

# Seminar Description

---

The past decade has witnessed a revolution in the way investors—whether individual, corporate, or institutional—approach the problem of investment decision-making. At the center of the revolution is the explicit consideration of the possibility of option value. Thus, while the advice to “keep your options open” has always had common sense appeal, it is now finding its way quantitatively into investment analysis and valuation.

Early option theory and applications focused on financial options: those options, for example, that give investors the right to buy a security at a given (“strike”) price at some date in the future. Today financial options are a significant part of the capital markets. More recently has come the notion of “real” options, which are options to invest or not invest in activities that can influence the future performance of a firm, an investment, or a portfolio of investments. One example is investing in research and development to create options for future profitable manufacturing. Another is the option to delay investment today in order to keep the option open for a future investment based on what is learned about market conditions as time passes. It is this latter option that is potentially most valuable in real estate markets. Mounting evidence suggests it can have a significant impact on property value, especially the value of vacant land.

The first article that discussed the methodology of including option value concepts into real estate investment analysis and valuation appeared in the mid-1980s. Since then there have been dozens more. As a result, there is no longer a debate about whether option value exists in property markets. The task now is to quantify that value and begin to make it an explicit part of investment analysis and appraisal. When this is done, a number of market phenomena begin to make more sense—including the existence of vacant sites in what appear to be prime development areas and the use of what may seem unreasonably high discount rates to evaluate new development.

This seminar introduces the application of option value to the estimation of property values. It begins with a review of highest and best use theory and methodology, and then extends the traditional approach by including the impact of option value. The emphasis throughout is on application, and most of the day is spent with “hands-on” problem solving. Finally, while the theory of option-pricing can be complex, it is presented in this seminar as intuitively as possible, with a minimum of formulas. Nonetheless, it is a fast-moving day on a substantive topic that challenges us to think in different and interesting ways.

# Table of Contents

---

Seminar Description .....	vi
Seminar Schedule.....	viii
Learning Objectives.....	ix

## Part 1. Defining Highest and Best Use

Definition of highest and best use.....	1
An equivalent and more direct definition .....	1

## Part 2. Relating Highest and Best Use to Investment Decisions

Investment decisions are typically based on one of two related performance measures .....	7
Highest and best use and investment decisions .....	11

## Part 3. Examples of Situations that Require Highest and Best Use/Investment

### Decisions

When should current improvements be demolished to make room for a higher and better use? .....	17
Is renovation justified?.....	19
What to develop on a vacant site (traditional approach).....	21

**Part 4. Introducing Real Options: The Value of the Option to Wait**

Option—the right to do or not do something in the future .....27

Getting the idea: uncertain future income.....27

Build and sell now, or wait? .....29

The Baker Case, part B .....31

Uncertainty and land value: the Baker Case, part C .....35

Some market “results” of the existence of option value .....38

**Part 5. Lessons**

A review of key concepts.....39

**Appendix**

Related readings..... APP-2