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**SOLUTIONS**

# Overview

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## Seminar Description

One of the most thoroughly analyzed issues in investments literature is how the financing decision affects market value and investment performance. Much of that literature focuses on the impact of the debt equity mix on the value of publicly traded companies. There is a parallel though less extensive literature that addresses the same finance, value, investment performance relationship in real estate markets. This is not surprising, considering that debt-to-equity ratios (or, equivalently, loan-to-value ratios) tend to be higher in real estate markets than in any other investment category.

The importance of financing is reflected in real estate appraisal practice in various ways. Most visible is the assumption of “typical financing” that underlies most definitions of market value. Appraisal practice also includes a number of models and estimation techniques that explicitly reflect the financing mix. Examples include the band-of-investment and finance-explicit discounted cash flow models. There are also techniques like cash equivalency designed to separate the value of favorable financing from the value of the real property.

Appraisers are exposed to these approaches in various courses and seminars throughout their education and training. The objective of this seminar is to pull these materials together in a single, cohesive presentation. This objective is addressed in two basic ways. First, we spend time identifying the conceptual foundations underlying the finance, value, and investment performance relationship. Second, we frame these ideas in the context of appraisal practice, emphasizing the *why* as much as the *how*.

Participants will find this seminar to be a fast-moving, hands-on day. There will be plenty of class discussion and a lot of problems to solve. The day begins with a discussion and accompanying problems that address the question of how leverage impacts market values, risk, and expected return. Along the way, there is exposure to the concept of breakeven and indifference points, and how the financing decision “rearranges” the sources of return. Where appropriate, this will be related to appraisal methodology, especially the band-of-investment model, and participants will return to the question of why market value definitions routinely assume typical financing. The class will also revisit the cash equivalency model, and address the question of whether the use of debt creates tax sheltered cash flow, and why that may occur.

The seminar uses a combination of lecture, discussion, and problem solving. At the end of the day, participants will be able to critically analyze the impact of the financing decision, and how that decision affects appraisal practice and investment consulting.

## 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, you will find a Preview page, which begins each Part. Included on the *Preview* page is a brief overview of the content, learning objectives to consider as you move through the content, and learning tips that will assist you in understanding the information you're about to learn in the class.
- **Learning Objectives.** Each learning objective covers essential information you need to know to fully understand the concepts in the seminar. Look them over before each 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 perform what is stated? If not, this is the time to ask your instructor for help. Or, review the concepts that you do not understand.
- **Examples, Problems, and Discussion Questions.** Supplementing the discussions, we've included examples, problems, and discussion questions to provide everyday illustrations and help you visualize and practice what you are learning.
- **Review.** Each Part concludes with a review. Included in the review are the learning objectives and key terms and concepts that have been covered.
- **Solutions.** A tabbed section of Suggested Solutions appears at the end of the Seminar Handbook. This component contains solutions to the discussion questions and problems.

## Classroom Guidelines

To make the learning environment a positive experience for everyone attending, please follow these guidelines:

- 100% attendance is required. No exceptions.
- Limit use of laptops 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.
- Please silence cell phones and other communication devices.
- Please do not record the lectures. Recordings are not permitted.

- 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

- ☐ Analyze and measure the impact of the financing choice on market value and investment performance.
- ☐ Numerically demonstrate the impact of debt on market value and on the investment's expected return and risk.
- ☐ Calculate and interpret debt-related measures including the breakeven point, the indifference point, and the debt service coverage rate.
- ☐ Calculate the value of favorable financing.
- ☐ Recognize how the use of debt is related to the creation of tax-sheltered cash flows.

## General Information

- **Calculator.** A financial calculator is required. The accepted model used in the seminar is the HP-12C.
- **Excel download.** The materials include spreadsheets that contain solutions for some of the problems in Part 3. Refer to the spreadsheets after class.
- **Breaks.** There will be two 10-minute breaks during the morning session and two 10-minute breaks during the afternoon session unless otherwise noted by the seminar sponsor. The lunch break is one hour.
- **Attendance sheets** will be distributed during class to verify your attendance during the morning and afternoon sessions.
- **Certificates of completion** may be downloaded after completion of the seminar.
- **Attendance for the entire seminar** is required.

## Recommended Texts

- *The Appraisal of Real Estate*, current ed.
- *The Dictionary of Real Estate Appraisal*, 6<sup>th</sup> ed.