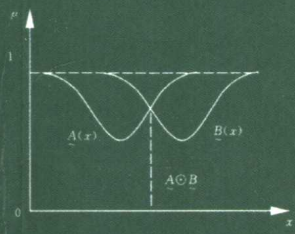


Development on the Real Estate Appraisal Approaches

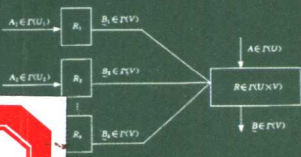
房地产估价方法的拓展

施建刚 著

$$\sigma_0(A, B) = (\underline{A} \cdot \underline{B}) \wedge (\overline{A} \odot \overline{B})^c$$

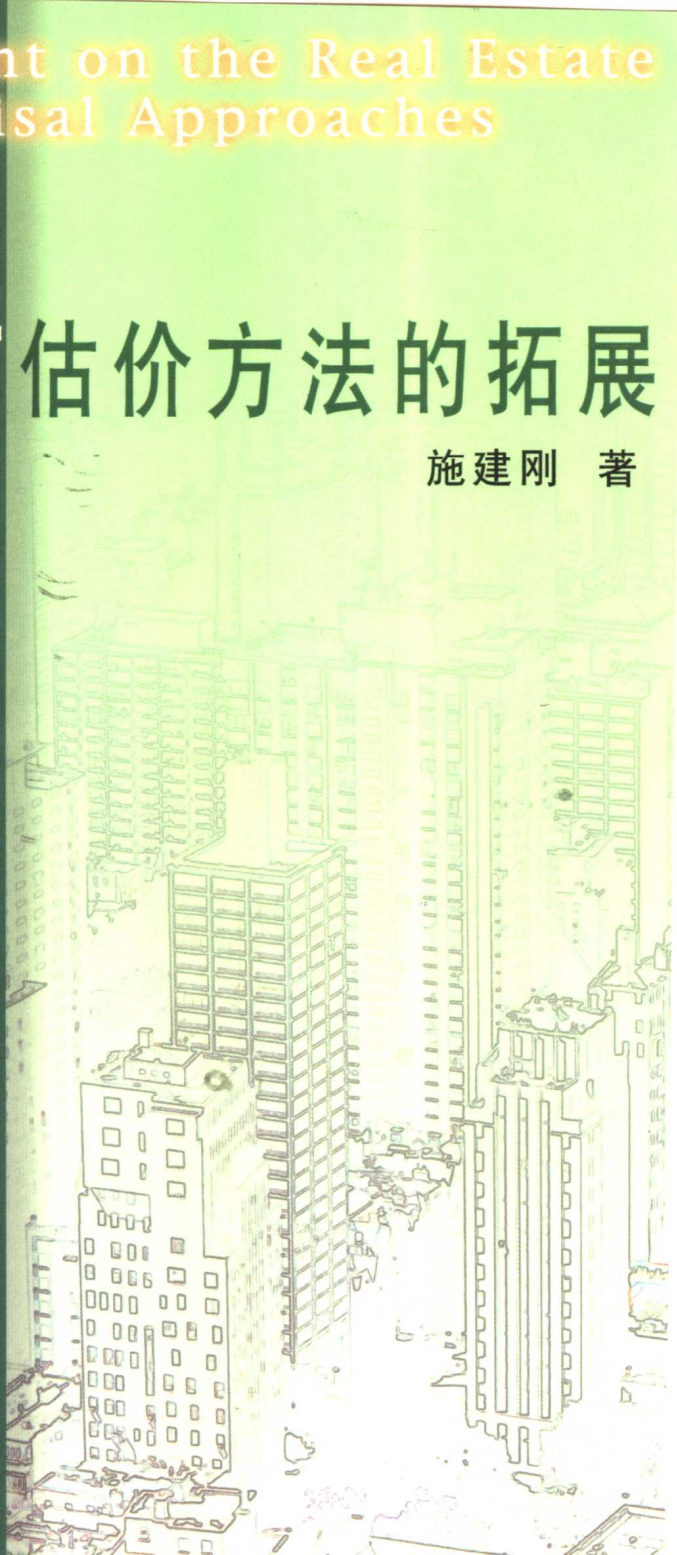


$$E_{i-1}^* = E_i^* + \sigma_i(E_i - E_i^*)$$



$$= \lim_{n \rightarrow \infty} \frac{x_0 \in A^* \text{ 的次数}}{n}$$

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前 言

随着我国房地产市场的不断发展与壮大,房地产交易案例的急剧增加,房地产估价在人们的生活、工作中已成为不可缺少的一项专业性、技术性工作,并且国家实行了房地产估价制度。如何运用合适的估价方法,哪种估价方法所得结果更具可靠性,是否可用其他的估价方法去拓展已有的传统估价方法等等,已摆在各估价机构(估价师)的面前。中国房地产估价师协会对这些问题也非常重视,多次希望对房地产估价方法作深层次研究。本书在这样的思想指导下,就房地产估价方法作出较为全面深入的研究和探讨。全书内容丰富完整,分析逻辑严密,采用多学科融合的分析研究手段,特别是经济学、数学、土地科学、系统工程学等的相互融合,并强调理论与实务的紧密结合。本书所研究的内容,对开拓房地产估价方法、提高房地产估价精度,具有理论意义和推广应用价值,并将产生积极的社会效益和经济效益。

本书首先对中外房地产估价发展状况进行了综述,说明我国大陆和香港房地产估价方法受英国体系的影响较大,注重经验与艺术的结合,并提出了比较法作为各国(地区)房地产估价的首选方法。

通过对房地产估价的理论与方法的深入研究,揭示了各种估价方法的实质与难点,以及存在的主要问题和解决设想。同时分析了房地产估价技术路线、方法、对象、目的的相互关系的程度。研究表明,公开市场价值标准与各种估价方法以及估价方法的“替代”原理的关系在实质上是一致的,并首次提出了估价方法的“归一”处理,从而,清楚地认识到几种主要的房地产估价方法的“龙

头”是比较法。这些观点将对房地产估价方法的改进和发展起到建设性作用。

本书重点研究了与房地产估价相关的模糊数学理论和相关权重确定方法,提出了与房地产估价密切相关的隶属函数、贴近度、择近原则、各种权重的确定方法,以及模糊综合评判决策、快速递减加权式的应用方法,并结合“上海海关大楼模糊数学估价案例”加以论述。而这些理论的应用,正是房地产比较法估价时选取可比案例以及权重确定的一个科学的理论依据,它将解决以往可比案例及权重选取的主观随意性问题。这在国内外相关领域尚未发现类似的、系统的学术论著,更无具体案例可查。这些研究成果,已在有关专家中宣讲,得到了充分的肯定。

本书还对房地产估价的误差进行了分析研究,首次得出了“传统比较法是一种精度较高的估价方法,建议采用;而模糊数学法估价的精度则更高,建议对价值量大或特殊房地产的估价采用此方法”等有益的结论。

随后,本书阐述了建立房地产估价信息系统的整体构想,包括系统结构原理、各模块的功能及系统的主要特点,并重点论证模糊检索分类的数学模型。书中的思路已在一些房地产估价有限公司开发的“房地产估价信息系统”中应用,效果较好。相信,系统的研究与实施,对房地产估价,尤其是模糊比较法估价产生重要的影响,并对房地产估价方法和手段的拓展具有重要的现实意义。

本书最后对全书所研究的内容进行了总结,阐述了全书所解决的主要问题和得出的研究结论。提出了在房地产估价方法中有待进一步研究的主要内容,涉及到估价方法的难点、估价方法的“归一”处理理论的完善,模糊数学的贴近度改进、权重确定的完善以及估价信息系统的研发等内容。笔者将对这些内容作进一步的深入研究,以完善房地产估价方法,并与相关机构合作,尽快建立

完整的房地产估价信息系统。相信,上述问题的解决,将对我国房地产估价的发展产生极其重要的作用,并带来可观的社会效益和经济效益。

同济大学经济与管理学院白庆华教授对本书的研究路线和研究方案提出了许多指导性建议,在此向他致以最真挚的感谢。

在本书的选题及完稿后的预审中,华东师范大学东方房地产学院院长张永岳教授、同济大学经济与管理学院院长尤建新教授以及诸大建教授、赵财福教授等提出了很好的建议并给予帮助;在本书的研究过程中,得到了中国房地产估价师学会、上海房地产估价师协会的指点和合作;在本书的写作过程中,也得到了经济与管理学院林知炎教授、诸大建教授、何芳副教授、楼江副教授、腾桦老师以及上海城市房地产估价有限公司袁东华董事长、许军总经理和香港中华房地产建设研究发展基金会的大力支持,在此一并表示诚挚的谢意。

在此需要特别说明的是,在本书的写作过程中,主要参阅和引用了谢季坚、刘承平的《模糊数学方法及其应用(第2版)》、薛景歧等的《宗地地价的模糊综合评价》;中国房地产及住宅研究会房地产评估专业委员会主办的《房地产评估》(1996~2002)各期;廖俊平、陆克华的《房地产估价案例与分析》;柴强的《房地产估价理论与方法》;张协奎的《房地产估价方法》;张协奎等的《慈利县城基准地价评估》等,同时在相关章节中加以注记,在此特向这些作者表示衷心的感谢。

本书可供高等学校工程管理(房地产经营与管理专业方向)、土地资源管理及相关专业高年级本科生、研究生教学和科研中使用;也可供各类房地产估价机构以及相关高级研修班参考应用。

施建刚

2002年深秋于同济园

Development on the Real Estate Appraisal Approaches

Shi Jiangan

Abstract

With the rapid development of the real estate market in China, the cases concerning real estate are now on the rise. Therefore real estate appraisal work has been regarded as the indispensable professional and technical work in real estate operation. Our country has now stipulated the system of real estate appraisal. Problems in face of all the appraisal institutions and appraisers include the way of application of appropriate appraisal approach, the reliability of appraisal approach responsible for its result as well as the possibility of applying other new approaches to develop the present traditional approaches etc. China Institute of Real Estate Appraisers has attached the great importance to the above-mentioned problems and in many circumstances expressed its concern over the further research to the approach of real estate appraisal. In view of this, the paper tends to perform a profound study and analysis of the real estate appraisal approach. On the one hand, the paper is well written with rich and

complete content, logical analysis, adopting the analytical method of multi-subjects including such important ones as the amalgamation of economics, mathematics, land science and systems engineering plus emphasizing the combination of theory and practice. On the other hand, the paper is significant in theory and has the value of diffusion and application in terms of the development of real estate appraisal approach, improvement of real estate appraisal accuracy and will bring about active social and economic benefits.

As far as the layout of the paper is concerned, the paper first comprehensively expounds the development of present real estate appraisal in China (Mainland and Hong Kong SAR) and from abroad, emphasizing that the appraisal approach used in the Mainland and Hong Kong SAR has been greatly influenced by British appraisal system, with the combination between experience and arts. On the basis of this the paper suggests that the comparison approach be the first choice in the field of real estate appraisal in all the countries and regions in terms of real estate appraisal.

Through study of the real estate appraisal theory and approach, the essence and the difficulties of appraisal approaches and the main existing problems as well as their idea of solution have been revealed. Meanwhile analysis is engaged in the interrelationships of technical route, approach, subject, and purpose in terms of real estate appraisal. The study shows that it is totally identical in essence between open market value standard and various appraisal approaches as well as the "substitution" of the ap-

praisal approach. The paper also initially puts forward the way of "All in one" in the handling of appraisal approach. Therefore it becomes clear that the best approach will contribute to comparison approach among the main approaches of real estate appraisal. These new points of view will, in the future, play a constructive role for the improvement and development of the real estate appraisal approach.

The paper mainly studies fuzzy mathematics theory and weighting determination method in relation to real estate appraisal, advancing the subordinate function, degree of approaching, principle of choosing the nearest, the methods of weighting determination, fuzzy comprehensive judgment decision as well as the application method of rapid diminishing weighting, plus "The Fuzzy Mathematics Appraisal Case of Shanghai Customs House" for discussion. Obviously the application of these approaches theoretically and scientifically support the comparison approach of real estate appraisal in choosing comparable cases and weighting determination, which will get rid of subjective and random decisions. So far there is no more similar academic paper found than this paper, which systematically introduces the new approach, to say nothing of detailed cases. The research achievement thus had been introduced to the relative real estate experts and is highly praised.

Errors concerning real estate appraisal have also been assessed in this paper, which has educed such beneficial conclusion as: "Traditional comparison approach is a precise approach of appraisal which is supposed to be adopted in practice, while the ap-

proach of fuzzy mathematics is a more precise one which is supposed to be used in the appraisal of more valuable or special real estate”

Subsequently, the paper discusses the complete conception of establishing real estate appraisal information system, including its principle of systematic structure, functions of all modules and the main characteristics of the system, emphasizing the introduction of mathematics module of fuzzy index and classification. The thoughts mentioned in the paper has been partially realized in the “Real Estate Appraisal Information System” developed by Real Estate Appraisal Co. , Ltd, which has gained effective results. It is firmly believed that the study and application of the information system will exert powerful influence on real estate appraisal, especially on fuzzy comparison approach and will thus unfold realistic significance to the development of approach and means of real estate appraisal.

Lastly, the paper has summed up the points from the whole text and expounded the main problems that should be handled as well as the conclusions drawn out from the research. Meanwhile the paper suggests some main contents yet to be solved in terms of real estate appraisal, including the difficulties of appraisal approach, improvement of handling the theory of “All in One” appraisal approach, degree of approaching in fuzzy mathematics, weighting determination as well as the research of appraisal information system, so as to perfect the approach of real estate appraisal and to cooperate with the relative institutions for the purpose of establishing complete real estate appraisal information

system. I firmly believe that the resolution of the above mentioned problems will play a very important role for the development of the real estate appraisal in our country and thus to bring about considerable social and economic benefits.

Key words: real estate appraisal approach, fuzzy mathematics, degree of subordination, weighting, decision of fuzzy comprehensive judgment, errors.

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1 绪论

1.1 拓展房地产估价方法的目的和意义

房地产估价是专业人员根据估价目的、遵循估价原则、按照估价程序、选用适宜的估价方法,并在综合分析影响房地产价格的基础上,对房地产估价时点的客观合理价格进行估算和判定的活动(见参考文献[1])。常规的估价方法有比较法、收益法、成本法和假设开发法。无论用哪种估价方法,从理论上讲估价结果应是一致的。由于影响房地产价格的因素复杂多变,各种估价方法存在误差大小也不一致,而且,由于对估价的立足点不同,实务中得出了不同的价格,再将这些不同的值进行主观的取值(如平均、加权平均等),因而对估价结果造成很大影响。本书将对此现象进行分析,力求从理论上使各种评估方法所得到的结论基本一致。另外,书中着重研究了房地产估价这个概念本义所具有的模糊性,而如何处理模糊现象,其难点之一就是怎样使这些模糊现象能够用定量的方法来处理。正是基于这种思想,提出了将模糊数学理论系统地应用在房地产估价这一领域,并取得了满意的效果。同时由于估价存在误差,本书用误差理论对传统比较法和模糊数学法估价的误差进行分析,得出了有益的结论;并对房地产估价信息系统的建立提出了基本构想。这些与房地产估价方法相关的分析与研究从深度和广度上属国内首创。