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Hotel Market Analysis and Valuation. International Issues and Software Applications ¹
by Stephen Rushmore, MAI, John W. O'Neill, MAI, PhD, and Stephen Rushmore, Jr., MAI

Author: Steve Rushmore, MAI, FRICS, CHA

This wonderful book include the history of the hotel industry, supply and demand issues, hotel market studies, forecasting revenues and expenses, the valuation process, and the current state of the lodging industry. A realistic case study applies the concepts discussed, and step-by-step use of Hotel Valuation Software is explained with data from the case study.

Hotel Market Analysis and Valuation: International Issues and Software Applications is unique in that it provides an in-depth, wide-reaching, up-to-date, and technologically advanced discussion of the market analysis and valuation of hotels around the world. This book contains a wealth of information that will prove to be valuable to appraisers who take on valuation assignments involving lodging properties.

¹ ISBN 978-1-935328-28-5 (alk. paper) 1. Hotels—Valuation. 2. Hotels—Valuation—Data processing. 3. Hospitality industry--Marketing--Data processing. 4. Marketing research--Data processing. I. O'Neill, John W., 1962- II. Rushmore, Stephen, 1974- III. Title. TX911.3.V34R856 2012 647.940680285--dc23

Steve Rushmore, MAI, FRICS, CHA presented the book as follows:

Steve Rushmore, MAI, FRICS, CHA, is the chairman and founder of HVS, a global hospitality consulting organization with 30 offices around the world. He is responsible for the firm's global business development and expansion. Steve has provided consultation services for more than 15,000 hotels throughout the world during his 40-year career and specializes in complex issues involving hotel feasibility, valuations, and financing. He was one of the creators of the Microtel concept and was instrumental in its initial public offering. Steve is a partner in HEI Hospitality, LLC, a hotel investment fund.

HVS (www.hvs.com), which Steve founded in 1980, has provided consulting services for thousands of clients in all 50 states and more than 60 foreign countries. Its professional staff of more than 400 industry specialists offers a wide range of services, including market feasibility studies, valuations, strategic analyses, development planning, and litigation support. Through its divisions, HVS supplies unique hotel consulting expertise in the areas of executive search, food and beverage operations, gaming, technology, hotel operations, asset management, marketing, interior design, convention centers, shared ownership services, risk management, property tax, parking, golf, spa, sustainability services, and investment banking. With its global coverage, HVS specializes in the appraisal of entire hotel companies such as Hilton Hotels and Resorts and Extended Stay America.

As a leading authority and prolific author on the topic of hotel feasibility studies and appraisals, Steve has written all six textbooks and two seminars for the Appraisal Institute covering this subject. He has also authored three reference books on hotel investing and has published more than 400 articles. He writes a monthly column for *Lodging Hospitality* magazine and is widely quoted by major business and professional publications. Steve lectures extensively on hotel valuations and investing and has taught hundreds of classes and seminars to more than 20,000 industry professionals. He is also a frequent lecturer at major hotel schools around the world, including Lausanne, Penn State, Cornell, Houston, and IMHI.

Steve has a BS degree from the Cornell University School of Hotel Administration and an MBA from the University of Buffalo; he also attended the Owner/President Management Program at the Harvard Business School. He holds MAI and FRICS appraisal designations and is a certified hotel administrator (CHA). He is a member of numerous hotel industry committees, including the Industry Real Estate Financing Advisory Council (IREFAC) and the NYU Hotel Investment Conference. In 1999, Steve was recognized by the New York chapter of the Cornell Hotel Society as "Hotelier of the Year." Steve Rushmore can be contacted at srushmore@hvs.com.

The text is divided into six chapters that lead the reader through the process of performing a hotel market study and valuation:

Chapter 1 provides a historic overview of the worldwide hotel industry, including discussion of the various economic cycles and trends impacting hotel supply and demand.

Chapter 2 details the steps for performing a hotel market study and valuation and the types of data required to perform a proper analysis.

Chapter 3 covers the first step of a hotel market study, which is to identify and quantify the demand for hotel accommodations within the market. The procedure used to quantify hotel demand is the build-up approach based on lodging activity.

Chapter 4 describes the supply portion of the market analysis. Local competitive supply is identified and the relative competitiveness of each hotel in the market is quantified. The end result of the market study is a forecast of a hotel's occupancy and average room rate.

Chapter 5 takes the occupancy and average rate forecast and converts it into a projection of income and expense using a fixed and variable forecasting model.

Chapter 6 encompasses the valuation portion of the study. The three approaches to value are described, and the income capitalization approach is detailed using a discounted cash flow mortgage equity model.

The book also contains a case study involving a proposed hotel; this case study demonstrates the theory and actual techniques for performing a hotel market study and valuation. The case study calculations are set forth in detail so that the reader can fully understand the logic and math behind the accompanying software. Following each step of the case study, the HVS Hotel Valuation Software is demonstrated with data from the case study. By following the detailed software screenshots, the reader will have a full understanding of how the software works.

This is the first textbook published by the Appraisal Institute that comes with a complete software package enabling the user to take the analyses described in the book and apply them to real-world hotel consulting assignments. The Hotel Valuation Software was developed originally by Suzanne Mellen and myself approximately 30 years ago at HVS using an Apple II computer with VisiCalc. Over the years, it has been updated extensively and converted first to Lotus 123 and then to Excel. Contributors to the development of the software over the years include many of the associates at HVS and professor Jan deRoos, the HVS Professor of Finance and Real Estate at the Cornell University School of Hotel Administration. The software provided with this book will produce results that are identical to those reached by HVS associates around the world. In addition, because this is the enhanced "tabbed" version of the Hotel Valuation Software, the user is able to change the calculations occurring within the programs; this is useful for performing complex assignments.

HVS Hotel Valuation Software is the only nonproprietary computer software designed specifically to assist in the preparation of hotel market studies, forecasts of income and expense, and valuations. Using state-of-the-art methodology, the software provides sophisticated models for

hospitality and appraisal professionals to forecast a hotel's occupancy, revenues, and expenses as well as perform hotel valuations. The software consists of the following three models:

1. *The Room Night Analysis Program is a supply and demand model for evaluating the complicated dynamics of local hotel markets.* This model:

- ✓ Enables the analyst to evaluate many competitive factors, such as occupancy, average room rate, and market segmentation of all hotels in a local market
- ✓ Calculates the area-wide occupancy and average room rate as well as the competitive market mix
- ✓ Measures the relative competitiveness of each existing and proposed hotel using a sophisticated penetration algorithm to determine overall market dynamics. This produces a forecast of occupancy for each existing hotel and proposed hotel in the market. The program incorporates such factors as competitive occupancies, market segmentation, unaccommodated demand, latent demand, growth of demand, and the relative competitiveness of each property in the local market. The program output is a 10-year projection of occupancy.
- ✓ Produces a forecast of average daily rate for a specific existing hotel or a proposed hotel in a local market over a 10-year projection period. The program incorporates factors such as expected inflation, current room rates by segment, and the market mix of the specific existing or proposed hotel.

2. *The Fixed and Variable Income and Expense Forecasting Model* take the occupancy and average daily rate developed by the Room Night Analysis Program and creates a detailed 11-year projection of income

and expense made in accordance with the Uniform System of Accounts for the Lodging Industry. This model:

- ✓ Enables the analyst to input comparable financial operating data that the software uses as a basis for the projections
- ✓ Works for both existing and proposed hotels and incorporates a highly accurate fixed and variable forecasting routine that is easily adapted to any type of lodging facility

This program is a valuable tool not only for appraisers performing hotel market studies and valuations but also hotel owners and operators who need to do budgeting and forecasting.

3. *The Hotel Mortgage Equity Valuation Model* performs a discounted cash flow calculation using a mortgage-equity valuation technique. Values are produced using three different loan underwriting criteria:

- ✓ A loan-to-value ratio in which the size of the mortgage is based on property value
- ✓ A debt coverage ratio (also known as a debt-service coverage ratio) in which the size of the mortgage is based on debt service and the property level cash flow
- ✓ A debt yield in which the size of the mortgage is based on the property level cash flow

By inputting the terms of typical hotel financing along with the forecast of income and expense, the programs determine the value that provides the stated returns to the mortgage and equity components. The software can handle a variety of holding periods and a refinancing of the property during the holding period.

The HVS Hotel Valuation Software can be downloaded from: www.hvs.com/hvssoftware

As my appraisal practice became more global, I thought it would be helpful to describe how hotel market studies and appraisals are performed throughout the world. In most regions of the world, the valuation of hotels has gone through a similar evolutionary cycle as it has in the United States. Initially, local appraisers had little experience in valuing hotels and relied primarily on the cost approach. Hotel owners generally owned one or two properties, and there were very few transactions to verify that replacement cost produced a reliable indication of value. As American hotel chains expanded—first in the United States and then in Europe, South America, India, and East Asia—hotel ownership became more sophisticated, transactions started to occur, and replacement cost no longer represented the valuation benchmark. Most hotel owners were looking for a financial return on their investment and began relying on an income capitalization approach. Global private equity and lenders also insisted on the utilization of an income capitalization approach. Today, most of the world has adopted the market study and valuation procedures pioneered by HVS and set forth in this book. The only holdout is China, which has not seen many transactions and has yet to fully embrace the income capitalization approach. Once the Chinese see the methodology used in other countries, they may adapt the income capitalization approach to valuing hotels. This text demonstrates how the room night analysis, the fixed and variable income and expense forecasting model, and the hotel mortgage-equity valuation model can be adapted to all the major markets throughout the world.

This book does not discuss the issue of separating real property, personal property, and intangible business assets. The reader should not construe any methodology or wording presented here as an approach for separating real property, personal property, and intangible business assets.

I trust that this textbook and software will become a useful resource for all your hotel market studies, valuations, and investment analysis needs