數約 500 人，包括不動產鑑定士、建築師、律師、會計師、測量士……等專業人員。

二、參訪緣起

因目前本部與財政部規劃將展開房地價稅制度改革，而本研究所業務承接日本各級政府不少房地產估價業務，參與包括日本公示地價評估、固定資產稅土地價格評估、編制土地價格比準表等工作。透過本次交流，有助於了解日本公部門估價體系及運作方式，可望做為我國未來政策、制度規劃參考，爰安排本次參訪。

三、參訪紀要

本次參訪由該所從事公部門資產評價業務多年的七元広宣先生為我們簡報「不動產批量評估實務《以路線價評估法為中心》」(詳附錄 5)，介紹日

本以路線價評估法之大量估價作法(批量評估)、公部門土地評估比較、固定資產稅及都市計劃稅概要、建設用地評估方法、市街地建設用地評估方法、選定主要道路、選定標準地、路線價評估法結構與技術、路線價法應用實例。

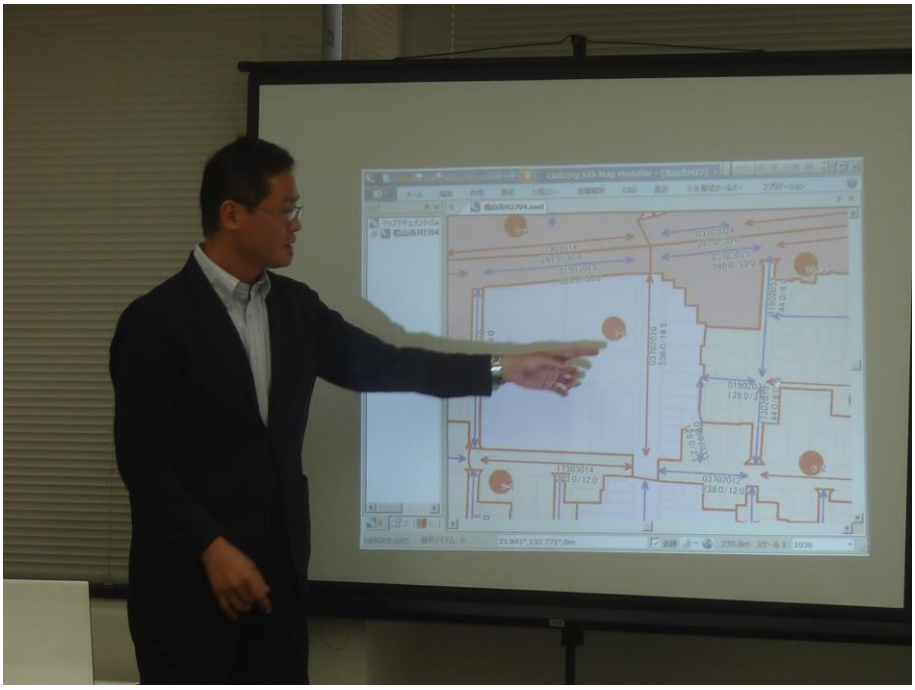

圖 10　介紹日本基準地價圖

七元先生簡報後，我方也請教相關問題，例如：日本主要的估價技術規範為何?估價基準法跟地價公示法的關係、公示地價、標準地價格跟土地市價、不動產市價(房地成交價格)的關係、公示地價、標準地估價報告書等查估報告書(作業書表)是否有制式規定?估價報告書是否對外公開?估價師辦理中央公示地價查估和地方市町村委託的標準地查估使用的電腦作業系統及作業流程、基於不同估價目的(固定資產稅、遺產稅…)有不同的標準地、路線價(圖)及評價基準嗎?市場上以房地結合的交易居多、少有土地交易，鑑定士如何由房地價格中拆分土地價格?七元先生及研究所同仁都詳盡解說(詳附錄 6)。

圖 11　參訪情形

圖 12　參訪後合影

伍、心得及建議

一、國內體制需能彈性、即時因應國內外經濟環境需求

臺灣是海島型國家，國際貿易與資金往來一向是重要的經濟支柱。以不動產投資與開發而言，不論是吸引外資或赴外投資，對於國內體制的健全化

與對國際或他國制度與規範的了解，都是相當重要的。整體體制規範國際化或將國際規範本土化，將有利於國內外投資雙方對話與溝通，對於國內投資環境及對外投資應都能有所助益。

以仲量聯行 2 年 1 次的「房地產透明度指數」為例，臺灣近幾年都是亞太地區(Asia Pacific)進步最多的國家，2014 年為半透明組第 1 名，2016 年晉升為透明組，總排序為全球 109 個市場中第 23 名，在亞太地區僅次於高度透明組之澳洲(總排序為第 2 名)、紐西蘭(總排序為第 6 名)及同為透明組的新加坡(總排序為第 11 名，透明組第 1 名)、香港(總排序為第 15 名)及日本(總排序為第 19 名)，進步主因為近年來政府持續推動財產稅制改革、實價登錄制度、揭露交易市場資訊有關。但報告也提出目前國內銀行業對於不動產抵押估價，除了外商銀行，本國銀行幾乎均由內部自行估價，恐缺乏獨立性與專業性的問題。這個問題除影響外資投資意願，也可能影響國內不動產估價相關準則、技術與國際接軌的進程。

參加本次會議可以感受到東南亞等國 (例如：菲律賓、印尼)對於參與全球化經濟與接軌之積極性與企圖心。身為政府一員，對此本應承擔檢視國內制度規範如何與時俱進的責任，但深感對於掌握國際準則之演變，顯得力有未逮。國外於技術層面之規範訂定，許多是以民間組織角色切入，更易於掌握市場需求及動態；另以國內會計、審計準則之制訂為例，係由「財團法人中華民國會計研究發展基金會」結合產官學之力，協助國內企業健全會計制度及教育推廣，更能彈性、即時因應國內外經濟環境需求。

故建議於本部主管的不動產估價部分，未來除既有賦予不動產估價師公會全國聯合會制訂技術公報權責外，政府應與業界(不動產估價師或公會)、學界(學者、相關科系、相關估價組織)多一些合作，結合學界蒐集專業資訊及理論論述能力，以及業界實務操作及市場需求之反饋，讓規範改變不受限於官僚體系之作業時程，而能快速、即時跟國際接軌。

二、強化不動產估價師培訓體制，提升估價技能與估價品質

國際各國有許多國家對於不動產估價之發證、管理及訓練，係由政府認

證之組織辦理，開業以公司型態經營或個人事務所方式經營均有之；而臺灣目前專門職業人員均由政府發照管理，開業後需加入職業公會，以公會會員自律方式，承擔部分管理之責，開業型態則依不動產估價師法規範以個人事務所方式為之，相較其他國家體制，臺灣不動產估價師證書具政府公信力，開業後結合公會力量管理，似具有彈性

而經營型態部分，依現行規定，經國家考試及格取得不動產估價師證書、具有實際從事估價業務達 2 年以上之估價經驗，即可申請發給開業證書，以個人執業型態經營估價業務，證照體系較偏重於基本執業技能之養成，雖開業後 4 年換證時須累積 36 小時專業訓練時數，惟實務經驗部分，仍多有賴開業後承接案件來累積。此外，目前國內尚無專屬不動產估價師之法定業務，初開業之個人執業不動產估價師多以接辦法院不動產拍賣底價估價案件為主，較難承接大型複雜估價案件(如都市更新權利變換)，若受政府行政機關委託估價，例如國產署標讓售底價估價、部分縣市政府委辦地價基準地查估以及土地徵收補償價格查估，需經委託單位政府部門審查，藉由公私協力維持估價品質，並保障政府行政處分關係人權益。但在私人委託案件部分，個人執業型態對此尚有不足，部分公會內部雖建立襄閱審查制度，協助確保估價案件品質，惟公會將難以維持不動產估價師法第 41 條應有之公正第 3 人協調角色。而目前國內尚未發生私人委託不動產估價師之重大估價糾紛案件，惟倘實際產生重大估價糾紛涉及賠償時，以個人事務所執業型態恐未能承擔賠償責任，對委託人權益保障堪慮。

於公私部門未來在估價相關事務將更倚重不動產估價師專業之趨勢下，實務上似難以 1 張國家考試證書，即全面確保提升估價人員素質、執業及責任承擔能力，因此未來賦予估價師之權利與責任必須更為明確。於提升估價品質水準、保障受託人權益之角度，培訓制度除現行基本執業技能之養成外，實務案例經驗之累積，建議與全國聯合會共同研擬培訓體系，而經營型態亦可思考開放以個人事務所以外其他型態經營估價業務，例如法人型態、公司型態，除易於獲得其他估價相關專業人員輔助(如日本不動產研究所包含各種專業人員)，組織內部可以資深估價師指導新進估價師方式，提升估價實

務技能，確保估價品質；在責任承擔上，法人、公司型態亦較個人執業估價師有承擔能力，也有助於提升國內不動產估價師之國際競爭力。此外，亦可推動投保業務責任險，以提高不動產估價師之風險承擔能力。

三、重新界定國內公部門估價目的並加強與不動產估價師合作

臺灣公部門估價源自於課稅目的之公告地價及公告土地現值，除了課稅目的之外，由於不動產估價師體制建立較晚，尚無不動產估價師前，公部門許多其他用途有估價需求時多逕採用公告地價、公告土地現值，導致目前課稅價格因功能用途繁多，原課稅目的之估價及評議結果反受牽制，難以反映真實價格。

參考各國公部門估價體制，多由稅務機關為課稅目的而評估課稅價格，私部門估價則委由專業不動產估價師辦理。而與台灣公部門(地政機關)評估體制較為相近的為日本。日本訂有公示地價法，由中央國土交通省委由不動產鑑定士於各地選取地價標準地，辦理評估，並經中央設置之委員會評議後公告為公示地價，以為地價控制之用。基於各種用途需運用地價者，再依其目的參考、運用中央公示地價訂定所需地價，例如：為課稅目的者，由各稅主管機關委託不動產鑑定士，視其目的按控制點地價為更細部地價評估或調整。

由於平均地權是我國的基本國策，地價與地稅均是促進土地利用平均地權的重要方法，而為解決現今地價及地稅問題，有必要對地價與地稅制度好好檢討。建議未來應朝向價稅分離、專業估價方向進行，並透過與不動產估價師合作，提升公部門估價之客觀性與專業性。

四、提升土地徵收補償估價之準確性及估價效率

國外徵收補償多以不動產估價師為辦理查估主體，就徵收標的為個別宗地估價，倘有徵收補償價額爭議，處理方式或由法院以私權爭執處理，或日本由土地收用委員會決定，或由土地法庭裁決等各有不同，而價格評估部分日本與南韓因有公示地價制度，故於徵收補償價格評估時亦需參考公示地價

辦理。

而臺灣 101 年實施實價登錄制度之前，不動產市場實際交易價格資訊不甚透明，長年採公告土地現值為徵收補償價格，改採市價補償時，需地機關一時難接受全面委託不動產估價師查估徵收補償價格，且由於臺灣徵收體制上，徵收補償價額是政府部門對被徵收土地所有權人之行政處分，倘全面委託不動產估價師，則對於估價師與政府之權責劃分及被徵收人救濟程序均需有所改變，故 101 年當時徵收補償市價之規劃仍以估價者估價，再經地價評議委員會評議方式決定，而估價者除不動產估價師之外，辦理公部門估價之地政機關亦得為之，惟縣市政府地政機關估價與評議者(縣市政府地價評議委員會)之角色、權責分工常為外界評為「球員兼裁判」，客觀性遭質疑。估價方式部分，則考量評估之效率與準確性，結合區段估價與宗地個別估價方式，由估價者考量個別因素，進行宗地估價，並且於區段地價估價作業系統建置「土地徵收補償市價查估子系統」協助估價人員辦理查估作業，已有本次印尼分享其發展徵收補償之準大量估價方式之雛型。

由於實價登錄實施迄今已累積相當多實際交易價格，近年也有民間組織運用實價登錄發展大量估價系統，近期本部亦提報精進實價登錄與地價查估制度計畫，將規劃開發電腦大量估價模型並建置相關系統。因此未來於土地徵收補償價額之估價部分，應可考量運用實價登錄資料並結合不動產估價師專業及經驗，運用此電腦大量估價技術，協助產製、檢視估價比準表，以更客觀且科學化方式評估價格，減少價格爭議。

五、鼓勵公私估價相關從業人員參與國際會議與宣導交流

資本全球流通已為國際趨勢，各國對於專業事務的交流更顯重要。而不動產投資也為資金流通的重要標的，臺灣亦為國際重要市場，從估價業務角度而言，透過正式外交途徑之交流或有難處，但在專業技術等非官方交流上仍有臺灣的立足點，亦可藉此拓展視野、掌握國際資訊。

本項會議除議程內之報告研討外，亦提供各國參與組織 1 個宣導攤位，讓各國與會人員於議程以外時間可輕鬆介紹、交流各國組織體制及運作情形。

因臺灣係以中華民國土地估價學會名義入會，代表團通常以估價學會幹部(多為學者)為主體，再加上大專院校不動產估價相關科系學者(通常為發表人)、本部、部分不動產估價師公會及部分縣市政府臨時組成，本次於宣導攤位之準備稍嫌薄弱。據估價學會表示，除政府部門編有公務預算之外，學會、公會經費欠缺僅能補助部分經費，故與會人員多為自費參加，更難以備置宣導品，需向相關單位募集宣導文宣及物品，致難有整體宣導主軸，實屬可惜。

2018 年下一屆(第 29 屆)會議將於墨西哥召開，赴會旅程時間及經費相較於亞太地區辦理更為增加，恐將影響民間組織、不動產估價師參與之意願。由於參與是類國際研討會是展現臺灣軟實力的機會，本部以不動產估價業務之中央主管機關立場，除本身應積極參與外，未來亦應鼓勵縣市政府編列經費參加，並協助估價學會等民間組織募集宣導經費，以向國際宣導台灣估價實力、拓展不動產估價師業務向外發展及培養承接國際投資評估案能力。

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THE DEVELOPMENT AND ADOPTION OF INTERNATIONAL PROPERTY MEASUREMENT STANDARDS (IPMS)

Background

Over the past few decades accounting and valuation standards have been developed at both at the international and local level under the umbrella of the International Financial Reporting Standards (IFRS) and International Valuation Standards (IVS). Whilst the usage is not yet universal, the number of countries that have adopted these as the basis for their local standards is significant and is growing all the time.

It is fair to say that in developing valuation standards the real estate sector has been the primary focus, and although other tangible assets, such as plant and equipment, and intangibles, such as businesses and intellectual property are now included, a significant proportion of the valuation profession focuses on real estate.

The value of real estate depends largely on the size of the asset being valued. In some Asian countries every property owner knows, or thinks he or she knows, the size of his or her property and will price transactions accordingly. Therefore every square metre of floor area makes a difference to the value of the asset. It is therefore surprising that we do not have a consistent basis of measurement across the different asset classes.

The methods of measurement used in the real estate industry vary considerably, both in their description and the way that they are applied. In some jurisdictions even the government uses different measurements for different purposes as each department has developed its own basis over the years. In the course of my experience of over 30 years in Asia I have come across the gross floor area, net floor area, construction area, saleable area, lettable area, gross lettable area, net lettable area, covered area, carpet area, and usable area, and I am sure there are others. However, even if the same term is used it can mean different things in different markets.

The term gross floor area is often used for development control to determine the amount of floor area that can be built on a given piece of land, but the way it is measured can vary widely. For example some markets include everything within the building envelope, some exclude areas below ground, some include floors that are allowed but have yet to be built, some include car parking but some do not.

Net, carpet and usable areas relate more to space that is occupied by end users, but the term lettable area is far less precise and can include the common areas of the building to various degrees.

All these differences mean that even the same term has a different meaning in different markets. This can lead to variations of up to 24% for the same area between markets.

The Need

Whether we like it or not, the markets are going global and real estate is no exception. As a consequence investors, developers and corporate occupiers are all seeking to hold real estate either as owners or tenants. The plethora of different building measurements around the world is both confusing and leads to business inefficiencies as data bases have to cope with inconsistent data which makes cross market comparisons difficult and laborious. For those markets with little foreign investment this may be perceived to be less of a problem, although there are few markets these

days where this is the case, but in even the smallest markets the inconsistencies in the way properties are measured for different purposes, by different entities or even at different times lead to market inefficiencies and lack of transparency.

Therefore if the same standards can be used across the globe the markets can become more efficient, more transparent, and easier to understand by all.

According to the World Bank 70% of global wealth is tied up in real estate of one form or another, so accurate measurement is critical to broad swathes of the population. Over 120 countries are using IFRS for financial reporting, and many of these subscribe to IVS as the preferred valuation standard. These standards need to be underpinned by reliable property measurement standards.

What Are Measurement Standards?

Measurement standards are quite simply a set of floor area definitions which are clearly set out and capable of interpretation and application by owners and occupiers of property across the globe. Different asset types may require different ways of measuring due to the nature of the property, but the broad definitions are applicable across the board.

Consequently it is essential that standards do not use terms that may have different interpretations such as gross floor area and net floor area. Instead if they have a neutral name or a number they can be seen as equivalent to commonly adopted areas without being exactly the same. This then makes them applicable across markets and does not conflict with commonly used local definitions.

How Are Standards Developed?

The starting point is to examine those standards in usage around the world at the moment. Surprisingly few markets have clearly defined measuring standards and some simply rely on the "official areas" from government, which may or may not be clearly defined. If we look at these standards we will see that areas divide into three broad types;

1) The area of the building including external walls.
2) The interior area, which can be used for categorizing different use of space.
3) The occupation floor areas in exclusive use.

These areas have different names in different markets and are measured slightly differently. The next question to answer is how are these areas used?

1) The area of the building including external walls is often used for planning, development and building control purposes to determine the permitted floor area that can be built on a site. It is also used for costing of development proposals.
2) The interior area is used by owners and managers of buildings to determine the efficient use of space and for benchmarking, and by users and service providers to compare data between different market practices.
3) The area in exclusive use is used by occupiers, agents, asset managers and anyone involved with the operation of a building.

After looking as these three broad categories the process is then to examine the measuring practices around the world to see if there is any consistency. If there is, then this becomes the basis of the new standard, with additional refinements based on good practices from other markets. Following this process ensures that the standards do not depart from current practice too much,

which makes them easier for users to adopt and builds on good practices already being used in the market. Having said this, there will be inevitably be some compromise involved as they will not be exactly the same as those used in every market due to the multiplicity of areas currently in use.

How Are Standards Applied?

The markets of the world can be divided into those that have measuring standards and those than do not. For those that do not the adoption process is relatively easy as the standards can be used directly or as a base for developing local standards. Either way it makes those markets more transparent, which is very important in attracting foreign investment and in building local institutional investors. Since these markets tend to be less well developed, adopting international measurement standards will be a great boost to the economy by making investment in and ownership of property much more straightforward.

For markets that do have standards adoption is more complicated because it requires a change in the way properties are measured. In many cases the changes will be minor and can easily be adjusted by a formula. In other cases dual reporting of floor areas may initially be required until the adoption of the international basis is widespread in the market. However, this is no different to the adoption of a new statutory basis of measurement as has happened in Hong Kong in recent years with the replacement of gross floor area with saleable area in sales brochures.

Replacement of statutory floor areas by international standards is even more complicated if there is a wide divergence, as it can impact on the application of laws and regulations, although in practice it is likely that international standards will again be used alongside the statutory areas until such time as the government sees fit to align them. This will likely depend on how highly the government values consistency with other markets, and between different departments within its own administration.

Development of Standards

The International Property Measurement Standards Coalition (IPMSC) was founded in early 2013 under the sponsorship of the World Bank. It had its first meeting in Washington DC in May 2013 when the 13 founding professional institutions with members in over 150 countries met for the first time to set out the scope of the coalition's work programme. The IPMSC dedicated itself to acting in the public interest to assist in making the real estate markets of the world more transparent.

A Standard Setting Committee (SSC) was formed soon after with oversight from a Board of Trustees (BOT). The SSC was formed in September 2013 from a body of experts from academic institutions and practitioners from a wide range of markets with experience in 47 countries. The intention was that as wide a range of opinions would be included at the standard setting stage to ensure that the end product was as close as possible to the optimum solution. As a final fail safe there was to be a formal open consultation to let as many people from different walks of life give their input into the draft to ensure broad acceptance.

The BOT determined that the priority order of the International Property Measurement Standards (IPMS) would be offices, residential, industrial and retail, with other more specialised uses following later.

The reason for this order is that the strongest interest was from commercial occupiers and investors in office buildings who already had global platforms in place that would be ready to adopt the new standards.

Residential standards have the widest application as a large proportion of people in the world own or rent the property in which they live and therefore have a keen interest in the size and value.

Industrial, whilst being an important asset class with wide application in many markets, is not as complicated as offices or residential due to the nature of the usage.

Retail is being left to last due the complexity of the many retail formats used around the world from the common shop house, high street shops, single storey neighbourhood or strip malls, multi storey shopping centres and department stores.

The draft IPMS for offices caught the attention of so many people that two rounds of consultation were done before the final version was published at the end of 2014. Since then the IPMSC has grown to over 70 organisations with support from a growing number of multi national occupiers and service providers.

The IPMS for offices, which can be downloaded from the IPMSC web site at ww.ipmsc.org, comprises three standards:

IPMS 1 is used for measuring the area of a building including external walls. It is defined as the sum of the areas of each floor level of a building measured to the outer perimeter of external construction features and reported on a floor-by-floor basis.

IPMS 2 is for measuring the interior area and categorizing the use of space in an office building. It is defined as the sum of the areas of each floor level of an office building measured to the internal dominant face (defined elsewhere in the standards) and reported on a component-by-component basis for each floor of a building.

IPMS 3 is for measuring the occupation of floor areas in exclusive use. It is defined as the floor area available on an exclusive basis to an occupier, but excluding standard facilities and shared circulation areas, and calculated on an occupier-by-occupier or floor-by-floor basis for each building.

The ways to measure to the standards is explained in detail in the standards including ample illustrations of the various technical points.

This format is being continued into the other standards. The second standard to be published on residential, which at the time of writing is due in the early autumn 2016, comprises the same three standards but with variations for different building types such as multi-storey occupation (condominiums/apartments/flats) and single stand alone residences (houses/villas),

The third standard on industrial buildings is currently undergoing public consultation and is expected to be published in early 2017. Retail will then follow later in the year.

The standards take a long time to prepare largely due to the need for constant consultation, both during the preparation stage and also after publication of the drafts, so as to produce a product that is as fit for purpose and widely accepted as possible.

Adoption of the Standards

The large and varied membership of the IPMSC already signals a widespread recognition of the need for standards. By joining the IPMSC those organisations have already committed to either adopt IPMS or to use it as the basis for their own standards. The first government to adopt IPMS as a national standard is the United Arab Emirates and others are expected to follow. Several well known multinational corporations have now made IPMS the mandatory standard to be used by their own staff and external service providers for dealings in their owned and occupied assets. The development community has been the slowest to adopt IPMS but it is expected that they will have to use IPMS if their major tenants are using them.

The Future

Following the completion of the standards for the four main asset classes the IPMSC will focus its attention on three main areas:

1) Reviewing the existing standards to see if any refinements or clarifications need to be made following feedback from users.
2) Producing standards for the more specialized property types e.g. hotels.
3) Promotion of the adoption of the standards globally, especially in markets using IFRS and IVS to ensure seamless integration of the different levels of standards.

Overall though, it is the support of professional organisations, commercial users, governments and practitioners that will ensure the ultimate success of IPMS.

David Faulkner July 2016

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THE CHANGING DYNAMICS OF VALUATION TRAINING TO MEET THE NEEDS OF THE GLOBAL BUSINESS ENVIRONMENT

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Abstract:

The traditional training of a valuer has been vocation based. Depending on the countries concerned, the training was either built environment or business environment focused. The modern training of valuers is usually carried out at the university or tertiary level with some offering specialised valuation training within a 3-year programme while for others, the syllabi is much widened to include related disciplines such as estate agency, property management and finance conducted in a 4-year programme. The current training of valuers by valuation organisations tends to be more comprehensive in nature in order to meet the future challenges. They are training valuers for the future. The future requires a valuer to be well equipped to understand the operations of the entity, that is, its business and assets which include both real estate and plants and machinery. This paper traces the training of valuers some decades back and compares the current training which is more diversified and aimed at meeting the changing global business environment and industry needs.

Keywords:

Global business challenges; modern valuation training; built environment; business environment; business valuation; intellectual property valuation

Introduction

The traditional training of a real estate valuer has been vocation based conducted not at the universities but rather at the technical colleges or polytechnics or by professional associations. Depending on the countries concerned, the training was either built environment based as in the United Kingdom or business environment focused as in the United States (Dasso & Woodard 1980; Lim, 1992). The modern training of valuers is usually carried out at the university or tertiary level with some universities offering specialised valuation training within a 3-year programme while for others, the syllabi include related disciplines such as estate agency, property management and finance conducted in a 4-year programme.

The current training of valuers by valuation organisations or some universities tends to be more comprehensive in nature in order to meet the future challenges. They are training valuers for the future. The future requires a valuer to be well equipped to understand the operations of the entity, that is, its business and assets which include both real estate and plants and machinery. This situation has evolved partly due to the global financial crisis in 2007.

Valuation training traditionally refers to the training of real estate valuers. The recent definition by the International Valuation Standards Council (IVSC) has widened the definition of a valuer to

include "any professional who is qualified to value". A valuer is regarded as someone who can value business, financial instruments or real estate. The training of valuer has now become more extensive and diversified.

This paper traces the training of valuers some decades back and compares the current training which is more diversified and aimed at meeting the changing global business environment and industry needs.

Previous studies

Real estate education and training has been a subject of much research and study by several institutions and researchers (Dasso & Woodard 1980; Schulte, 2002; D'Arcy & Taltavull 2009). We can examine these researches under three main areas, namely, real estate training in general; the curriculum and core competencies; and the methods of instruction.

Real estate training in general

In the early days, people were having difficulty in understanding as well as teaching real estate subject matter. Until about 1960, the emphasis was on licence preparation, salesmanship and professional development. In the United States the Gordon-Howell and Pierson reports led to a complete rethinking of real estate instruction at the university level (Dasso & Woodard 1980). The focus in training real estate professionals is either (a) multidisciplinary or (b) financial management in nature.

The American Real Estate Society carried out a survey of its members to determine the state of the art in the practice of the body of knowledge (BOK) and skills in real estate (Epley 1996). With the recent advances in computer and telecommunication technology and their linkage to each other, new forms of analysis and a new approach to the content and pedagogy of real estate education are proposed (Cannon, 1997). The recent development demands that the valuer also needs to acquire other skill sets with the convergence of different types of valuation particularly the valuation of real estate and business.

Curriculum and core competencies

The World Association of Valuation Organisations (WAVO) has determined the core competencies of a valuer to include the understanding of the following: principles of property economics; capital markets; varied approaches to values; analysis and report writing; valuation techniques and methodology; and principles of valuation mathematics. In terms of the main academic courses, the valuation curriculum should include the following main subjects:

- Investment and finance,
- Studies in property valuation,
- Urban planning,
- Law,
- Economics and management, and
- Construction technology.

The traditional real estate study is based on neoclassical economics where consumers are expected to make decisions that maximise utility and wealth in the context of given price and income constraints. Recent curriculum also explores the behavioural aspects of consumers in real estate decisions taking into consideration the consumer's tastes and preferences (Gibler & Nelson 2003).

Despite the need for academic rigour, valuation is a practical subject. A survey of graduate real estate students in Hong Kong suggests that for any good graduate real estate program, it is essential to foster the development of relevant professional industry experience and good communication and interactive skills (Jayantha & Chiang, 2012). In other words, the preference

is for instruction with practical industry inputs and curriculums that are more industry-oriented and focused on up-to-date know-how and developments in the field.

Researchers have explored the activities that constitute the body of knowledge of real estate practitioners in order to represent practice better so that real estate education can be aligned with industry requirements (Boyd, Amidu & Smith 2014). It was found that practice knowledge is critical to success in real estate.

Methods of Instruction

In addition to the traditional classroom instruction, various approaches to teaching real estate have been suggested by different researchers. These include the holding of interactive workshops focusing on skills development (Stubbs and Schapper 2011) and the application of active learning with substantial use of problem-based learning (Robinson 1993; MacVaugh and Norton 2012). Problem-based learning is a technique that employs real world problems, scenarios and cases in order to enhance the problem solving and critical thinking skills of students. This is particular useful in the context of real estate training (Anderson, Loviscek & Webb 2000). The use of actual case studies (Bassey 1999; Merriam 1998) of real life examples in analysing real estate issues has been applied. For the teaching of subjects such as sustainable real estate development or quality of life, case studies provide a useful way of illustrating the subject matter (Lim 2001).

Role plays and games have also been used as activities to impart knowledge on real estate sustainability to students (Cruickshank and Fenner 2012). Dieleman and Huisingh (2006) have described the benefits of playing games as a way of learning.

In recent years, new forms of teaching have been introduced to enhance student learning. With the advancement in technology, online learning such as blended learning has been advocated (Vaughan 2007; Purvis et al 2011; Poon 2012; Lim 2015). In simple terms, blended learning refers to the use of a combination of physical face-to-face lectures and e-lectures that are conducted using online technology. Blended learning provides institutions an opportunity to engage in using technology in conjunction with the more traditional delivery. It offers transformative potential for students by supporting active and meaningful learning (Garrison & Kanuka 2004).

Changing Global Environment

Great changes took place in the financial, accounting and real estate industries in the recent years. The Global Financial Crisis in 2007 produced global shock which resulted in a number of bank failures, declines in various stock indexes and corresponding reductions in the market value of equities and commodities world-wide coupled with the US sub-prime mortgage crisis which drastically reduced liquidity in the global credit markets.

Arising from the financial crisis, there were vast accounting implications which resulted in changes in the accounting profession that spilled over to the valuation profession on the need to meet the requirements of the international financial reporting standards. The crisis has indeed provided us with a valuable opportunity for valuers and appraisers to re-examine our methodologies and competencies, and formulate our own standards and best practices to meet the changing needs of a globalised world.

It is now necessary for real estate valuers to acquire knowledge and skills in financial accounting and business valuation to better appreciate the operation of business in a global world. It is no longer adequate for real estate valuers just to focus on property valuation. For example, in the proposed IVSC Standards, in the application of the Residual Method of Valuation to determine the value of land, if the property is closely tied to a particular use or business/trading activity, it is necessary for the real estate valuer to comply with the IVSC Standards on business or intangible asset valuation.

Implications of the Financial Market Development on the Valuation Profession

It is now history since the global financial crisis first began in 2007. A number of countries have recovered from the crisis, some have performed much better than others. As a result of the crisis, various governments introduced urgent measures to alleviate the problem. However, no one single measure has placed the financial markets on a sound footing. But there is greater international co-operation and co-ordination among the Finance Ministers of the larger countries.

The core issue arising from the volatile financial markets is whether the approach ie mark-to market valuation and fair value accounting is adequate for the tasks in the context of an inactive market. There are quarters asking for abandonment of fair value concept while others who ask for continuation of the existing approach. The accounting profession debated on the following questions:

- How do we measure fair value when relevant market evidence does not exist?
- Should 'market quotes' be used when assessing fair value in inactive market?
- Can distressed or disorderly transaction be indicative of fair value?
- Can transactions in inactive market affect fair value?
- When would we consider an investment impaired?

As was known the Finance Ministers and Central Bank Governors of the G20 nations met several times during the period in 2008-2010 to deal with the issue, and made a number of recommendations on accounting standards. International accounting bodies (FSAB and IASB) were asked to redouble their efforts to achieve a single set of high quality, global accounting standards within the context of their independent standard setting process, and complete their convergence project by June 2011.

One of the outcomes is the introduction of the international financial reporting standards (IFRS). Both accountants and real estate valuers would need to be familiar with them, particularly IFRS13 which deal with the measurement of fair value. Valuation training should include this aspect as part of the curriculum. The definition of "fair value" has given rise to some confusion to real estate valuer who is more familiar with the concept of "market value". The 3-tier hierarchy of input evidence prescribed in IFRS 13 has also caused some concern with real estate valuer who is used to subjective valuation rather than objective measurement. It is therefore necessary for both the accountants and valuers to understand how each profession undertake its measurement or valuation process, and work on an integrated approach to avoid auditing queries and misunderstanding.

Innovation and Intellectual Property

Another significant change in the global environment is the advancement in technology which is an important driver of the world economy. Academic research over the years has clearly established the crucial role that innovation plays in driving long term economic growth. The World Intellectual Property Office (WIPO) Annual Report 2015 highlighted the breakthrough innovations in the last few decades. Three current innovations mentioned are 3D printing, nanotechnology and robotics. Other innovation fields showing significant promise include genetic engineering, new materials and various forms of renewable energy.

In order to promote innovation, there is a need to have an environment conducive to innovative breakthroughs. Providing Intellectual Property (IP) protection will promote future innovation by ensuring that those who are driving it have the ability to recoup their investments and benefits from their breakthroughs. The IP system will facilitate the sharing of knowledge, by encouraging disclosure and for others to participate in the use of technology and undertaking innovations. Findings have shown that innovators in 3D printing, nanotechnology and robotics have relied intensively on the patent system to protect the outcomes of their research activities. The patent

system has played a useful role in appropriating returns on R & D investment, promoting follow-on innovation through technology disclosure and facilitating specialisation.

The WIPO 2015 Report also shows that global IP filings saw an all-time high, underscoring the importance of IP in today's global knowledge economy. In 2015, international patent applications filed under WIPO's Patent Cooperation Treaty System (PCT) grew by 1.7% to 218,000 with US filing 57,385 PCT filings and maintaining its lead. This is followed by Japan (44,235 PCT filings) and China (29,846 PCT filings). The three countries were most notable in leading innovation on computer technology and digital telecommunication frontiers. The Report also showed that US topped the list of trademark applications via WIPO's Madrid System which saw an overall growth of 2.9%, from 47,885 filings in 2014 to 49,273 filings in 2015.

In terms of contribution, the US Chamber of Commerce reported that IP-intensive industries directly accounted for 27.1 million American jobs and about US$5.06 trillion in value-added (about 35%) to its gross domestic product (GDP) in 2010. In Singapore, IP-related industries accounted for almost half of Singapore's GDP and generated 1.3 million jobs, which was some 43% of total employment in Singapore between 2011 and 2013 as reported by IPOS (Intellectual Property Office of Singapore). These findings testify to the importance of IP as a driver of innovation and economic growth.

Valuation of intellectual property is challenging. However, the global trend is towards more innovative and technology-driven economy. There is an increasing recognition that IP is a strategic asset for corporations and businesses. Hence, it is important for businesses to create, manage and leverage IP in order to optimise its value. IP protection will remain significant and relevant. Better understanding of factors affecting IP value proposition and methods used to determine such values accurately will go a long way to protect and encourage such innovations. There is great scope for IP valuation in future.

Concluding Remarks

The world is now getting smaller with countries, organisations and individuals very much linked through technology and the social media. The valuation profession plays an important role in the development of the global business and real estate environments. The market requires qualified and competent professional valuers who can perform in the global arena. Innovation and cutting-edge technology are important keys to success in addition to professionalism and regulatory control. In an increasingly global market place where the markets are interrelated, we need to embrace changes and globalisation. Innovation and technology will continue to be of great importance in the valuation profession to meet these challenges. The training of valuers to equip them with proper and varied skill sets to meet the challenges in the global business environment will become crucial in future.

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SEMI-MASS VALUATION STRATEGY FOR LAND ACQUISITION OF PUBLIC INFRASTRUCTURE DEVELOPMENT IN INDONESIA

In 2016, Indonesian government focuses on accelerating infrastructure development to increase the growth of national economic. The development of infrastructure requires an available land, even land acquisition. The land acquisition for public interest has been issued under the Indonesian Laws, Law No. 2 of 2012 and its derivative regulations. It states that the implementation of the valuation need to be done in 30 (thirty) working days. However, some cases of land acquisition have a very large area with thousands of asset owners so that it becomes impossible to make it only in 30 working days. In addressing this, it is necessary to have a strategy on compensation valuation in order to accelerate the infrastructure development in Indonesia. The purpose of this study is to find a strategy of semi-mass valuation to accelerate public infrastructure development in Indonesia, which is still in accordance with regulation, laws, and the Indonesian Valuation Standards. The objectives are to accelerate the data verification stage and the analysis stage. The strategy on data verification stage is by using surveyors. By all means, before the surveyors start working, valuer conduct a pre-survey to collect database to be used for the need of data analysis by using a computerized method. Computerized method is used in order to avoid a manual miscalculation. So that, the inputted data will directly produce a compensation value as the output. The computerized semi-mass valuation strategy can be used for any valuer. These techniques and method is able to save either time, energy, cost and accelerate the public infrastructure development in Indonesia.

Keywords: valuation, land acquisition, public infrastructure development, computerized method.

1. Introduction

In 2016, the Indonesian government is focusing on accelerating the infrastructure development to consolidate a qualify foundation of ongoing development. It aims to increase the growth of national economic. The improvement of national economic itself is important in increasing humans' prosperity, job opportunity, national productivity, and improving the property distribution. In order to achieve that, the Indonesian government has reformed the law and regulation of land acquisition for public interest. It is the Law No. 2 of 2012 on land acquisition for public interest. The law has more strengths than the previous, those strengths are (1) the intelligibility of the period for the realization of land acquisition, (2) intelligibility from the responsible party for each stage of land acquisition, (3) the transpiration of the output of each stage of land acquisition. This law also has other related derivative regulations.

One of the derivatives of Law No. 2 of 2012 is the Presidential Regulation No. 99 of 2014 which is amended from the Presidential Regulation No. 71 of 2012 on the Implementation of Land Acquisition for Public Interest. In Article 63, Section 1, states that the determination of compensation value by the Chief of Land Acquisition Implementation is based on the valuation result from valuer. In Article 63, Section 3, Presidential Regulation No. 71 of 2012, emphasizes that the valuation process needs to be done in 30 (thirty) working days.

This regulation has been bonded yet the issue of land acquisition. First, a large area of land acquisition that reaches thousand hectares. Second, a high number of people who have the right of the area, known as asset owners of land acquisition, that reaches thousands of people. Such situations certainly need longer time off to complete the project.

Therefore, it is necessary to have a strategy in order to overcome such conditions. The strategy which is needed is semi-mass valuation strategy which is able to accelerate the infrastructure development for public interest in Indonesia but still in accordance with the implemented laws, regulations, and the Indonesian Valuation Standards (abbreviated SPI).

2. Methodology

The infrastructure development in Indonesia often needs a large area with thousand asset owners. It is a challenge for valuer, because the regulation forces the valuer to produce compensation value in 30 working days. The problem in this study is there was no compensation valuation strategy of land acquisition for public interest yet in Indonesia, which is able to save either time, energy, and cost. In addressing this problem, this study develops a semi-mass valuation strategy to save time, energy, and cost based on the implemented laws and regulations, which is also in line with SPI trough: (1) accelerating the data verification stage, and (2) accelerating the analysis stage using the computerized method.

This study used descriptive-qualitative approach in order to know the regulation and stipulation related to land acquisition for public interest. Besides, this study used content analysis method. Content analysis was done in order to create a strategy on compensation valuation and focuses on the development of computerized semi-mass valuation based on the valuation concept, procedure, and the implemented laws and regulation.

The discussions start of the description of the implemented laws and regulations on land acquisition for public interest and the role of valuer in Indonesia. Then, it is followed by a description of compensation value concept using analysis steps to create compensation value. The analysis needs an effective and efficient strategy to be used by valuer, but still focuses on two important stages which can be intervention (data verification and analysis). The result is a semi-mass valuation strategy on land acquisition of development of public interest in Indonesia.

There are some notes in this study: First, this study focuses on the compensation valuation of land acquisition, which has a very large area with thousands or more of land owners so that it is oriented to accelerate the valuation process. Second, the valuation strategy is in the form of semi-mass since this study used some of mass-valuation approach. However, this study still pays attention on the analysis of each object based on its own characteristics. Third, the intended computerized strategy is a valuation formula in the form of a table which is created by the valuer based on the needs or involved issues by using Microsoft Excel and others. Therefore, this study delivers a semi-mass valuation strategy for land acquisition of public interest in

Indonesia.

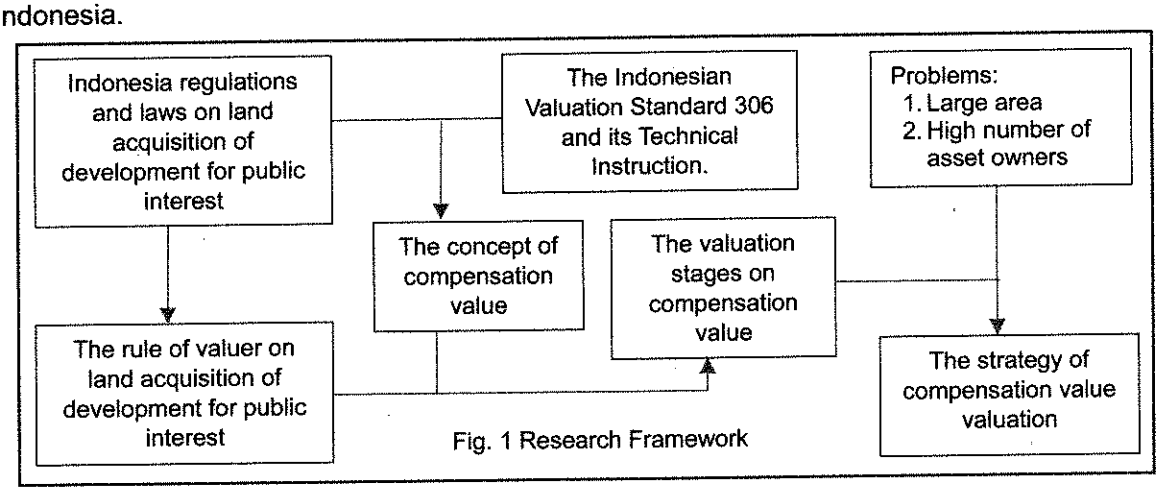


Fig. 1 Research Framework

3. Laws and Regulation of Land Acquisition for Public Interest in Indonesia and The Role of Valuer

The land acquisition has been implemented long before. The first regulation that particularly manage it, was President Regulation No. 36 of 2005 until the new one created, that is Law No. 2 of 2012 and its derivative regulations.

3.1 Laws and Regulation of Land Acquisition for Public Interest in Indonesia

The recent condition, the government has been reformed the laws and regulations related to the land acquisition to Law No. 2 of 2012 about Land Acquisition for Public Interest. The supporting laws are: (1) President Regulation No. 71 of 2012; (2) President Regulation No. 40 of 2014; (3) President Regulation No. 99 of 2014; (4) President Regulation No. 30 of 2015; (5) Regulation of The Head of National Land Authority of Republic of Indonesia of 2012; (6) Minister of Home Affair Regulation No. 72 of 2012; and (7) Minister of Finance Regulation No.13/PMK.02/2013.
The Law No. 2 of 2012 consists of 4 (four) stages (*table 1*).

Table 1. Four Stages of Law No. 2 of 2012

Stages	Output	Director
Planning	Planning Document: the purpose of development planning, conformity of space arrangement, position and the land acquisition area (public consultation)	Agency that requires a land
Preparation	Location Determination: begin with public consultation and the society can propose an objection.	Governor (can be delegated to the regent/mayor)
Implementation	Discontinuance of law related. Compensation to the one who deserve to accept it. Society can propose an objection.	Head of National Land Authority
Output Delivery	Delivering the certificate to the agency that requires a land.	Head of National Land Authority

3.2 The Role of Valuer in Land Acquisition for Development of Public Interest.

Through Law No. 2 to 2012 about Land Acquisition for public interest, the government has chosen the valuer who given a task to value the object which is included in land acquisition and also summarize the criteria of the valuer, in this context the valuer means the one who has been appointed by the minister of finance and got the license from the land institution or National Land Authority. In doing the job, the valuer must be professional and independent, while the procurement should be done through open and public auction.

The role of valuer regarding to the land acquisition for public interest has been guaranteed by the Law no. 2 of 2012. The articles related to the roles of valuer are here as follows:

1. Article 1 Section 11: The land valuer which then called as a valuer, is the one who made the valuation independently and professionally who has got the license from the minister of finance and land institution to calculate the object value/price of the land acquisition.
2. Article 31 Section 1: The land institution appoints the valuer based on the provision and constitution legislation.
3. Article 32 Section 1: The valuer that has been appointed according to article 3 paragraph 1 must be responsible for the valuation that has been conducted.

   The infraction of the valuer obligation according to paragraph 1 is given an administrative and/or criminal sanction in accordance with the provision and constitution legislation.

4. The Concept and Procedure of Compensation Valuation in Indonesia

4.1 Compensation Value Concept based on Indonesian Valuation Standards and Regulation

The value concept in a compensation value based on the Law No.2 of 2012 are: (1) buyer (agency that requires the land) who interest in selling, but tends to buy; and (2) seller (the one who deserve) does not have an interest in selling but tend to sell. While the value of the normal transaction which refer to the market value have the principle of willing buyer, willing seller, buyer and seller who know the benefits of the property, and the transaction is conducted without any enforcement.

Therefore, Indonesian Valuation Standards make a concept of *fair replacement value* or usually called as compensation value. The definition of compensation value is a value of interest of the owner which based on the equality of the market value on a specific property by looking at the extraordinary elements which is non-physical loss caused by rights take over on a specific property (SPI 306: 3.10).

The compensation value consists of 2 (two) components, that are physical loss (material) and non-physical (immaterial). The object of the compensation includes of land, space on the above and beneath the land, buildings, crops, and things related to the land like utility and infrastructure that completes the land (SPI 306: 5.8). While the object of non-physical compensation consists of the loss of job, business, includes the profession take over; emotional loss (solatium); transaction price; compensation for the waiting period (interest), loss of left over land, and any other physical loss (SPI 306; 5.9). To produce a compensation value, every value of the object must be calculated, whether it is from physical or non-physical components.

4.2 Procedure to Conduct a valuation of Compensation Value in Indonesia

In order to conduct a compensation value, here is a procedure to conduct a valuation of compensation value that is commonly held.

1. Preparation/approachment of secondary survey/desk study (problem identification and definition of the duty).
2. Field survey/ primary survey approachment (data collection and election): Physical investigation and verifying legal asset in the field (specific data); General data collection (neighborhood) and market data.
3. Doing the analysis: Asset valuation according to the selected approach and method; Reconciliation of value indication and final value opinion,
4. Report compiling
5. Presentation and discussion
6. Delivering the final report

5. Analysis and Discussion

5.1 Semi-Mass Valuation Strategy for Land Acquisition for Public Interest in Indonesia

Semi-mass valuation strategy for land acquisition for the public interest in Indonesia used a computerized method which is made based on the needs of valuer. This computerized method is a calculation table which is able to process how to calculate manually into a computerized calculation based on the data input of the verification results in the field. The computerization in the study used Microsoft Excel or other programs based on the valuer's interest. Furthermore, the compensation value is generated automatically without doing a copy-paste formula for each sector such as the valuation process in general. These are the semi-mass valuation flow for land acquisition for public interest in Indonesia.

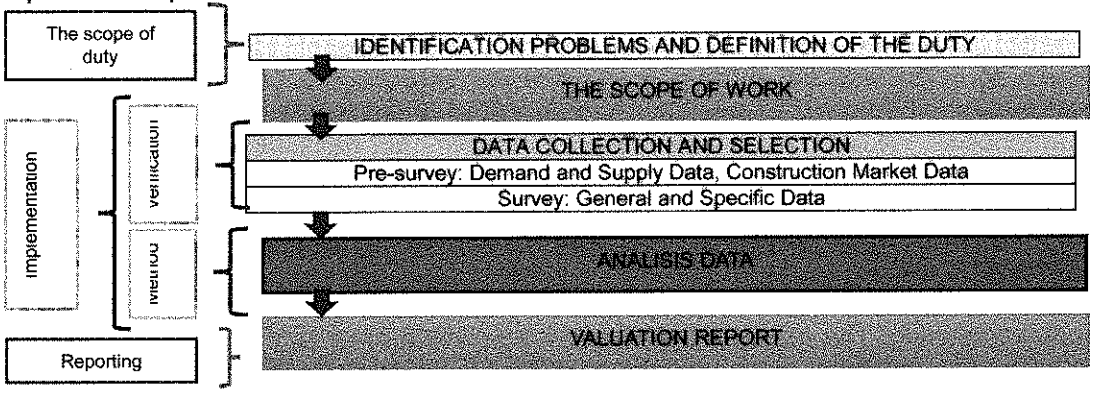


Figure 4. Semi-Mass Valuation Flow of Land Acquisition of Development for Public Interest in Indonesia

Steps in the semi-mass valuation strategy for land acquisition for the public interest in Indonesia, namely:

1. Preparation

a. The preparatory work is very important to note because it affected the smooth work in the field, including the identification of the problem and the scope of duties, and the implementation planning of the whole work including the mechanisms and procedures.

b. Valuer start the valuation work after the appointment is published by the Land Institute. However, a strategy that can be done is doing preparatory work before receiving data from the Land Institute. Thus, the necessary things are as follows:

   1) Valuer conduct preparation related to the problem identification and scope of the duties;
   2) Implementation planning of the whole work which included:
      a) Preparation of a team, and technical briefing to the valuer and the whole teams (data typist, administration, etc.) involved.
      b) Preparation of Pre-survey equipment and Survey, including setting up the Asset Verification Form.

2. Pre-Survey

Knowing that the area/asset is considered quite large and spread out, and work completion time is very limited, it is necessary to conduct a pre - survey of primary and secondary data which are relevant to the valuation object to accelerate the valuation process of the compensation, which are:

a. Pre-survey of market value of the land;
b. Pre-survey of value of buildings and facilities of settlement building;
c. Pre-survey of value of buildings and facilities of industrial buildings;
d. Pre-survey of other things based on the needs.

Data collected in the pre-survey are compiled and included as a database from the computerized valuation table.

3. Survey/ Data Verification in Field

The survey is conducted to collect general and specific data. Data verification is conducted by physical examination and legal asset in the field after receiving a nominative list of the owner of the Land Institution, including location, characteristics of the soil, legality, physical building, the process of production, supporting equipment or other tool, physical heavy equipment and vehicles, and proof of mastery.

4. Data Analysis

To determine the value of compensation, the data collected and are analyzed by processing the data input of the verification results in the field.

5. Preparation of Report

5.2 *Analysis of Acceleration in Data Verification Phase*

After the valuer gets a nominative list (abbreviated DNP) from the Land Institution, which is the result data of the inventory and identification of mastery, ownership, use, and land use, DNP has to be issued in the district office (in village/urban-village), sub-district office at most in 14 (fourteen) working days (Law No. 2/2012, Article 29, Section 1). After it is issued, and passing the objection period of Party Entitled, the issue results or verification and improvement set by the

Chief of Land Acquisition Implementation and become the basis for determining the Party Entitled in granting Compensation (Law No. 2/2012, Article 30).
Based on those articles, the valuer is only able to give compensation value based on DNP. Furthermore, the compensation value based on the valuation, become the basis into the deliberation of the determining kinds of compensation (Law No. 2/2012, Article 32, Section 3).
Generally, the steps taken by the valuer is coming directly to the field to verify the data. However, to save the time, energy, cost, and to support the acceleration of infrastructure development in Indonesia, which is still in accordance with the regulations and the SPI, is by making a breakthrough in the verification data phase. The stage of verification data start the preparations since the data collection phase of the pre-survey is conducted. Therefore, there are some steps that need to be done:

1. Pre-survey of market value data

The valuer conducts a survey in the field to collect transaction data comparison (demand and supply data) which are relevant to the object of the valuation. These are the data that need to collect:

a. The data of Market Value of Land: Finding the data of land value for soil type based on the width of the road and proof of ownership (a sale deed, title of land ownership, or certificate). The number of types of soil, and types of road width depend on the condition of the land acquisition area.
b. Data of Value of Buildings and Facilities of Settlement Building: Data collected based on the types of building (residential buildings, rented buildings, buildings for businesses, public facilities, building facilities). Furthermore, these are the types which has been grouped:
    1) Residential Building
        a) Permanent Building with 2 Stories: Type 1, Type 2, and so on. Differentiated by the construction specifications.
        b) Permanent Building with 1 Story: Type 1, Type 2, and so on. Differentiated by the construction specifications.
        c) Semi-permanent Building, Type 1, Type 2, and so on. Differentiated by the construction specifications.
        d) Terrace (by specification)
        e) Bathroom (semi-permanent, permanent)
    2) Rented buildings (divided into several types based on the construction specification)
    3) Building for Business (divided into several types based on the construction specification)
    4) Public Facilities, including building of public facilities (government offices, religious buildings, schools), and facilities of building (septic tanks, water torn, water tanks, fences, gates, pavement yard, canopy, cages, fish pond, channels, and other facilities based on the needs).
c. Data of Value of Buildings and Facilities of Industrial Building
    Categorized into factories, warehouses (with various types), los/workshop, ground tanks, building generator, transformer. Facilities of building, such as pavement yard and road of

industry (paving of the warehouse area, concrete of the plant area, asphalt/hot mix of plant area and warehouse), fence (based on the height and material), septic tank, water tank industry (horizontal tank, rectangular tank), deep well (deep well pump, deep well drilling based on the depth).

2. Data Input of the Pre-Survey Results to the Computerized Calculation

Based on the results of the pre-survey, the data collected into a database to the computerized method. Computerized Calculation Table made the database become a reference calculation to generate compensation value. This made the valuation strategy become semi-mass, because the valuation conducted is still one by one object based on the database that has been categorized in accordance with the needs.

3. The Use of Surveyor to Help the Data Verification

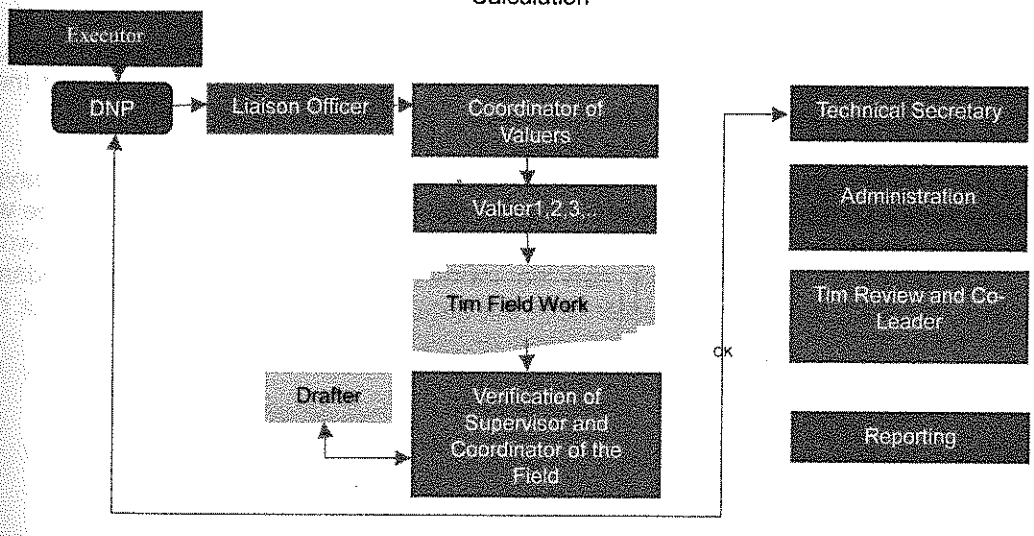
After the results of the pre-survey synchronized into a computerized calculation table, then the data verification in the field started. Besides having verification form that is adapted to the computerized calculation table, the data needed for data verification in the field are DNP of the Land Institute.

The used of surveyors depend on the object volume of valuation. Yet, the important thing to remember in this stage is the surveyor has to be supervised by the valuer. This has to be done to prevent the surveyors in making an error during the data verification, and the process of valuation of compensation value has to be in line with SPI which indicated that the data verification should be conducted by the valuer. In this strategy, the valuer has to verify the data and assist the surveyors. Thus, it is expected that the use of surveyor is able to accelerate the process of the valuation of compensation valuation so that the process of the work is completely suitable with the law, regulation, and SPI.

5.3 Analysis of Acceleration on the Phase of Valuation Analysis Using Computerized Method

The results of the pre-survey, DNP that is verified into input in the computerized calculation table. To carry out this process required the data input process that has been revised by the valuer. Thus, the data processing flow during the process of the valuation of compensation value would be explained in the following Figure.

Figure 5. Data Processing Flow during the Process of Valuation of Compensation Value using Computerized Calculation



Based on the acceleration strategy at the stages of data verification and the analysis using the computerized method, th Not OK ıtages and disadvantages of this strategy are as follows:

Advantages:

1. Avoiding the errors in manual calculation
2. Avoiding the errors in the usual Excel calculation because it does not require a copy-paste the template calculation for each sector or object.
3. Can be applied to a very wide sector with many asset owners, so that the valuer does not need to make a consortium with other parties.
4. Saving time, energy, and cost
5. Indication of compensation value can be obtained prior to verification in the field
6. The calculation of the value can not be changed in each sector or object, so that it is useful to prevent the corruption.

Disadvantages:

1. Requiring a good and more preparation
2. Taking as much time to arrange a computerized calculation automatically
3. If the database entered is not valid or wrong, it will cause bad effects to the value of the object.

6. Conclusions and Recommendations

The infrastructure development for public interest in Indonesia often requires a large area with thousands of asset owners. It is a challenge for valuer due to the time demands of the formulation of the compensation value for 30 (thirty) working days. Therefore, it is very needed to have a semi-mass valuation strategy that can save time, energy, cost, but also accelerate the development of the public interest in Indonesia, which is in line with the law and regulation, and the Indonesian Valuation Standard by doing these ways:

1. Accelerating the data verification stage by doing pre-survey to the data that can represent the objects and characteristics of the land acquisition and to use the surveyor's services in verifying the data in the field. Pre-survey is conducted to obtain data on the market value of land, buildings, and facilities of settlement buildings (houses, rent houses, business area, and public facilities). Data compiled become a database for the computerized calculation table. The next is using the services of surveyor to verify the data in the field as an extension of the valuer.
2. Accelerating the analysis stage using the computerized method. Based on the results of the previous stage, the data collected can be imported directly into the computerized method table that directly generates a compensation value.

Recommendations that can be given are as follows:

1. Making the deadline for the implementation of compensation valuation become 30 days has not paid attention to the many cases of land acquisition in Indonesia. Thus, it would be wise if the rules are created based on the area of land acquisition and the number of asset owner.
2. The computerized calculation table can be carried further into an open, standardized application, in which the user can enter both the database input and nominative data of the

results of the verification in the field, and can directly generate the compensation value.

3. Valuers need to be up-to-date with information technology so that it can facilitate them in doing their job.

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APPLICATION OF CONTINGENT VALUATION METHOD IN THE REAL ESTATE APPRAISAL – A PRACTICE ON WAI SHA FENG SHUI FACTORS

Chiou-Mien Lin [1], Chih-Peng Chang [2]**

1. Introduction

In Asia, Feng Shui is one of important reference factors when purchasing a house. Although Feng Shui kinds of categories and for distinguishing subjective, pay attention to those who believe, unbelievers scoff, this as superstitious nonsense; Ultimately, does Feng Shui really influence on housing price? Related research in the past, the use of hedonic price method to be explored, but on the results has no effect of each argument, for example with "Lu Chung" factor, some researches indicate that it makes housing price decline 10% to 20%, while the others demonstrate that "Lu Chung" has no significant influence on housing price. It means that awareness of Feng Shui of the researcher is quite subjective and it will influence the result of research. Therefore, this study uses the method of Contingent Valuation Method (C.V.M) to discuss the degree of decline of housing price in people's minds. In order to make the effective information about housing price gets more transparency and provides as basis of appraisal and reference for people who appraise real estate valuation.

2. What Is Wai Sha Feng Shui

Feng Shui is an airflow energy that interacts by the natural elements "wind" and "water". If this airflow influences the residence, it called "Sha Chi' then' because Sha Chi is a negative energy it will produce a certain kind of effect on health, fortune and psychological feelings of residential occupants (Hsieh, Yung-Jin, 2005). And Feng Shui's influence on housing price is always mainly decided by the "Sha Chi" whether exists around the residence or not.

There are two types in Sha Chi including "Wai Sha" and" Nei Sha". Wai Sha means an outer negative energy that is generated from outside facilities such as mountains, roads, buildings or public infrastructure around the residence and produces an effect on residence. Nei Sha means an inner negative energy that is born from internal construction of the house such as the layouts, the interior decoration or the displays and other items to

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generate an effect on the negative energy.

However Nei Sha would be improved by interior decorating or adjusting the furnishings. The impact of it is much easier being improved than Wai Sha because the components of Wai Sha such as buildings or roads, their position are hard to be changed (Hsieh, Yung-Jin, 2005). Therefore, this study would like to use Wai Sha as the research spindle to discuss the influence on the housing price.

Moreover, Lin, Chu-Chia and Ma, Yu-Jyun (2009) indicated that there are much more public infrastructures also belonged part of negative Feng Shui. Such as crematorium, landfill, airport etc., because those infrastructures would affect the residential environment. And Huang, Kan-Chung et al. (2012) also indicated it in a scientific point of view. So the Wai Sha factors of this study also includes the NIMBY (Not In My Back Yard) facilities to discuss that the influence of Feng Shui on housing price. This study discusses the literature of reviws that contain the influence of Wai Sha Feng Shui(?) on housing price, the decision-making of house purchasing and the cognitive degree of Wai Sha Feng Shui. To generalize eleven Wai Sha Feng Shui factors that house purchaser usually taboo in appendix 1.

3. Method of Research

In the past, the research between Feng Shui and housing price is almost analyzed by the method of hedonic. But Feng Shui is quite subjective, whether Wai Sha Feng Shui exists in the residence or not always decided by the subjective point view of researchers. We cannot examine the cognition, which means the influence of Feng Shui on housing price between the researchers and inhabitants is the same. Besides, the characteristic of Feng Shui is usually concluded in environment, the valuation is not calculated by the market transaction (Huang, Yu Chih, 1999). Base on the reasons above, the method of hedonic cannot examine comprehensively the effect of Feng Shui on housing price. Wherefore, this paper would like to use the way of direct questionnaire of CVM (Contingent Valuation Method) to discuss whether the eleven Wai Sha Feng Shui factors influence the housing price or not and general residential purchaser will taboo what kind of Wai Sha factors, finally investigate the degree of reduction on housing price at the same time. Besides, in order to decrease interviewees' refusal rates and the problem of starting bias, plus overcome the problem that is no real price data in the market, this study selects the method of payment card of CVM to provide a range of the degree of reduction on housing price to make the interviewees answer the real reduction price in their mind and accomplish the researchable purpose of this study.

4. Data of Research

4.1 Empirical Area

There two empirical areas picked in this study which are Changhua City and Lukang Town. According to the result of literature of reviews, we found that general house purchasers most taboo the Feng Sui factors that are related to death, ghost or concern tombs or temples. Therefore, this study chose Lukang Town to be the research spindle because it is a traditional area and the density of temple is the second in Taiwan. Besides, in order to make this study to be comprehensive and compare the difference that people lives in different residential area whether react differently on Feng Shui factors or not at the same time, this study chose an area to be a comparison which is more modern than Lukang Town and also governed by Changhua County, and that is Changhua City.

4.2 Design of Questionnaire

The questionnaire contains three parts; first part is about a set of questions concerning the cognition of Feng Shui, respondents were asked twelve questions whether they cognize each Wai Sha factors. This part is designed by the method of Likert scale; there are five levels in each question, if respondents very understand this Wai Sha factor then pick the box of "very understand" and the score is five, followed by "understand" is four, "general" is three, "not understand" is two and "not very understand" is one.

Second part is a set of questions concerning the CVM that is about degree of decline of Wai Sha factors on housing price. Respondents were asked eleven questions that the degree of decline of each Wai Sha factor; there are eleven levels in each question, if respondents very taboo this Wai Sha factor then pick the box of "do not purchase this residence " and the score of taboo is eleven, but if the housing price decline then respondents will buy this residence then pick a decrease percent ratio that ranges in 10% to 90%, depends on the taboo degree of they caring. If respondents care less the Wai Sha factors then pick a box of 10% and so on.

Final part is about the basic information of interviewees, including gender, age, educational background, job, monthly income, religion and residential area.

4.3 Data of Questionnaire

This study would like to get the real decline degree of housing price that influenced by Wai Sha factors, so use a direct interview way to ask the respondents.

According to cross calculation of total population and the error range under 5%, this study totally sent 450 questionnaires in February to May 2015. And Changhua City sent 340 questionnaires; Lukang Town sent 110 questionnaires, because the population of Changhua City is three times more than Lukang Town. Besides, the interviewees chosen

by random but to ensure the cognition of Feng Shui would qualify the purpose of research, the interviewees' age must up than 20 years old.

The 413 questionnaires were collected totally, the effective parts are 348 (Changhua City is 262 and Lukang Town is 86) and ineffective parts are 65 (Changhua City is 43 and Lukang Town is 22). The reasons for ineffective questionnaires are about the residential area doesn't qualify for this study or some questions are missed et al. The statistical results are in appendix 2.

5. The Results

5.1 The Awareness of Wai Sha Feng Shui Factors

The cognitive degree of Wai Sha factors is so subjective, the results of questionnaire show that most of the interviewees do not have clear cognition of Wai Sha Feng Shui. The researcher has to explain the characteristic of Wai Sha factors clearly to get the real price reduction in the interviewees' mind.

This result also shows that the residential purchasers do not bargain the housing price when they buy a residence which Wai Sha Feng Shui exists because they do not realize Wai Sha Feng Shui factors clearly although they taboo the factors very obviously. Perhaps this phenomenon can explain why the same Wai Sha Feng Shui factors make the different result on the influence of the housing price, because of different cognition in Feng Shui.

The results of cross-analysis between cognitive degree of Wai Sha factors and social attributes of interviewees:

1. Lu Chung, Reversed Bow Sha, Wall Blade Sha and Yao Jan Sha are highly significant correlation between the awareness of Wai Sha and attribute of gender; especially the male genders realize those factors clearly.
2. In the attribute of age, Lu Chung, Electricity- Related Infrastructures and Haunted House are not significant correlation with cognition of Wai Sha factors, but the others are highly significant. Especially the ranges are in 20-40 years old.
3. Only Haunted House is highly significant correlation between the awareness of Wai Sha and attribute of education; and the interviewees who educational background above senior high school have obvious cognition of Feng Shui.
4. The interviewees with religion belief have higher awareness of Feng Shui than those who do not, especially in Wall Blade Sha, Scissors Sha, and Dead End Alley, Haunted House etc..
5. Monthly income in the 20-40 and 40-50 NT thousand dollars of the interviewees are a higher awareness of Yin Xie Sha, Yao Jan Sha and Ya Ding Sha.

6. There was no significant difference awareness of Wai Sha Feng Shui factors between the interviewees in different religious beliefs and those in different residential areas.

5.2 The Taboo Degree of Wai Sha Feng Shui Factors

The literature of reviews show that inhabitants have higher taboo of Wai Sha factors which are related to dead or influence on health first, that is Haunted House, Electricity-Related Infrastructures and Yin Xie Sha. Second taboo the factors that are related to roads or transportation position such as Lu Chung, Scissors Sha, Reversed Bow Sha and Yao Jan Sha because these Sha Chi always threat residents living on security. Finally, inhabitants taboo the Wai Sha factors that born from the position or location of buildings such as Dead End Alley, Ya Ding Sha, Tian Jan Sha and Wall Blade Sha, but the effect cannot be proof that are related to these Sha Chis. Therefore, the degree of people taking these Wai Sha factors as a taboo is the lowest.

The results of cross-analysis between taboo degree of Wai Sha factors and social attributes of interviewees:

1. In addition to the two factors of Yin Xie Sha and Haunted House, in the gender attribute, there is no significant difference in the extent of its taboo, But the others factors are highly significant correlation with gender, especially the female gender taboo the Wai Sha Feng Shui factors most.

2. In the attribute of ages, except Scissors Sha, Electricity- Related Infrastructures and Haunted House are not significant correlation with taboo degree of Wai Sha Feng Shui, but the others factors are highly significant correlation with it. Especially the interviewees' age range in 31-40 and 41-50 years old taboo the most.

3. In the education background, all of Wai Sha Feng Shui factors show highly significant correlation among interviewees. Especially the degree of education for the University of the interviewees are the highest.

4. The interviewees were not significantly different from the religious beliefs, except Scissors Sha. And the interviewees who believe in Buddhism and Taoism taboo the Wai Sha Feng Shui factors most than who believe in Christian and Catholicism. Especially the Lu Chung, Yin Xie Sha and Haunted House factors.

5. Different monthly income of the interviewees, there are no obvious differences in the degree of taboo on Wai Sha Feng Shui factors, in addition to the Haunted House. And the interviewees whose monthly income ranges in 20-40 and 40-50 NT thousand dollars taboo it the most.

6. The degree of Wai Sha Feng Shui factors that people consider as a taboo is not any difference among the residential area.

5.3 Wai Sha Feng Shui Factors Influence on The Housing Price

The result found that most of interviewees would not purchase a residence that the Wai Sha Feng Shui factor exists if they can realize it clearly. Moreover, it also shows that Wai Sha Feng Shui factors influence the housing price highly significantly and indicate that when the Haunted House is more famous then the housing price decline much more at the same time. But the residence exists the Wai Sha Feng Shui factor that interviewees would like to bid, the degree of decline of housing price will depends on the effect of Wai Sha Feng Shui factors. In this study, the degree of decline in housing price ranges is 10%, 20%, 30% and 50%.

The result of housing price reduction on Wai Sha Feng Shui factors:

1. The factors that are related to death, ghost or direct influence on health is the highest decline on housing price degree, such as the Haunted House, Yin Xie Sha and Electricity-Related Infrastructures et al factors, the degree of decline ranges about 50%.
2. Secondly, the factors are related to traffic accident is moderate degree of decline on housing price, such as Scissors Sha, Reversed Bow Sha, Yao Jan Sha, Lu Chung and Wall Blade Sha, Tian Jan Sha. The degree of decline on housing price is about 20-30%.
3. The factors that are the lowest degree of decline is Dead End Alley and Ya Ding Sha, the degree of decline on housing price is about 10-30%.

6. Conclusion

1. The interviewees almost do not purchase a residence that exists Wai Sha Feng Shui factors. It means that Wai Sha Feng Shui influences on housing price obviously. But this result does not react on the real transaction-housing price because there is still a gap between the interviewees' cognition and real awareness of Wai Sha Feng Shui.
2. The interviewees who would like to bid the residence that exists Wai Sha Feng Shui factors, first taboo the factors that are related to death, ghost or direct influence on health, second taboo the factors that are related to traffic accident.
3. There is no significant difference of the degree of people taking Wai Sha Feng Shui as a taboo among different attribute of residential area or different awareness of Wai Sha Feng Shui factors.

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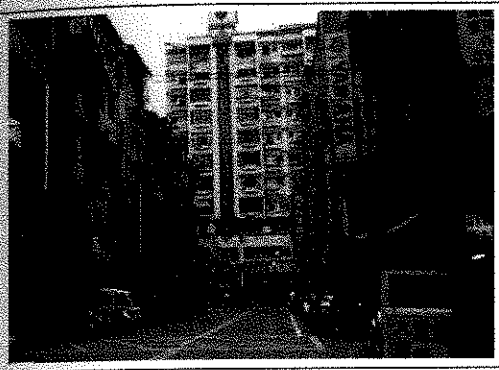
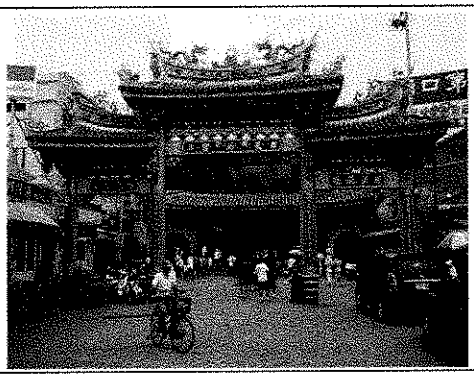
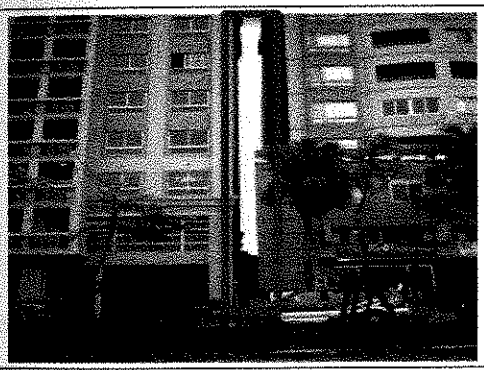
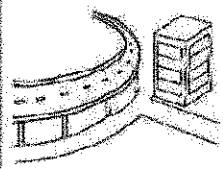
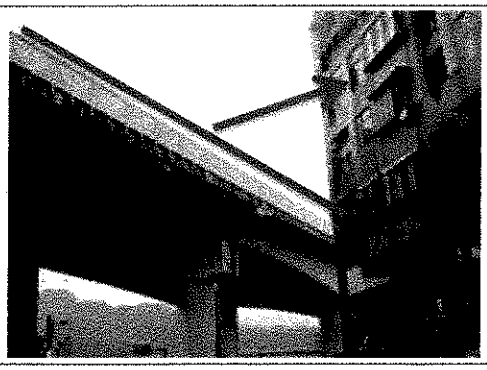
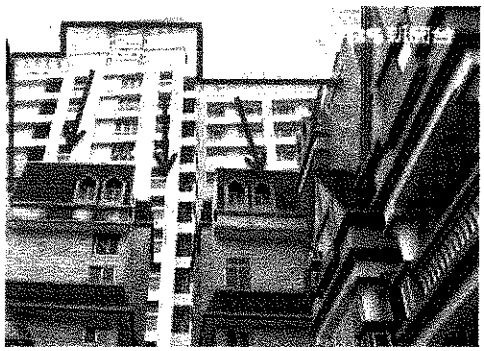
Appendix 1

The types of Wai Sha Feng Shui	
Lu Chung	**Yin Xie Sha**
	
When a road or thoroughfare heads directly towards any of four sides or eight corners of a residence.	The house is closer to temples, shrines, cemetery, funeral home or hospitals.
Tian Jan Sha	**Reversed Bow Sha**
	 
The front door of house facing the narrow alley of two buildings.	The house situated outside of an arching road or river, the shape looks like a bow directed towards the house.
Wall Blade Sha	**Scissors Sha**
	
One side of a house directly or obliquely faces the side of the wall of another house; it looks like a knife stabbing into the house.	The front door of house facing a Y-road and the road faced is shaped like a pair of scissors; the house looks like sitting at the mouth of a pair of scissors.

Yao Jan Sha	Ya Ding Sha
	
The house is closer to a viaduct or an overpass; it looks like a long sword crosscutting the house.	The tall buildings are in back of the residence.
Dead End Alley	**Electricity- Related Infrastructures**
	
The house situating at the tip of an alley or lane where it ends right at the front the house.	A high-voltage tower or power transformer around the residence.
Haunted House	
	The unnatural dead events occur in or around the residence.

Appendix 2

Item	Type	Quantities	Percent (%)
Sex	Male	174	50%
	Female	174	50%
Age	21-30	103	29.59%
	31-40	96	27.58%
	41-50	80	22.98%
	51-60	58	16.66%
	61-70	10	2.87%
	71 up	1	0.28%
Educational Background	Elementary School	8	2.29%
	Junior High School	10	2.87%
	Senior High School	82	23.56%
	Bachelor	213	61.20%
	Master, Doctor	35	10.05%
Religion	None	92	26.43%
	Buddhism	114	32.75%
	Taoism	116	33.33%
	Catholicism	3	0.86%
	Christian	14	4.02%
	Others	9	2.58%
Jobs	Public Servant	93	26.72%
	Business	40	11.49%
	Industry	25	7.18%
	Services	146	41.95%
	Primary industrial sectors	2	0.57%
	None	13	3.73%
	Others	29	8.33%
Monthly Income (Ten thousand)	Under 2	48	13.79%
	2-4	142	40.80%
	4-6	123	35.34%
	6-8	20	5.74%
	8-10	11	3.16%
	10 up	4	1.14%

不動產批量評估實務
《以路線價評估法為中心》

一般財團法人　日本不動產研究所
Japan Real Estate Institute（ＪＲＥＩ）
公共部　七元　廣宣

２０１６年０９月２６日

目　　录

Ⅰ．不動産批量評估

《路線價評估法概要》

1. 土地利用趨勢

国土面積　約3,780万ha（＝約38万km²）　（2014年末）

森　林	約2,506万ha	國土總面積的約80%
農用地	約452万ha（比上年▲0.4%）	
住宅用地、工業用地等	約193万ha（比上年＋0.5%）	
道　　路	約138万ha	
水面・河川・水路	約134万ha	
原　　野	約35万ha	

※ 100ha = 1km²

（2016年5月「有關2015年度土地利用趨勢 2015年度土地基本政策摘要」國土交通省）

人口　約127百万人（2016年）

人口密度　約336人/km²

2. 公部門土地評估比較

區　分	地價公示 （國土交通省）	都道府縣地價調查 （都道府縣）	繼承稅評估 （國稅庁）	固定資產稅評估 （市町村）
評估機構	國土交通省土地鑒定委員會	都道府縣知事	國稅局長	市町村長
目　的	合理時價的形成	土地交易管制	繼承稅· 贈與稅課稅	固定資產稅課稅
土地類別 （土地種類）	建設用地、建設用地預留 （山林等）	建設用地、建設用地預留 （山林等）	建設用地、水田、旱田、山林、其他	建設用地、水田、旱田、山林、其他
價格 種類	正常價格 （地價公示法第2条第1項）	標準價格 （國土利用計劃法施行令 第9条第1項）	時價 （繼承稅法第22條）	合理之時價 （地方稅法第341條第5号）
價格 （調查） 時點	每年1月1日	每年7月1日	每年1月1日	基準年度前一年的1月1日 （每三年重估一次） ※根據地價變動趨勢，可以修改價格 (每年）。
建設用地 評估方法	針對每個標準地，要求2人以上的不動產評估師或不動產評估師補進行評估。評估結果經國土交通省設置之土地鑒定委員會審查、進行必要之調整后，判定正常價格并進行公示。	針對每個基準地要求1人以上的不動產評估師進行評估，評估結果經都道府縣知事審查，進行必要之調整后，判定標準價格。	根據公示價格、專家意見價格、買賣案例價格等，以公示價格為基準進行評定，以此評定價格為基礎確定路線價等。 以地價公示價格標準的80%为標準 （內部通知） ※2002年70%→現變更為80%	從買賣實例價格中得出的正常買賣價格為基礎，推算標準地之之合理時價，並以此為基礎计算出每宗土地的課稅基礎。 以地價公示價格的70%为標準 地方稅法第388條第1項委任立法 （大臣告示之評估基準） ※2004年重估年度開始導入
標準地 數量	2015年 23,380 点	2015年 21,731 点	2015年 （建設用地）約33万 点	2015年度重估時 （建設用地）約43万 点

土地基本法 第十六条（公部門土地評估之合理化等）
為了有助于合理地價的形成以及課稅之合理化，國家在公示土地正常價格的同時，
应致力於公部門土地評估與其他價格的相互均衡與合理化。

3. 固定資產稅及都市計劃稅概要

區　分	固　定　資　產　稅	都　市　計　劃　稅
課稅主體	全市町村……1,719個 （東京都23區內是東京都課稅）	有都市計劃区域的市町村 （課稅市町村數量651個）
課稅客體	土地、房屋及折舊資產 （土地：1億7,956萬筆、房屋：5,859萬棟）	原則上為市街化區域內的土地及房屋 （土地：4,210萬筆、房屋：2,992萬棟）
義務納稅人	土地、房屋及折舊資產的所有權人 （土地：4,059萬人、房屋：4,075萬人、 折舊資產：425萬人）	土地、房屋及折舊資產的所有權人 （土地：2,162萬人、房屋：2,646萬人）
課稅標準	價格（合理時價） ※土地及房屋每三年進行一次重估 （下一次的重估為2018年）	同左
稅　　率	標準稅率　1.4%	制限稅率　0.3%
稅　　收	8兆6,752億日幣（2014年度結算金額）	1兆2,439億日幣（2014年度結算金額）

※　都市計劃稅是為了推進都市計劃而征收的稅種

4. 建設用地評估方法摘要

市街地建設用地評估方法

- 主要適用於已形成市街地形态的地區
  （有必要進行比較嚴密的計算）
- 所謂的路線價方式
- 對各筆土地，以路線價為基礎并參考《画地计算法》附設評點數，用該評點數乘以每評點單價，算出各筆土地的評估額。

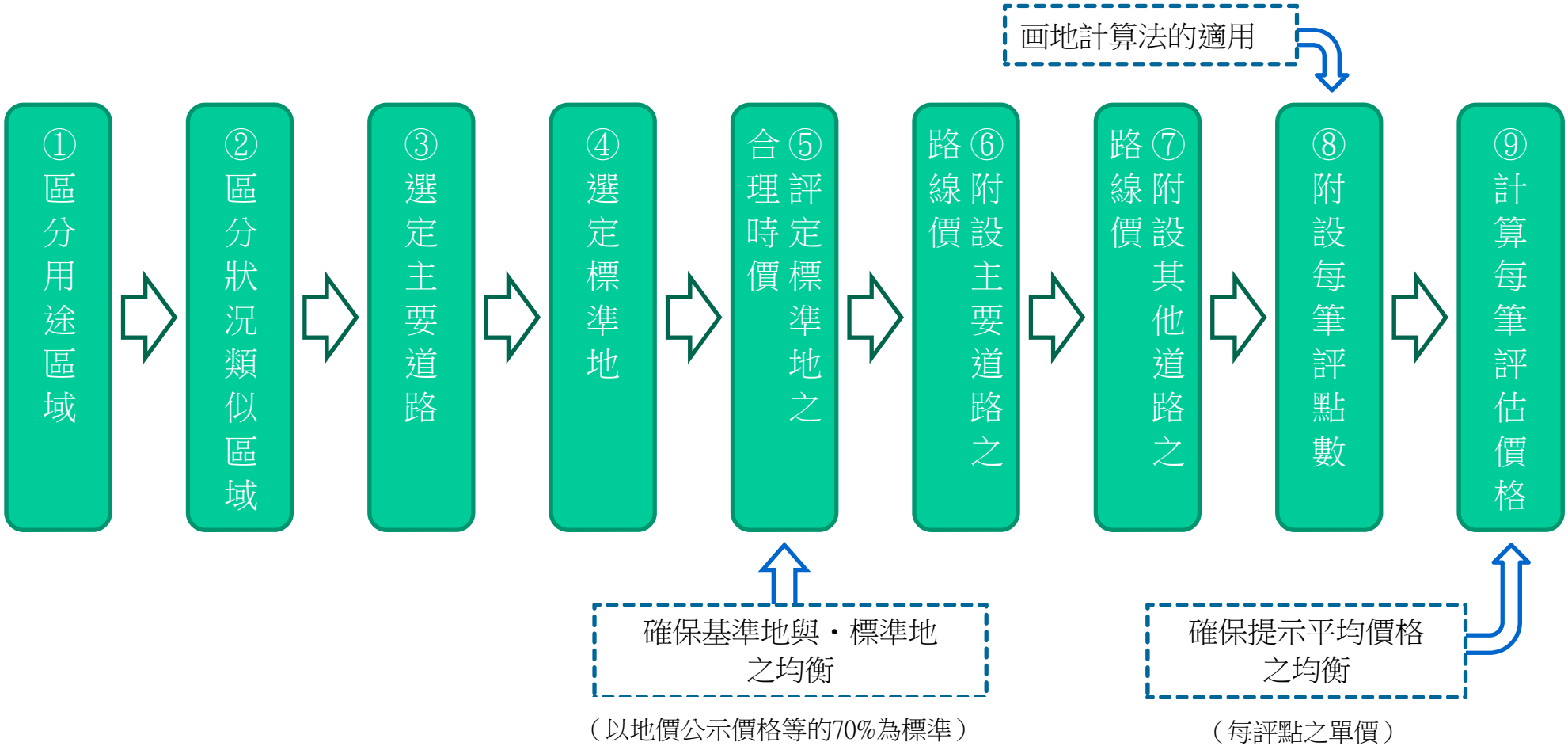
其他建設用地評估方法

- 主要適用於還沒有形成市街地形態的地區
  （沒有必要進行類似左側的嚴密計算）
- 對市町村內的土地跟以下方面區分類似地區
  ①建設用地鄰接之道路狀況
  ②公共設施的鄰近狀況
  ③房屋的密集度及其他建設用地的利用狀況
- 根據每個地區選定的標準地的評點數，參考《建設用地之比准表》，推算每筆土地的評點數。

※根據建設用地狀況，有必要時“没有形成市街地形態的地區的建設用地”也可以適用於「市街地建設用地評估方法」（《固定資產評估標準》 第 1 章第 3 節）

5. 市街地建設用地評估方法

主要適用於已形成市街地形态的地區



6. 區分用途區域、區分狀況類似區域

區分用途區域

區分狀況類似區域時的著眼點

價格形成因素

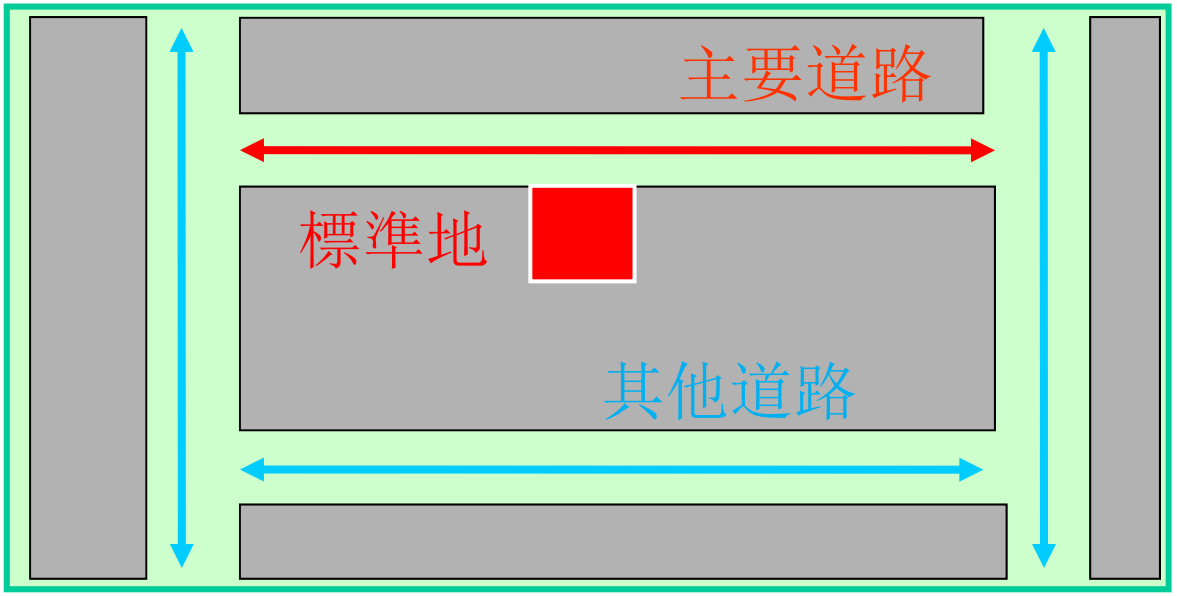
	商業區域	住宅區域	工業區域	觀光區域
	繁華街 高度商業區域I 高度商業區域II 普通商業區域	高級住宅區域 普通住宅區域 並用型住宅區域	大型工廠區域 中小工廠區域 家庭型工業區域	溫泉街區域 門前商業街區域 名勝區域等
道路條件	幅度、鋪裝、人行道、系統及連續性	幅度、鋪裝、人行道、系統及連續性	幅度、鋪裝、人行道、系統及連續性	
交通・鄰近條件	最近車站・交通管制狀態	與最近車站的距離、與最近商業街的距離、與學校・醫院等的距離	與主要交通設施的鄰近距離、靠岸設施	
環境條件	商業形態密度、位置形態（商業街、辦公區等）、店鋪等規模、客流量	日照、地盤、上・下水、城市煤氣、危險設施、有無厭惡設施	工業用水、工業排水	
行政條件	容積率、高度限制、其他管制	公法上的管制等	援助與管制	

7. 選定主要道路、選定標準地

①選定主要道路

一.狀況類似區域內，價格因素及道路狀況等具有標準性，可成為建設用地評估指標的道路

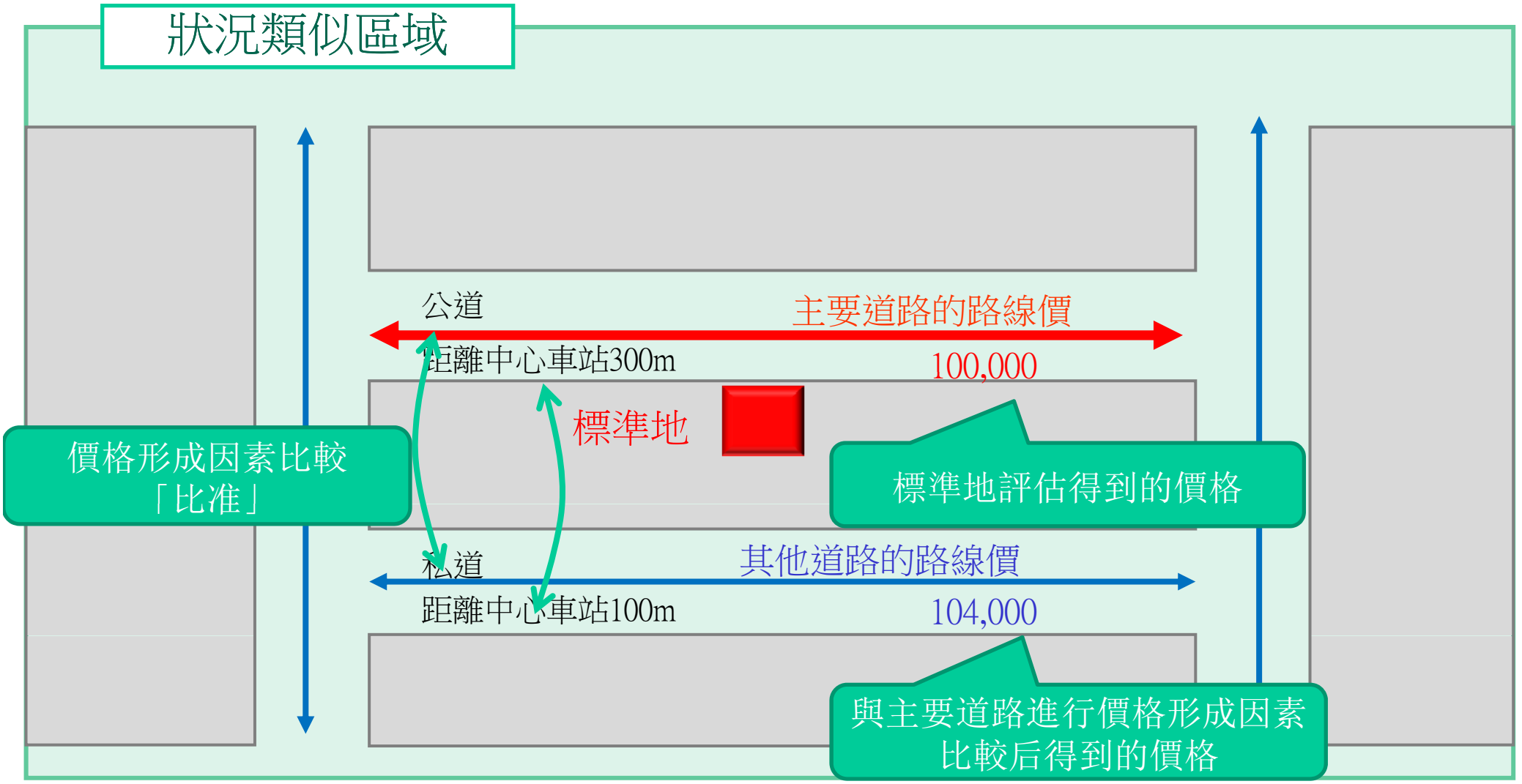
二.地價公示調查地（標準地）或都道府縣地價調查地（基準地）的所在道路



②選定標準地

與主要道路相鄰接，進深、寬度、形狀等土地條件在該當地區有標準性之建設用地

8. 依據比准表決定路線價格



9. 比准表（道路寬度）

中心車站前的
高度商業區

格差率（%）

高度商業區
普通住宅區

30
20
10
0
-10
-20
-30
-40

0　1.8　4　8　12　16　20　50

宽度（m）

普通住宅區

	商業	影響力	住宅
增值	大樓建築的可能性大	>	大樓建築的可能性大
增值	通行便利性增大	>	通行便利性增大
增值	交通量增加帶來的收益擴大	>	—
減價	交通量增加帶來的噪音・震動	<	交通量增加帶來的噪音・震動

10. 路線價的評定例

實際因素
項目數為
10～20左右

	主要道路	其他道路	
道　路　種　類	公道	私道	-3
與中心車站的距離	300m	100m	+7
綜　合　差　別　率		104	
路　線　價	100,000	104,000	

97/100

107/100

97/100＊107/100

11. 每筆評點数的附設

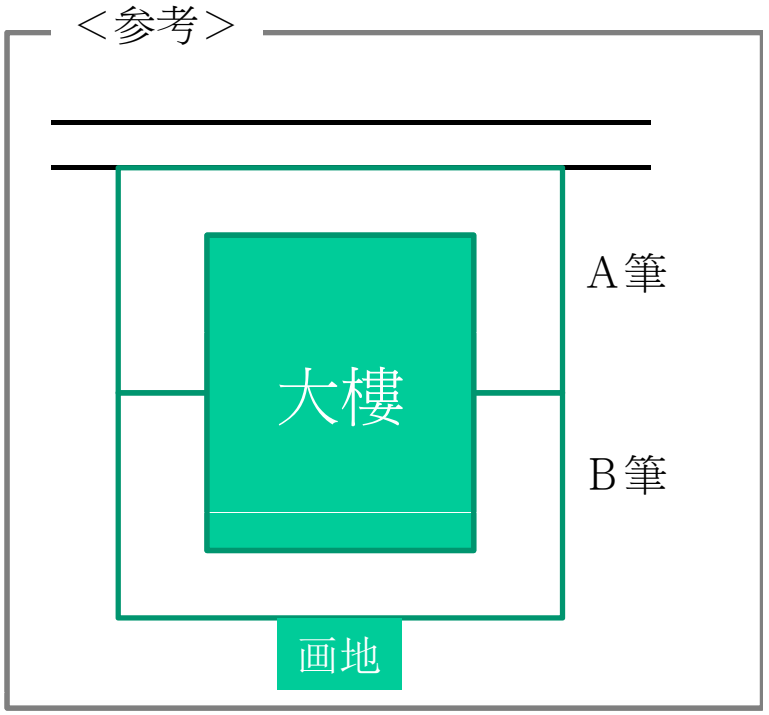
①画地（土地）認定

基本

一画（筆）地应为在*土地課税台賬登記的一筆建設用地。

例外

一筆建設用地或相鄰之兩筆以上的建設用地，从其形狀、利用狀況等分析，可以認定為一體的土地，或者認為有必要整理為一體的土地時，可將構成的各部分土地視為一筆土地。

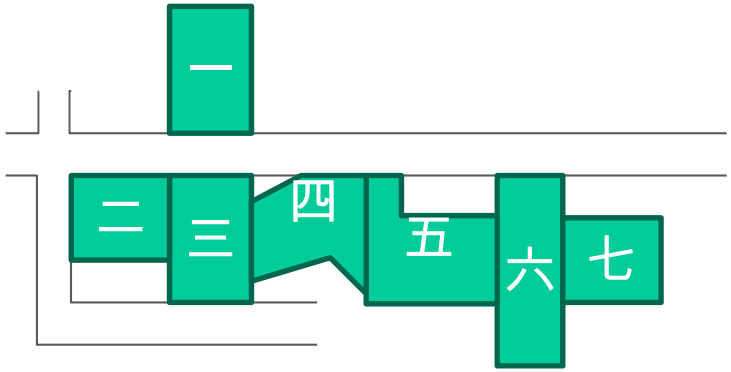


- 「土地課税台賬」
  為了進行固定資產税（土地）征收工作，各市町村整理的數據庫。
  有關房屋的為「房屋課税台賬」數據庫。

12. 画地計算法附表

一	進深價格修正	進深長短的補正（進深和面宽的合理關係為前提）
二	側方路線影響之加分	可利用進口增加的補正（適用於拐角地・準拐角地）
三	兩方路線影響之加分	可利用進口增加的補正（適用於正面和後方有道路的土地）
四	不平整地修正	形狀不好到來的利用上的限制之修正
五	進口狹窄修正	進口狹窄帶來的利用上的限制之修正
六	进進深長度修正	進深長短之修正（前提為进深和進口存在不合理關係）
七	崖地修正	類似崖地等利用限制上的修正
八	道路開通修正	適用於無道路地，考慮到通道開設費用等的修正

< 參考 >



上述差別率為全國統一數值。

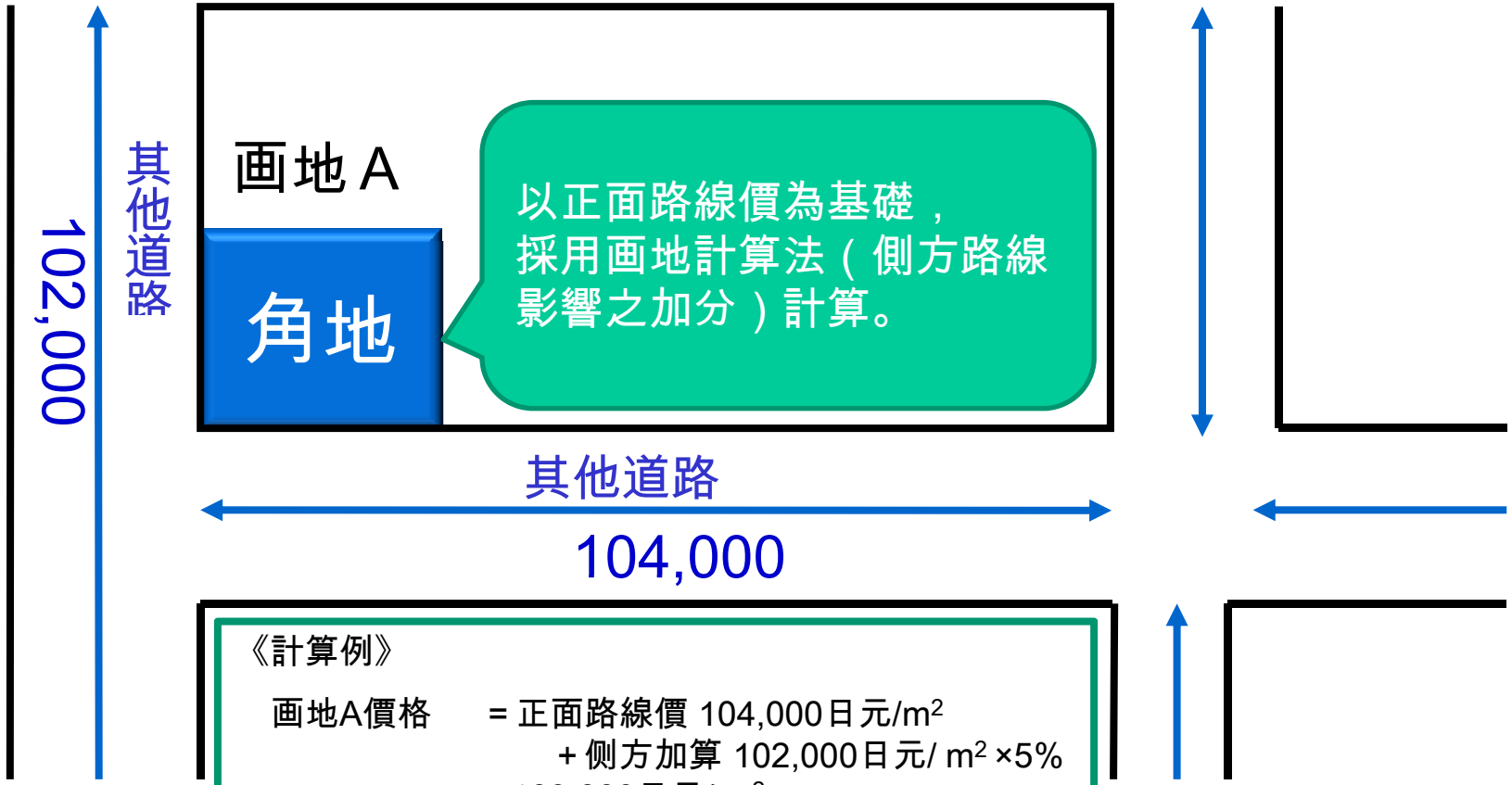
↓

市町村長為了確保評估的均衡，根據建設用地狀況認為有必要時，可以在這些附表上添加**「所需的修正」**。

↓

各市町村也可以相應調整**上述之外的價格形成因素**之影響。

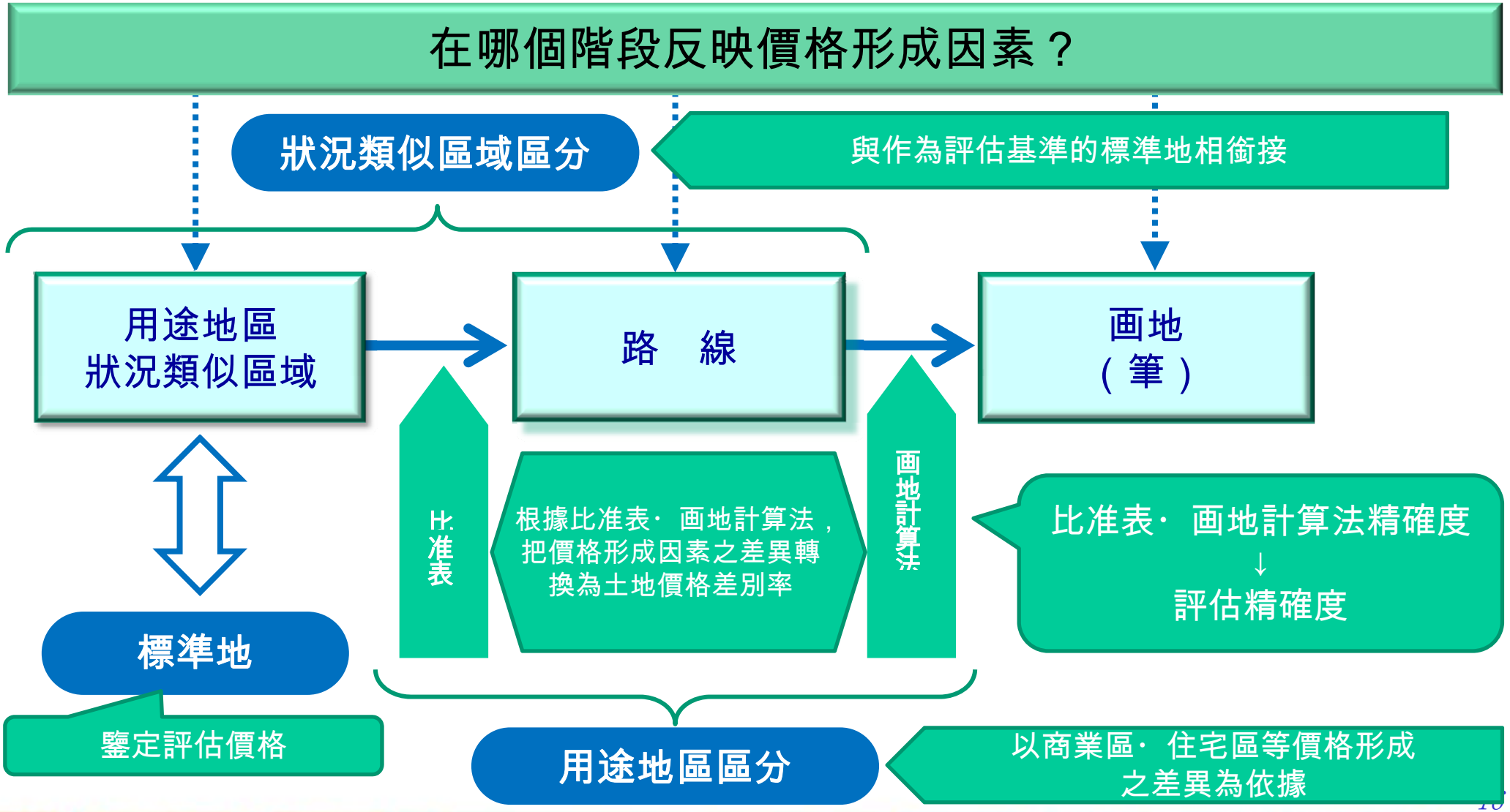
13. 各画地價格
依據画地計算法的計算例



《計算例》

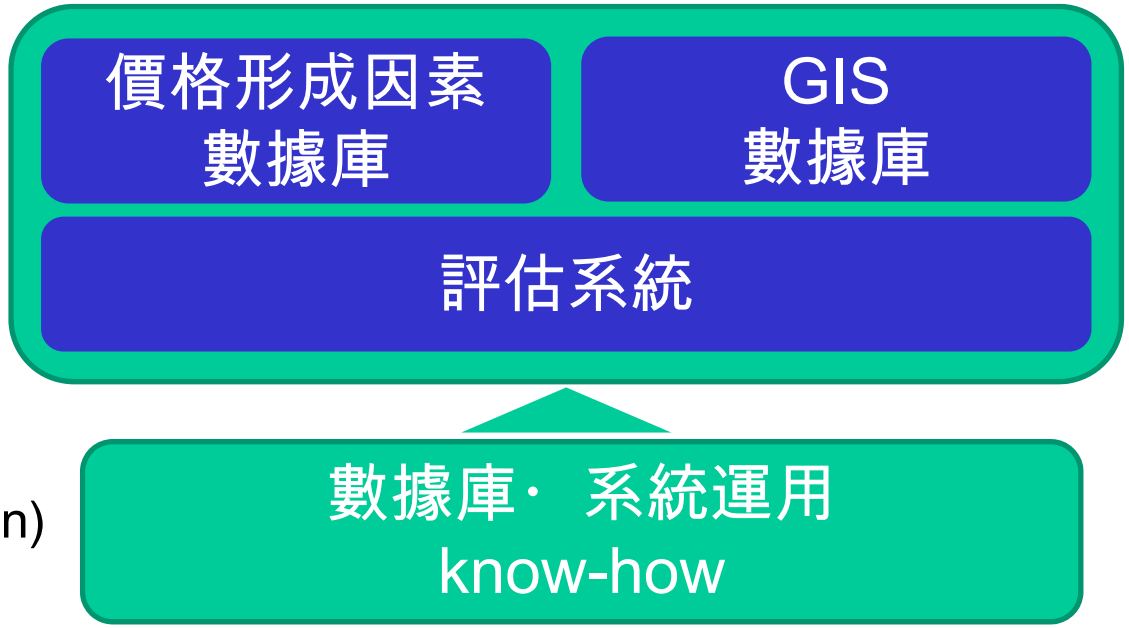
画地A價格　= 正面路線價 104,000日元/m^2
+ 側方加算 102,000日元/ m^2 ×5%
≒ 109,000日元/ m^2

14. 路線價式評估法結構



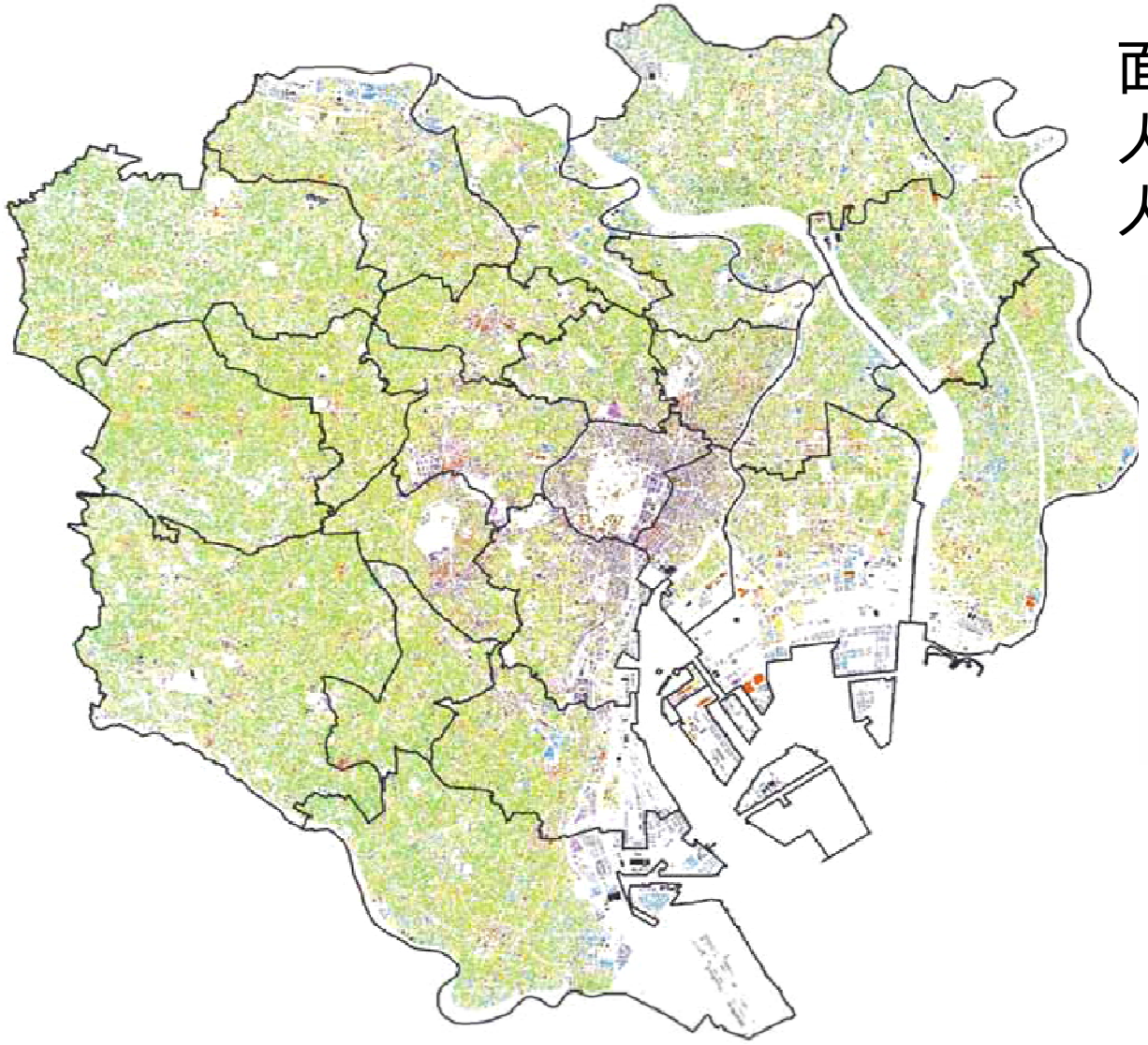
15. 路線價式評估法之技術支撐

1. 價格形成因素數據庫
   a. 標準地數據庫
   b. 路線因素數據庫
   c. 画地（土地）因素數據庫
2. GIS數據庫
   a. 標準地位置圖 (point)
   b. 路線位置圖 (polyline)
   c. 画地（土地）位置圖 (polygon)
3. 評估系統
   a. 路線價計算系統　……比較路線因素之《比准表》適用
   b. 画地計算系統　……比較画地因素的《画地計算法》適用
4. 數據庫・評估系統之活用 know-how
   《確切的比准表・画地計算法之設計和差別率之判定》
   a. 區域特性之區域間差異　……正確把握利用狀況
   b. 區域特性之週期性變動　……正确把握時間推移之變動
   c. 市場價格之變動　……正确把握價格形成趨勢



Ⅱ．日本不動產研究所的
批量評估實績

1. 東京都（市区）概況

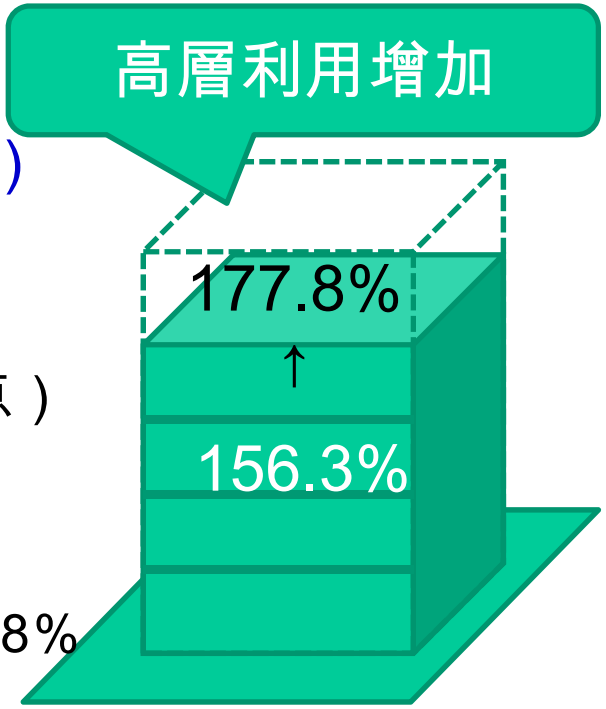


面積　628.54km²
人口　9,256千人
人口密度 14,726人/km²

- 官公厅设施
- 教育文化设施
- 厚生医疗设施
- 供给处理设施
- 办公建筑
- 专用商业设施
- 商住两用建筑
- 住宿・游览设施
- 体育・兴业设施
- 独立住宅
- 复合型住宅
- 专用工厂
- 居住两用工厂
- 仓储运输相关设施
- 农林渔业设施
- 临时建筑
- 其他

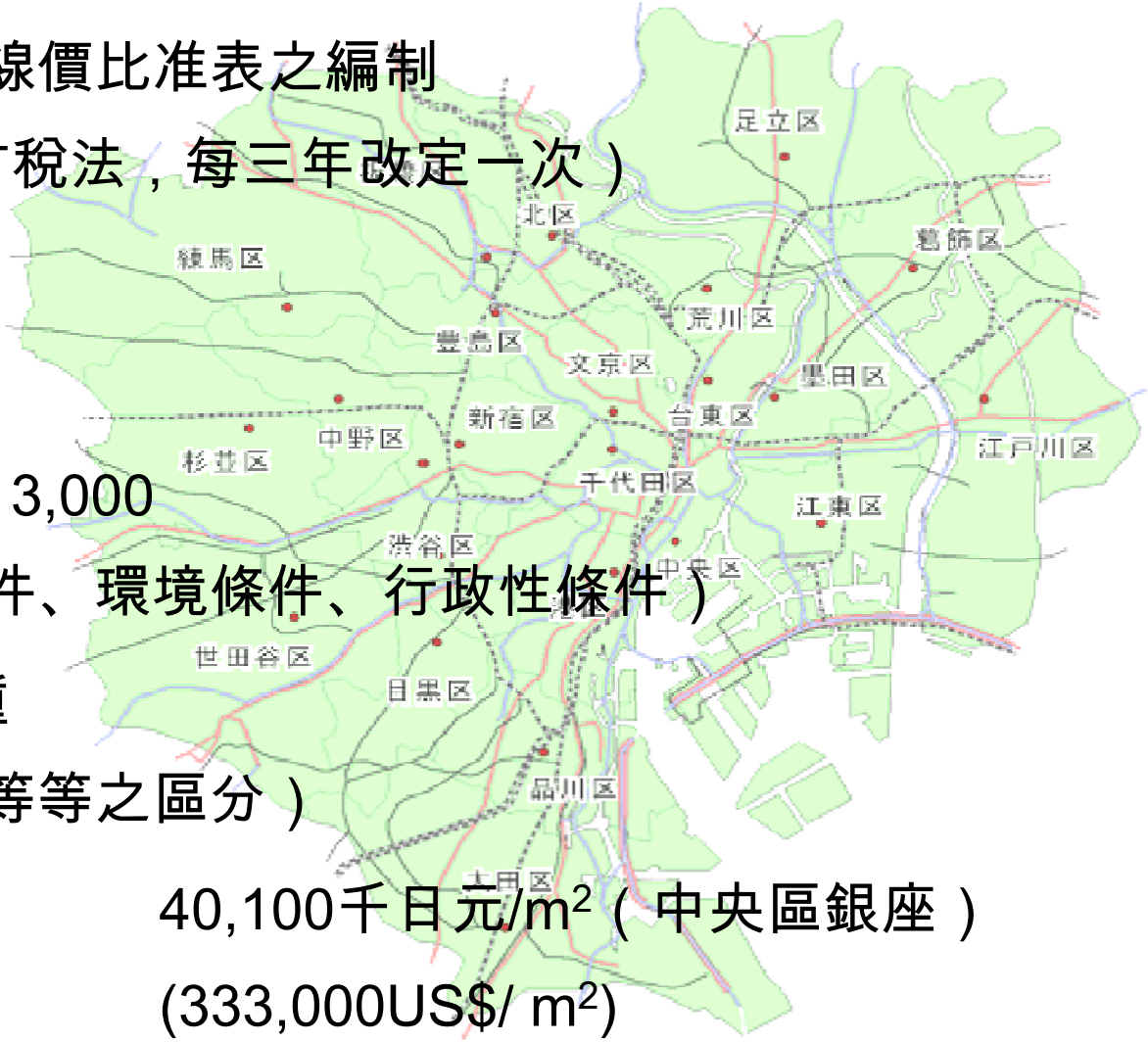
2. 東京都（市区）之土地利用

1. 市区土地利用面積（2011年調查）
   a. 建設用地、公園、道路等呈現增加趨勢
   b. 農用地、水面等呈減少趨勢
      - 建設用地　36,397ha（增加500ha）
      - 公園等　3,989ha（增加43ha）
      - 農用地　645ha（減少61ha）
2. 各建築用途的建設用地之利用比率（2011年調查）
   a. 住宅大樓用地比率上升
   b. 工廠專用地比率下降
      - 住宅大樓用地比率：28.2%（上升1.1个百分点）
      - 工廠專用地比率：2.8%（下降0.4个百分点）
3. 容積率（土地面積相對應的總建築面積）增加
   - 市區整體：2001年 156.3% → 2016年 177.8%



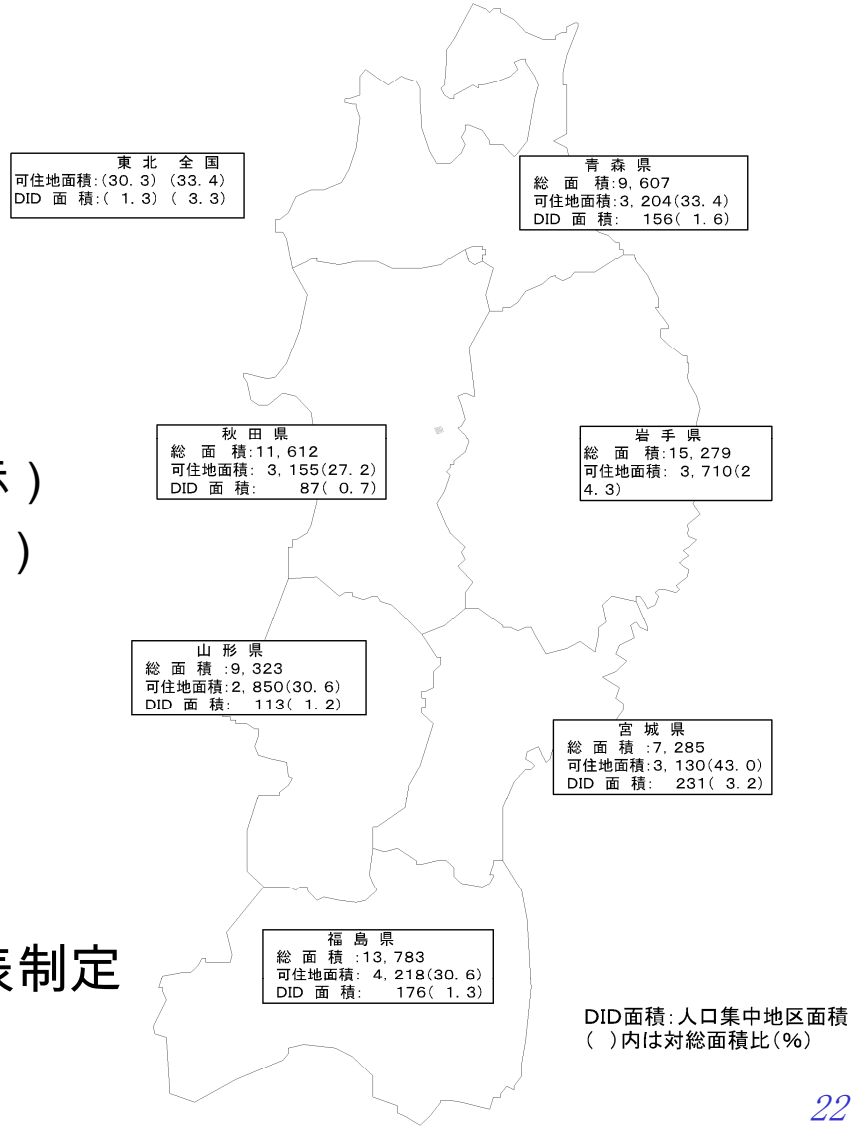
3. 東京都（市区）路線價評估法之適用

- 固定資產稅評估為目的的路線價比准表之編制
  調查期間……3年（依據地方稅法，每三年改定一次）
- 標準地　　約12,000 点
- 路線　　約277,000 路線
- 價格形成因素之比較項目 約 3,000
  （道路條件、交通･鄰近條件、環境條件、行政性條件）
- 比准項目之組合　　約 400種
  （高度商業區、普通住宅區等等之區分）
- 土地價格（最高價格地點）　　40,100千日元/m^2（中央區銀座）
  （2016年地價公示）　　(333,000US$/ m^2)



4. 東北地區太平洋沿線地區的2012年評估工作

1. 東北地區概況
   - a. 面積　66,951km^2
   - b. 人口　8,927千人
     人口密度　133人/km^2
   - c. 市町村数　227市町村（6縣）
   - d. 土地價格（最高價格地點、2016年地價公示）
     2,480千日元/m^2（宮城縣仙台市青葉區）
     (21,000US$ /m^2)
2. 東日本大地震概況
   - a. 地震發生　2011.3.11
   - b. 地震海嘯之浸水範圍　約561km^2
3. 編入震災對價格形成因素之影響的比准表制定
   調查期間……4个月



DID面積:人口集中地区面積
( )内は対総面積比(%)

5.東北地區太平洋沿線地區的2012年評估工作

1. 價格形成因素比較用比准表之討論

a. 海嘯浸水受害
b. 地基下沉及液態化
c. 社會基礎設施之受害
…… 道路、鐵路、機場、港灣、河川、海岸
d. 生命線之受害
…… 電力、煤氣、水道

地震減價率 ＋ 個別修正

2. 對象區域之適用

a. 整理價格形成因素（減價因素）
b. 現場調查
c. 根據受害影響・種類編制評估方針
d. 編制各市町村・區域之比准表
e. 編制震災減價率表

價格形成要因			最大減価率 住宅地区	
				計
復旧減価	市町村ごとに判定	鉄道	－5	−10
		高速道路	－1	
		港湾機能	－1	
		空港	－1	
		供給処理施設	－2	
	市町村内の地域ごとに判定	街路条件	－7	−24
		バス	－2	
		地盤	－5	
		環境等	－5	
		行政的条件	－5	
復興減価	市町村ごとに判定	市場の需給動向、スティグマ等	−10	−10
合計（相乗積）			−36	

謝謝！

2016/9/26 參訪日本不動產研究所擬請教的問題：

以下回答，除５．以外，均為［建設用地］之內容．

1. 基於不同估價目的(固定資產税、遺產税…)有不同的標準地、路線價(圖)及評價基準嗎?其間的關係如何?
   答：固定資產税為市町村税，評估基準是根據地方税法 - 總務省公佈的［固定資產評價基準］。
   遺產税是國税，評估基準是國税庁公佈的［財產評價基本通達］。

2. 市場上以房地結合的交易居多、少有土地交易，何不直接推估房地價格以課徵固定資產税,而費心去拆算土地的價格?鑑定士如何由房地價格中拆分土地價格?
   答：由於在日本土地和房屋分別看做個體不動產，持有人也有可能不是同一個人，所以為了對土地和房屋各自的所有人征税，對土地和房屋分別進行評估。
   不動產估價師從土地房屋一體的交易價格中推算土地價格時，一般使用成本法求取房屋積算價格后 ,將其從交易價格中扣除 ,從而推算出土地價格。

3. 評價基準法是估價技術的主要規範嗎？地價公示法中對估價技術有無特別規定?兩者的關係如何?
   答：與問題１．相關。
   日本不動產估價師以［不動產鑒定評價基準］為準則進行評估工作。
   ［地價公示法］由國土交通省負責，與［固定資產評估基準］和［財產評估基本通達］之規定有所不同。
   評估工作一般以不動產鑒定評價基準為準則進行，但會以評估目的（地價公示、固定資產税或遺產税）不同，分別根據相關規範進行例外調整。

4. 中央的公示地價和地方的標準地查作業如何銜接?鑑定士辦理公示地價查估和標準地查估，所使用的電腦作業系統及作業流程如何?
   答：土地基本法體現了公部門估價之均衡化，固定資產税評估額以公示地價的７０％為標準（遺產税評估額為８０％左右）。
   另外［不動產鑒定評價基準］規定，不動產估價師在進行評估工作時，

須考慮公示地價與固定資產稅標準宅地評估額之間的均衡性。

公示地價、標準宅地之鑒定評估時所用的系統并非統一系統，不動產估價師可以從市場零售的軟件中選擇購買。軟件開發公司由於需要相互交換交易案例，所以各公司的軟件之間有互換性，但並非統一之系統。

5. 農業用地或特殊分區土地評估方式為何？應用「倍率法」的時機及作業方式?
答：農地、山林及原野沒有公示地價，也不是固定資產稅評估之對象，故各市町村情況不盡相同。[固定資產評價基準]中雖舉例以買賣實例為基礎的評估方法，但買賣實例的收集難度較大是一大難題。實際操作中如果有課稅用的既存評估價格，有時會以此評估價格為基礎進行推算。

[倍率法] 是適用於遺產稅的財產評估之方法。國稅局長根據每個地區的不同情況，決定各地區的倍率值，用該倍率值乘以該當標的土地的固定資產稅評估額得出遺產稅的評估額。

對於建設用地，國稅局長根據該當建設用地所在地區的地價情況相同地區之建設用地的買賣實例價格、公示價格、不動產估價師所估的不動產評估額及專家意見價格等決定倍率值，再用該倍率值乘以該當建設用地的固定資產稅評估額得出遺產稅的評估額。

6. 公示地價、標準地的價格跟土地市價、不動產市價(房地成交價格)的關係如何?
答：與問題４．相關。

公示地價和固定資產稅的標準宅地價格是以不動產估價師評估得出的[正常價格] 為基礎。

土地的市價和不動產的市價(房地成交價格)，由於每個不動產交易的當事人的個別因素均會反映到交易價格之中 ,因此市價和正常價格不一定一致。

7. 公示地價、標準地估價報告書等查估報告書(作業書表)是否有制式規定?哪裡可以查到?估價報告書是否對外公開?
答：公示地價的估價報告書可以通過國土交通省網站之 [土地総合情報ライブラリー] 閱覽。
http://tochi.mlit.go.jp/kakaku/chikakouji-kakaku （地價公示制度的概要、日文）
http://www.land.mlit.go.jp/landPrice/AriaServlet?MOD=2&TYP=0 （地價公

示各地點的情報、日文）

固定資產稅的標準宅地之估價報告書沒有在網上公開，但可以根據情報公開制度向市町村的相關窗口要求提供閱覽。

8. 地價工作分合會的組成?如何協調價格? 公示價格之公正性有無遭受民眾之質疑？

答：地價公示制度根據 [地價公示調查組織規程], 由國土交通省　土地鑒定委員會募集和選任鑒定評價員。

[分科會] 是土地鑒定委員會為了促進評價員之間的聯絡、調整，以確保地價公示工作的順利進行，根據標準地的數量和用途區分，在都道府縣區域或區分為 2 個以上的地區分別設置分科會。通過分科會定期舉行評價員之間的情報和意見交換會議，以保證標準地價格的均衡。

地價公示是根據地價公示法的規定，由土地鑒定委員會每年公佈一次標準地的正常價格，以作為一般土地的交易價格指標、或公共事業用地收購價格算定之標準、或國土利用計劃法規定的土地交易規制中土地價格算定之標準，因此地價公示指導自身不會遭受民眾之質疑。

１９９４年開始，針對固定資產稅評估額施行參考地價公示的７０％為標準之制度，但由於每塊土地的情況不同，課稅標準額的評估額適用比率也不同，導致課稅標準額和稅額上升，從而遭受民眾訴訟的情況很多。目前公示地價動向和固定資產稅額動向不同時，也會有所有人向市町村提出質疑。

9. 於交易稀少或真實交易價格難以掌握之地區如何運用買賣實例比較法？

答：在建設用地地區，通過擴大交易案例收集範圍或收集過往的交易案例，加上憑藉估價師對該當地區直觀上的價格標準，最終通過和廣範圍區域的價格動向相考量，從而算出價格。

10. 市場上的成交案例如此之多, 為何不直接運用電腦進行大量推估?而間接透過基準地等進行各宗土地的推估?

答：與問題４．相關。

日本沒有公開不動產交易價格信息之制度，目前價格收集主要依賴對所有人進行的問卷調查，或參考賣主開價。

另外，很多經濟學論文中提出了通過回歸分析的土地價格推算模型，但統計推算模型無法避免每個地點的評估額之誤差。而且現實中的交易價格未

必都是以合理決策為前提進行的，所以通過統計推算需要龐大的虛擬變量支撐。

而從納稅人角度來看，上述 [誤差] 是不易被忽視的。

因此，為了更準確的算定每個地點的評估額，不能通過模型公式，不動產估價師進行的評估工作是不可缺少的。

11. 聽說 貴所最近完成比準表的修訂，請問編製比準表的原則如何?

答：弊所為眾多市町村提供固定資產稅評估用的路線價比准表、各土地之補正率表的編制服務。

在編制比准表時，雖也會使用問題１０．提到的統計分析，但很少出現從零開始分析土地價格的情況，大多都是參考全國各地的過往估價實績，採用由當地分公司的不動產估價師算定的格差率方式為主。

並且如果評估額和稅額和之前的價格出現大幅度變化時，納稅人會要提出質疑，要求說明原因和根據。因此在編制固定資產稅的比准表時，會注意與之前的評估額的變動。

附錄7

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