

# Table of Contents

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<b>Seminar Description</b> .....	v
<b>Learning Objectives</b> .....	vii
<b>Seminar Schedule</b> .....	ix

## **SECTION 1**

### **Part 1. Real Estate Market Cycles**

Preview Part 1.....	1
Market/Marketability Analysis .....	3
Two Real Estate Markets .....	4
Reasons for Analyzing Real Estate Market Cycles .....	7
Four Stages of the Fundamental (Space-User) Real Estate Cycle.....	7
Characteristics of a Market at Equilibrium .....	11
Identifying the Current Stage of the Real Estate Cycle.....	24
Review Part 1.....	27

### **Part 2. The Six-Step Process**

Preview Part 2.....	29
Market Analysis and Marketability Analysis.....	31
Inferred Analysis vs. Fundamental Analysis.....	32
Step 1—Property Productivity Analysis.....	33
Step 2—Market Area Delineation .....	33
Step 3—Measure Current Demand and Forecast Future Demand .....	35
Step 4—Measure Current Supply and Forecast Future Supply .....	40
Step 5—Residual Demand Analysis.....	41
Length of Forecast/Projection Period .....	45
Step 6—Subject Capture .....	46
Review Part 2.....	55

## **SECTION 2**

### **Part 3. Office Case Study**

Preview Part 3.....	57
Office Building Fundamental Analysis Case Study .....	59
Assignment.....	63
Review Part 3.....	65

### **Part 4. Fundamental Analysis for Land Developments**

Preview Part 4.....	67
Fundamental Analysis for Land Developments .....	69
Study. Land Development (Subdivision) Fundamental Analysis .....	71
Assignments (4.6 Problem and 4.7 Problem) .....	76
Review Part 4.....	79

### **Part 5. Rental Apartments Case Study**

Preview Part 5.....	81
Case Study: Rental Apartments Fundamental Analysis .....	83
Small Group Assignments .....	94
Seminar Review and Recap .....	103
Review Part 5.....	107

## **SOLUTIONS**

# Overview

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## Seminar Description

This seminar provides an overview and review of fundamental demand analysis for real estate appraisers and wraps up with three simple case studies to allow some practice at applying the concepts to a valuation assignment. Fundamental analysis has been part of the Appraisal Institute curriculum for more than 35 years. Nevertheless, too many appraisers consider it intimidating, overly time consuming, and lacking in practical application. The primary objective of this seminar is to overcome those objections and encourage greater use of fundamental analysis, when applicable.

Part 1 of the seminar is a discussion of market cycles, both in the fundamental (space-user) market and in the capital (buy-sell) market. This is an important introduction to the seminar topic because real estate markets fluctuate between periods of oversupply and periods of undersupply. The purpose of market analysis is to determine the current balance of supply and demand and make predictions about the future balance based on likely changes in supply and demand. If an appraiser/analyst is able to determine where a market is in the cycle currently, future trends are more apparent because of the somewhat predictable pattern of market cycles.

In Part 2, we review the six-step process of marketability analysis. For participants who have taken the Appraisal Institute course *Advanced Market Analysis and Highest & Best Use* within the past 20 years or so, this will be a helpful review. For others, it will be an introduction to the process. The important conclusions are the calculation of residual demand—the ratio of demand to supply (Step 5 of the six-step process) and subject capture based on the ratio of subject capture to pro rata share (Step 6 of the six-step process). The simple Excel template provided can be expanded and adapted to a variety of property types and used in day-to-day appraisal work.

Part 3 is a case study focused on an office building in the CBD of a medium-sized city. Market conditions have been very good, but a large amount of construction in the pipeline raises the potential for overbuilding. This is the “contraction” or “decline” stage of the fundamental market cycle, which is often the most troubling for real estate appraisers. Too often, appraisers rely on historical trends and fail to recognize somewhat predictable changes in market conditions. For most assignments in a situation like the one presented in the case study, it is inadequate to simply report current market conditions. The goal of the case study is to make participants more aware of the circumstances that call for fundamental analysis and more comfortable applying the process when it is appropriate. In this first case, the demand forecast is based on the ratio method (the ratio of occupied office space to market area employment), so the calculations are relatively simple. Nevertheless, some judgment is required and seminar participants will come to a range of conclusions. In some cases, a simple fundamental analysis of this type can be an important contribution to a valuation analysis.

In Part 4, we note some unique considerations for a fundamental analysis involving a land development. One important distinction is that subject capture for a land development is often applied to residual demand, rather than overall demand. Following the discussion will be the second of three case studies in the seminar, this one relating to a single-unit detached residential subdivision. In this case, demand is calculated by the segmentation method, so the calculations are a little more complex. The case is still relatively simple, but it provides some introduction to the segmentation method of estimating demand and the unique issues with fundamental analysis for a land development.

Part 5 begins with a case involving a rental apartment project. This case introduces the complexity of a property that competes directly with properties in its immediate neighborhood or node, but also competes indirectly with properties in other parts of the greater market. This case is more complex and introduces some of the problems that can be faced in a real-world appraisal assignment. Templates are provided to allow development of both a ratio method and a segmentation method for the greater market, plus a more refined segmentation method applied to the subject's geographic submarket and competitive class. The case involves more issues and requires a significant amount of judgment, but it is completed in small groups to allow you the benefit of input from others when you develop your conclusions.

By the end of the seminar, you should be more comfortable with fundamental analysis and, hopefully, better prepared to start including it in your work whenever it is appropriate. Of course, a 7-hour seminar will not provide everything you will need for all situations. For additional training, refer to the Appraisal Institute text *Market Analysis for Real Estate* and consider taking the current version of the *Advanced Market Analysis and Highest & Best Use* course.

## Learning Enhancements

The seminar has been designed with a variety of elements to enhance your learning experience.

- **Preview.** To give you a taste of what is to come, each part begins with a preview page, which includes a brief overview of the content, learning objectives to consider as you move through the content, and, where appropriate, learning tips that will assist you in understanding the material you're about to cover.
- **Learning Objectives.** Each learning objective covers information required for understanding the concepts in the seminar. Look them over before the part begins so that you have a frame of reference as you move through the material. At the end of each part, reread the objectives. Are you able to do what is stated? If not, this is the time to ask your instructor for help or review the concepts that you do not understand.
- **Review.** The review page that concludes each part repeats the learning objectives and, where appropriate, lists key terms and concepts that have been covered.

- **Case Studies.** To supplement the discussions, case studies are included to help you plan to apply what you are learning.
- **Solutions.** Example solutions to the case studies are included in the Excel templates you downloaded before class. At the appropriate time, the instructor will provide the password to unlock the solution. Keep in mind that the cases are intended to include the kinds of imperfect data often available in a real-world assignment, so there is no one “correct” solution. In fact, some learning in the seminar will come from seeing how others in the class approached the problem.

## Classroom Guidelines

To make the seminar a positive experience for everyone attending, please observe the following:

- 100% attendance is required. No exceptions.
- Limit use of computers and wireless devices to classroom projects.
- Communicate with business associates during break time instead of class time.
- Put away reading materials such as newspapers and books that are not used in class.
- Silence cell phones and other communication devices.
- Use recording devices only if prior permission has been granted.
- Refrain from ongoing conversations with those seated near you and other distracting behavior.

## Learning Objectives

After completing this seminar, participants will be better able to

- Distinguish between the fundamental (space-user) and capital (buy-sell) markets and identify the impact each has on real estate values.
- Identify the four stages of the real estate cycle and recognize the characteristics of each stage.
- Recognize characteristics of a market at equilibrium, including equilibrium vacancy, feasibility/equilibrium rent, entrepreneurial incentive, and affordability index.
- Name the six steps in the six-step marketability analysis process and describe the typical process in each step.

- Given an equilibrium vacancy rate and quantified estimates of demand and supply, calculate residual demand and the ratio of demand to supply, and interpret the result.
- Calculate subject capture for a property based on a given ratio to pro rata share of supply.
- Recognize the strengths and weaknesses of fundamental analysis and identify situations when fundamental analysis should be included in the scope of work.

## General Information

- **Laptop computer/calculator.** All participants are encouraged to have a laptop computer loaded with Microsoft Excel or another spreadsheet program (such as Google Sheets) that can open and work on an Excel file. Instructors will demonstrate problems using Excel, but many of the problems can be worked with a calculator such as the HP-12C. No financial math is required.
- **Breaks.** Unless otherwise noted by the seminar sponsor, there are two 10-minute breaks per half-day session. There is a one-hour break for lunch.
- **Attendance sheets** will be distributed during class to verify your attendance during each half-day session.
- **Certificates of completion** may be downloaded after completion of the seminar, and attendance during the entire seminar is required.