



SHA561: Financial Analysis of Hotel Investments

This course includes

- Four self-check quizzes
- Multiple discussions; you must participate in two
- Two tools to download and use on the job
- One final action plan assignment
- One [video transcript file](#)

Completing all of the coursework should take about five to seven hours.

What you'll learn

- Explain the varied motivations of owners, operators, and lenders in pursuing real estate investments
- Explain the different investment approaches taken by owners in the hotel industry
- Estimate the return on investment and the return on equity for a prospective hotel investment
- Estimate the value of a proposed hotel using a variety of methods
- Analyze and evaluate investment projects from the perspective of owners, operators, and lenders
- Structure hotel investments that meet the needs of all parties
- Size a loan that meets the needs of different partners
- Make informed decisions about the relative attractiveness of hotel investments



Course Description

Welcome to Financial Analysis of Hotel Investments. This course, produced in partnership with the Cornell School of Hotel Administration, is designed to introduce you to contemporary practices in lodging investments.

You will explore the multiple elements involved in the hotel investment decision. You will learn to evaluate hotel investment and hotel financing decisions by estimating investment and equity returns and by completing various valuation estimates. And finally, you will learn to structure deals that meet the needs of owners, operators, and lenders.



Jan deRoos

Associate Professor and HVS Professor of Hotel Finance and Real Estate, School of Hotel Administration, Cornell University

Professor Jan A. deRoos, on the faculty of the Hotel School since 1988, has devoted his career to hospitality real estate, with a focus on the valuation, financing, development, and operation of lodging, timeshare, and restaurant assets. He holds B.S., M.S., and Ph.D. degrees from Cornell University, all with majors in Hotel Administration. Areas of teaching expertise span the entire range of hospitality real estate topics: real estate finance; real estate principles; hotel asset management; real estate portfolio management; hotel and restaurant valuation; lodging market and feasibility analysis; hotel/resort planning and design; hotel/resort development and construction, and the analysis of timeshare/vacation ownership projects. He teaches courses in the Hotel School's undergraduate and graduate degree programs, teaches extensively in the Hotel School's executive education programs, and has developed an on-line professional Certificate in Hotel Real Estate Investments and Asset Management.

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Module Introduction: The Hotel Owner-Operator-Lender Partnership



Successfully putting together a hotel real estate investment is a complicated undertaking. The financial analysis that supports hotel real estate decision-making requires a nuanced understanding of what drives the major participants.

In this module, consider the interests and motivations of the owners of hotel properties, the independent and branded operators who manage hotels, and the financial institutions that lend to hotel owners. Consider also the different methods by which hotel owners seek to meet their goals.

When you have completed this module, you will be able to:

- Differentiate the interests and motivations of the major actors in hotel real estate investments: owners, operators, and lenders
- Explain the interests and motivations of different types of owners, and assess how they influence hotel real estate investments
- Describe different investment strategies prevalent in the hotel industry and apply them to varying ownership interests

*Click to listen to Professor deRoos
talk in more detail about the needs of
each partner.*



Listen: Putting Together Hotel Real Estate Investments

Fundamentally, this is a course about how you put together a hotel real estate investment. To introduce some of the issues, we'll begin with a very basic deal. You have an opportunity to purchase a \$30 million hotel. As the owners, you don't need to have the \$30 million available. You have the \$10 million of equity you will need, and you can reasonably expect to borrow \$20 million from lenders. This gives you the necessary \$30 million.

Your next step is to determine if the annual returns justify that \$10 million investment. To do this you need to make sure that the lenders receive an adequate return on their \$20 million investment; otherwise they will not lend you the money. You need to demonstrate that the operators, or managers, will receive a return adequate to their brand and to their management expertise. The operators may have many other opportunities in the market and may not consider your investment the best one.

You have a process: putting together the necessary \$30 million in capital for the hotel investment. And you have the major partners: the owners, the lenders, and the operators. The owners drive this process. They need to understand the ways the other parties make money, and they need to ensure that at some level each party is achieving at least their minimum returns. Once the owners know that all partners can realize their desired returns, the owners can proceed.



Read: Lodging Investment Participants and Advisors

★ Key Points

Owners contribute the equity

Lenders provide the capital

Operators provide the brand and the managerial expertise

Hotel real estate investments involve a range of different participants. In addition to the primary participants-the owner, the operator, and the lender-most include a range of specialists who facilitate the investment. Unlike the owner, operator, and lender, the involvement of these specialists is usually limited to the transaction (purchase and construction) of the hotel.

Let's look more deeply at the three major partners before considering the roles of the transaction specialists.

Owners contribute the equity to a hotel investment. There are many different types of hotel real estate owners, including:

- Entrepreneurs: usually individual owners or small firms
- Institutional investors: including real estate corporations, real estate investment trusts (REITs), real estate investment funds, insurance companies, and pension funds
- Owner-operators: when the hotel operator or manager also owns the property
- Governments: often governmental bodies such as national tourism organizations
- Owners-in-foreclosure: or lenders who have been forced to take ownership of the property due to the failure of the owner to meet obligations

As we will see, different types of owners have different goals for their hotel investments.

Lenders provide the majority of the capital needed to finance a real estate transaction. These lenders typically include commercial banks, conduit lenders, investment banks, credit companies, and insurance companies. Hotel real estate loans are generally of two types. The first are long-term loans established at a fixed rate of interest. Lenders are willing to take the interest-rate risk associated with a fixed rate over a lengthy term. In exchange, they extract significant penalties for terminating the loan. For borrowers with a short-term need for funds, lenders provide short-term loans with a floating rate of interest. In this case, the borrower has the flexibility to terminate the loan in a short time, but must take the interest-rate risk.

The debt capital provided by commercial lenders is often insufficient to finance the investment. In these instances, gap, or mezzanine, financing is employed to bridge the gap between the equity and debt capital contributions. Suppliers of "mezz" financing are paid after the primary lender has been paid, but before the owner. For absorbing this added risk, they extract a better rate. Suppliers of mezzanine financing typically include credit companies, specialty lenders, operating or franchise companies, and often governments (frequently through a range of tax incentives).

The third major participant in most hotel real estate transactions is the Operator. Some hotels are owner-operated, but most are operated either by a chain operating company or an independent operating company.

Operators provide the brand and the managerial expertise needed to successfully run the hotel.

In addition to the three major participants, a number of transaction Specialists participate in the successful execution of the investment. These include:

Brokers, who facilitate the sale of the property (sales brokerages) and the financing of the investment (investment or mortgage bankers). Sales brokers add value by knowing who might be a likely buyer. Investment and mortgage bankers add value by knowing who has the money to lend.

Consultants or appraisers perform the market analysis of the proposed property and estimate its value to help potential lenders better understand the level of risk.

Legal service providers help "paper" the deal, by facilitating the many necessary transactions, including land purchase, management contracts, loan documents, and construction contracts.

Architects and designers help achieve the owner's vision for the property, designing a physical structure consistent with the owner's concept.

Finally, Governments often play a substantial role in hotel real estate investments. In many parts of the world, government agencies, especially tourism ministries, facilitate development and redevelopment of hotels. In addition, local, state or provincial, and national governments exercise a regulatory role in ensuring coherent and consistent development policy.

Putting together a successful hotel real estate transaction involves a large number of actors. The three primary participants, however, are always the owner, the operator, and the lender. Let's take a closer look at their interests.



Read: The Partnership: Owner, Operator, and Lender

★ Key Points

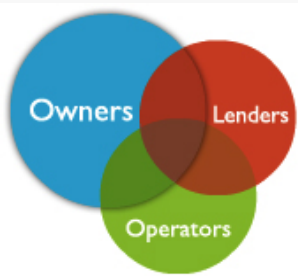
Owners are primarily interested in returns

Branded operators' primary interest is in market presence and market share

Lenders need to achieve an adequate overall risk-adjusted return on investment

Most hotel real estate projects involve a three-way partnership among owners, operators, and lenders. Each of these partners has different interests and different investment goals. Let's look at each participant and their interests.

Owners: One of the primary interests of an owner is returns. These can come in the form of income returns (operating cash flow) or appreciation returns (an increase in the value of the hotel). Both forms of returns matter to every owner, though one type will probably matter more, depending on the investment goals of the owner. After returns, owners are interested in owning a competitive hotel. They want a quality hotel product, located in an appropriate market, managed by an appropriate operator, with an appropriate brand.



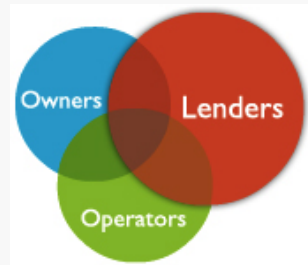
Additionally, owners are interested in influence over the management and operation of the hotel. They desire the influence necessary to execute their strategic vision for the property. Owners also want the flexibility necessary to sell or refinance when they so choose. Owners need this flexibility to harvest gains in appreciation. Finally, owners may own hotels for a range of nonfinancial reasons. For many owners, owning a hotel brings more prestige than other investments or other real estate. It is important to recognize the full range of motivations to truly understand owner behaviors.

Operators: The primary interest of the branded operator lies in market presence and market share. This is true for five-star hotels needing a property in every "gateway" city, and for budget chains needing a property in each market where they have customers. Operators need a presence wherever their customers are likely to look for lodging. Independent operators are primarily motivated by earning compensation for their management expertise.



To achieve their objectives, operators are also interested in operating a quality hotel, one consistent with the standards of

the brand, and one likely to provide substantial fees to the operator. Good managers or operators get paid for driving revenues (basic fees) and for running efficient hotels (incentive fees). Operators also look for the maximum possible level of discretion in managing the hotel in order to implement their strategic vision (to keep the hotel consistent with the brand and operator standards). Operators also want long-term stability, which can be achieved by signing a long-term contract that inhibits the owner's ability to terminate the contract at will or via a sale. Finally, operators are interested in the financial ability and willingness of the owner to fund renovations when needed and to supply working capital if circumstances call for it.



Lenders: The major objective of the lender is to be rewarded for the risk of lending by achieving an adequate overall risk-adjusted return on investment. Lenders manage risk by "underwriting" two critical items. First, the lender must be sure that cash flows are significantly higher than debt service. Second, the lender must be sure that the value of the property is significantly greater than the loan amount. Lenders are also looking for a quality, competitive hotel, managed by a first-class operator, as a means to manage risk. Lenders seek influence over their investment to execute their own strategic vision and to protect their investment. Finally, lenders are looking for the flexibility to foreclose or reschedule the loan in difficult times.

Owners, operators, and lenders must all prioritize their interests between these often competing objectives. Real estate investments must be structured to arrive at a reasonable accommodation of the interests of all three participants. The trick is to identify the places where the interests of owners, operators, and lenders may overlap. Arriving at such a position is the art of hotel investment.



Watch: **Different Reasons Have Different Investors**

The owner typically drives the investment process. Different types of owners have different investment strategies. These differing strategies play a crucial role in determining the shape of specific hotel investments.

An illustrated presentation appears below. Use this resource to enhance your understanding of the reasons an owner invests in hotel real estate.

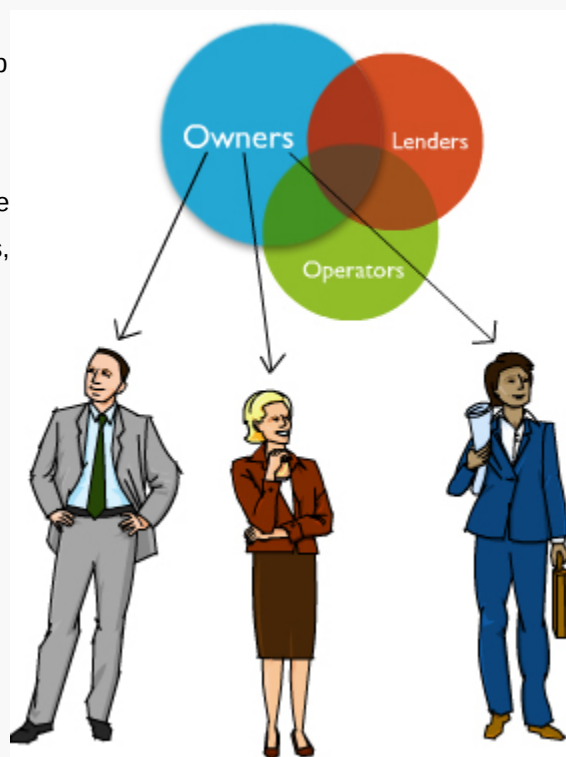
Read: Different Types of Owners

Companies invest in and own hotel real estate for varying reasons. Let's meet three different hotel ownership interests, and consider how they will evaluate potential hotel investments.

John Dough works for a private equity real estate fund. He is VP of acquisitions for Black Hall Lodging, an equity firm based in New York. Black Hall invests in hotels on its own and also partners with foundations, endowments, insurance companies, sovereign funds, and pension funds. Black Hall typically buys assets that they deem mispriced in the market. They are very good at identifying acquisition targets, making improvements to reposition the properties in the market, operating the hotels via third-party management for a short period, and then selling to realize their gains.

Sophie Smith is VP of hotel investments for the Actuarial Insurance Group of Hartford (AIGH), a large life insurance company. Sophie's firm attempts to put money to work earning consistent returns over a long period by investing in stocks, bonds, and real estate. AIGH wants high-quality, safe investments that yield consistent cash flows; real estate, including hotels, meets some of their needs. Sophie invests in hotels to provide a diversified real estate portfolio as an additional route to smooth cash flows.

Alexandra Rodriguez works for TarHeel Development, a developer in the North Carolina Research Triangle. She works to put two- and three-star products such as Comfy Suites, Sleep Right Inns, and Courtway Hotels in both the growing suburban markets and the urban cores of Raleigh and Charlotte. TarHeel identifies great locations in markets with growing demand for transient lodging. They buy land before its value is recognized, develop the property, then either sell it or operate it under a franchise.



John, Sophie, and Alexandra are all considering an opportunity in the Charlotte area. An established three-star, branded, 300-room property, managed by International Hotel Company, is located in the urban core of Charlotte. The property has ten years remaining on the management contract, but can be terminated by paying the operator a fee. The property is scheduled for a full guestroom and public area renovation in one year. The property's location makes it an attractive target for repositioning to a four-star hotel. There is also a lack of two-star properties in the Charlotte urban core. International Hotel Company is keen, however, to keep the property and perhaps reposition the hotel to its four-star Regal Crowne brand.

We will consider what factors determine how each potential owner evaluates the property.



Read: Matching Investment Projects with the Right Owners

A three-star branded hotel in Charlotte is available for acquisition from International Hotel Company. The hotel is in need of renovation. How might John, Sophie, and Alexandra evaluate the property?

John is very interested in repositioning the property from three-star to four-star status. The needed renovations are a plus, because folding the renovations into a repositioning story allows Black Hall to add value to their investment in the hotel.

Two key factors drive John's decision. First, he wants to secure a manager who is willing to operate under a "termination-upon-sale" arrangement, because many potential buyers would wish to operate the hotel themselves. Second, he must be convinced that there are buyers for the property once the repositioning effort is complete.

Sophie, interested in long-term cash flow, needs to know three things before committing:

- Does the hotel bring a diversification benefit to other hotels in her portfolio?
- Is Charlotte a strong hotel market in the long-term?
- Is the manager capable of producing consistently high cash flows from a well-maintained asset?

She is deterred by the costs of the upcoming renovation, but might be induced to sign a long-term management contract if International Hotel Company offers financial inducements.

Alexandra is interested in the ability to terminate the manager and to manage the property under a franchise arrangement. Her plans call for redevelopment of the property. The 300-room three-star hotel would be transformed into two hotels: a 150-room Life Hotel, International's lifestyle brand, and a 75-room Comfy Suites, International's midscale extended-stay brand. Using cluster management would provide significant opportunities for operational efficiencies by using one staff to run both properties. TarHeel would earn development fees from the redevelopment and would have two new properties in the market that could be held for the long-term or sold for a profit.

Who Acquires the Property?

Well, it may not be a single buyer. Situations may develop in which John, Sophie, and Alexandra could all be involved in the redevelopment of the property. Here are a couple of possible scenarios:

John might enter into an agreement with Sophie in which John agrees to take the risk of repositioning the property, performing the renovations, and replacing management. Once the property has restabilized, Sophie agrees to purchase the property from John at the prearranged price that reflects the anticipated cash flows. John's firm will make significant returns if the repositioning effort succeeds. But John's firm takes significant risk, because Sophie's firm is not obligated to purchase the property if it does not achieve the anticipated cash flows, and her firm is not responsible for cost overruns on the repositioning effort.

Alexandra might enter an agreement with John's firm to acquire and redevelop the property. John's firm supplies the majority of the capital needed to fund the acquisition and redevelopment effort. Alexandra's firm supplies a minority stake and the development expertise to execute the redevelopment effort. John's firm makes a healthy return for supplying the short-term bridge capital needed to redevelop the property. Alexandra's firm owns the project in the long-term, and has the option to continue to operate the hotels or to sell them should more interesting opportunities come along.

The question of who will own the property does not have a simple or single answer. The ultimate answer depends on how each potential owner evaluates the property. It also depends on how the operator and the lender evaluate the potential owners.



Listen: How Owners Play the Real Estate Game



Key Points

There are four basic approaches to achieving high, risk-adjusted returns through hotel real estate investment:

1. Wealth Creation
2. Value Added
3. Income Enhancement
4. Incremental Risk

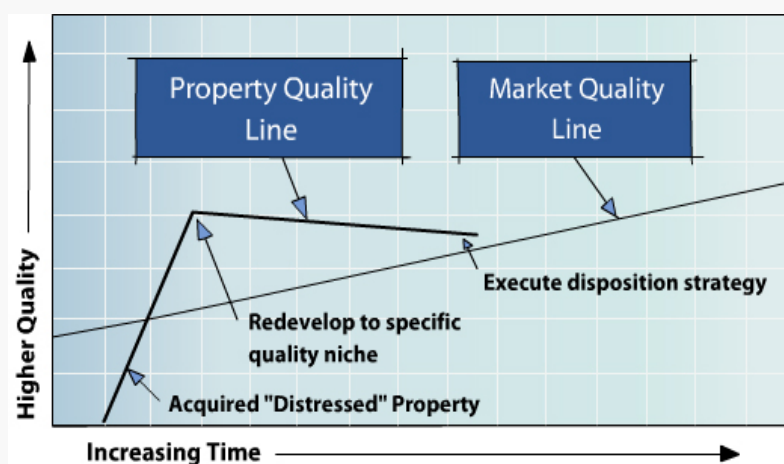
*Click the image to hear Professor deRoos
introduce each of these approaches.*

Read: **Wealth Creation**

In real estate, almost all wealth creation arises from development and redevelopment. Wealth creation strategies are driven primarily by market dynamics, particularly growth in population, employment, and income. Examples of favorable market changes for each of the major real estate property types include:

- Robust job growth in office-sector employment and changes in workplace technology create demand for new or redeveloped space.
- Changing demographics and increasing wealth create demand for new and different apartment space.
- New retail formats drive demand for new or redeveloped space.
- Expanding business activity and increased segmentation drive demand for new or redeveloped lodging facilities.
- New development focuses on creating wealth by providing above-market-quality space to satisfy unmet demand.

Typically, redevelopment creates wealth by repositioning a property to, or above, the new and improved market quality. The plan is to increase rents, decrease vacancy, or both, and hence improve cash flow. Graphically, the wealth creation strategy looks like this:



There are some important issues to keep in mind when employing the wealth creation strategy.

- During the development or redevelopment phase, you experience negative cash flow and illiquidity.
- Timing plays a critical role in success. In the long-term, disposition decisions must be made while the property still commands a quality premium to the market. In the short-term, the "exit" value is very sensitive to market conditions at sale.
- To succeed, you need high-quality acquisition talent, individuals skilled at finding opportunities or value that others do not see.
- Much of the total return is tied up in market value at exit, not ongoing cash flow.
- Extended holding periods will depress total returns, so this is essentially a buy or build and flip strategy.

This strategy, therefore, appeals to owners such as Alexandra at TarHeel Development. Alex is good at identifying assets misplaced in the market, repositioning them, realizing the gains brought with increased cash flow, and then selling before the property is again below market standard.

Read: Value-Added Investing

Value-added investing refers to strategies that seek to achieve high returns from value appreciation instead of income or cash flows. Investors exploit properties whose prices are discounted due to non-market risks such as event risk, liquidity risk, or information inefficiencies.

Value-added investing consists of two distinct steps:

1. Finding and closing transactions that the investor feels are mispriced by the market.
2. Structuring deals to mitigate risk as effectively as possible.

The key is an active strategy to neutralize the embedded risks so that the achieved or realized risk is much lower than the theoretical risk. The lowered risk is a direct result of management decisions made at the time of acquisition, stewardship, and exit. The contributions to risk control can take many forms:

- Legal skills
- Asset-management skills
- Relationship advantages
- Market advantages, such as preferential access to profitable buy and sell opportunities

The strategy relies heavily on risk reduction, with the "exit" designed to seek buyers who pay a premium for low-risk deals.

Issues with the value-added strategy:

- To succeed, you need a coherent set of risk reduction strategies. Trusting that time will diminish the risk is not sufficient.
- Timing plays a critical role in success. The "exit" value depends on finding buyers willing to pay a premium for low risk.
- You need high-quality acquisition talent, individuals skilled at recognizing value that others do not perceive.
- Much of the total return is tied up in market value at exit, not in ongoing cash flow.
- Extended holding periods depress total returns, so this is essentially a buy and flip strategy.

Examples

Tip:

Here are some examples of how the value-added strategy might work

1. An investor such as John might buy a hotel with "good bones" but with what John evaluates as an underperforming brand. Buying a good hotel for a fair price, John might terminate the existing management contract, bring in a new branded operator, invest funds to meet the new brand's standards, and then sell for a significant premium. By rebranding, John has reduced the risk, making it a more stable property. John would be likely to sell the new, low-risk property to an investor such as Sophie, who is interested in stable cash flows.
2. An investor might have to purchase a bundle of properties, including one current "loser." The investor can add

value by "fixing" the losing property (through a change in brand, management, or by repositioning or renovation). The investor may then sell the properties individually, for a significantly higher sale price than the acquired portfolio. The investors exploit their transaction skills and repositioning skills to add value.

3. An investor might assume a significant level of "event risk." Investors in post-Hurricane Katrina hotels in New Orleans might be able to buy at very low prices, timing the recovery of the market. If done correctly, these investors can then realize significant appreciation gains.

Read: **Income Enhancement**

The ability to actively participate in decisions at the property level is one of the distinguishing features of real estate, as opposed to traditional equity or bond investing. The income enhancement strategy focuses on asset management and property management skills to enhance cash flows. It is the dominant strategy for owner-operators of real estate.

Since the strategy is focused on income enhancement, it is seen as consistent with long-term holding periods. To overstate the case, since the current owners are more efficient operators than "any other" operators, they produce a higher cash flow than "any other" operators. Hence they have the highest valuation for the property, and hence they can never sell it for what it is worth to them because "any other" potential investor has a lower valuation.

The key to a successful income enhancement strategy is to deliver on one or more of the following:

1. Lift revenue through rate increases or occupancy increases. The key is superior marketing skills and operational efficiencies.
2. Economies of scale.
3. Strong asset or property management skills with excellent expense management.
4. Extending the "market life" of properties.

Issues with the Income Enhancement Strategy

- It is easy to be trapped into thinking that you are a "better than average" operator. It is important to ask from time to time if the property is worth more to someone else.
- Strong asset and property management skills are needed. It is difficult to overestimate their importance.
- In general, this strategy does not rely on superior transaction skills, only that properties be traded at the market price. Typically, a rolling investment tactic is employed, structured to stabilize cash flows across a portfolio and neutralize business cycle risk. In a large fund, purchase and sale proceed slowly, but continuously, as aging properties are disposed of and new ones purchased to refresh the portfolio.
- Total return is driven by income, not appreciation. Although some of the increased income can be capitalized into the property price, the market may not view the enhanced income as transferable to new owners.
- This strategy produces high "cash-on-cash" returns relative to the wealth creation and value-added strategies.

Income enhancement is a strategy likely to appeal to investors such as insurance companies that are interested in long-term, dependable cash flows. Sophie at AIGH would place income enhancement at the foundation of her investment strategy.

Read: Incremental Risk

Using terminology from modern portfolio theory, this strategy is focused on making property investments have a high 'beta.' That is, relative to a 'market' portfolio of real estate, this strategy seeks to embrace risk in a systematic fashion, and be rewarded for taking the additional risk. The two traditional means of embracing risk are:

1. Invest in riskier property types such as hotels, raw land development, or speculative office projects
2. Add debt to increase equity returns

Investors having special relationships with lenders often implement this strategy. In many cases, not only does the special relationship result in lower interest rates, it can also result in higher loan-to-value ratios.

This strategy is often implemented in concert with the value-added strategy, which seeks to reduce the risk of individual properties, or portfolios of properties. The combination might work as follows:

- An investor purchases an asset that is misplaced in the market. The investor takes actions that reduce the risk and the risk reduction boosts the value of the investment. That is the value-added strategy.
- The investor continues to hold the asset, and borrows against the new, improved value. The investor harvests some of the equity investment and makes a nice return by continuing to hold the asset. That is the incremental risk strategy.

With lenders and capital providers in the business of evaluating risk and pricing leverage accordingly, the combination provides a mechanism for owners to participate in potentially extraordinary returns to equity capital.

Issues with the Incremental Risk Strategy

- It is the intrinsic nature of the investments (the riskiness of the lodging) that provides the mechanisms for excess returns, not any special skill on the part of the manager. This is both a good and a bad thing.
- Performance measurement must explicitly allow for the increased risk of investments, some sort of risk-adjusted return metric is needed.
- Owners need to have an appetite for increased risk.

This strategy would appeal to John at Black Hall. Due to his firm's strong relationship with lenders (debt capital), and the large number of real estate investments in Black Hall's portfolio, John would have the necessary appetite for additional risk. The appeal of strong returns would lead John to embrace this incremental risk approach.

Summary

This 'taxonomy' of wealth creation strategies is meant to stimulate your thinking about the linkage between individual property investing and portfolio management. The four strategies represent different approaches, tradeoffs, risks, and styles of ownership. Clearly, investors in the real world employ more than one of these approaches to achieve their goals. Different properties, or different investment possibilities, lend themselves to one approach or another. The perspectives contained in each approach should assist you in assessing a given firm's approach to the market.

Module Introduction: Evaluating the Deal: How Owners, Operators, and Lenders Evaluate Proposed Projects



Evaluating a potential hotel investment requires a thorough understanding of the financial implications of the deal. Producing accurate estimates of the returns for owners, operators, and lenders is a crucial first step in assessing the viability of a specific investment.

Owners, operators, and lenders must be able to accurately estimate their returns before they can decide whether to proceed on a prospective investment. Owners drive the process. They must estimate their own returns and determine whether the returns for the operator and lender are sufficient to entice them into the deal.

In this module, learn to estimate the returns for each of the participants, and learn to use a range of methodologies to estimate hotel value.

When you have completed this module, you will be able to:

- Estimate the return on investment by calculating the net present value and the internal rate of return
- Estimate the owner's return on equity by calculating the net present value and the internal rate of return
- Explain how operators and lenders evaluate their investments in an owner's project
- Combine the investment evaluations of the owner, operator, and lender
- Explain three approaches used to estimate the market value of a hotel
- Apply various methodologies to produce estimates of value
- Reconcile the approaches to produce a final estimate of market value



Watch: **Managing the Acquisition**

An illustrated presentation appears below. Use this resource to enhance your understanding of the hotel acquisition process.

Read: Finance Definitions

The time value of money

The idea that a dollar received today is worth more than a dollar received in the future. To accept a dollar in the future rather than today, investors need to be rewarded for:

1. Allowing others to use their funds (the real rate of return)
2. Inflation
3. Risk (both default and volatility)

Compound interest rate

The annual rate of return a specific sum of money earns when invested over a number of periods. This rate incorporates the three broad categories of rewards identified above (real rate of return, inflation, risk).

Discount rate (or discount factor)

The inverse of the compound interest rate.

Hurdle rate

The minimum rate of return an investor is willing to accept in order to invest his or her money. The hurdle rate is also known as the opportunity cost or the required rate of return.

Present value

The value today of one inflow or a series of inflows expected in the future, assuming the inflows have earned a stipulated compounded rate of return.

Future value

The value that a specific sum of money invested today will have at a future time, assuming that the money earns a stipulated return that compounds on an annual basis.

Net present value (NPV)

The sum of the discounted cash inflows less the sum of the discounted cash outflows, all discounted at the hurdle rate.

The NPV's relationship to the project's actual return

- If the NPV is positive, the actual return is greater than the required return.
- If the NPV is zero, the actual return is equal to the required return.
- If the NPV is negative, the actual return is less than the required return.

Internal rate of return (IRR)

A project's implied rate of return; it is the discount rate (rate of return) that produces an NPV of zero.



Watch: **Measuring Returns**

An illustrated presentation appears below. Use this resource to enhance your understanding of how investment and equity returns are estimated.



Listen: How Do Operators and Lenders Evaluate the Project?

You've now explored how owners evaluate possible hotel investments. But how do operators and lenders evaluate potential investments?

While lenders are primarily driven by yield, operators have both financial and non-financial reasons for investing. Before deciding to move forward with a potential opportunity, they need to know the answers to a series of questions that will help them assess how the investments meets their fee-related criteria and their nonfee-related criteria.

Click to hear Prof. deRoos talk more about these criteria and how operators and lenders go about evaluating prospective investments.

Read: The Operator and the Lender

★ Key Points

Operators and lenders use different calculations

Operators evaluate based on NPV

Lenders determine the yield they can expect to realize on the loan

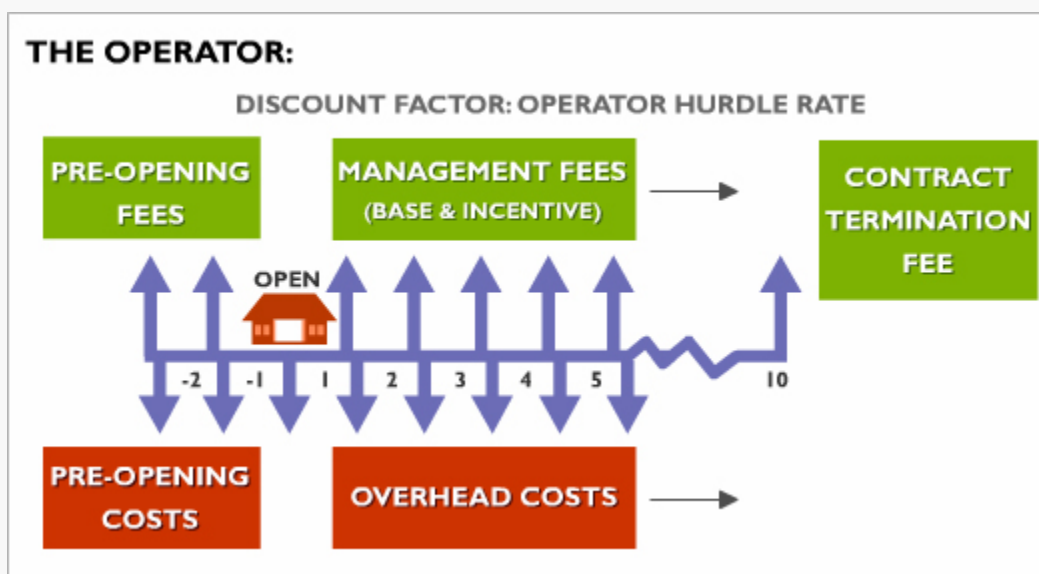
We've seen the ways owners calculate returns. Operators and lenders use their own calculations to evaluate a prospective investment. We'll consider each in turn.

Operators

For operators, the evaluation is purely fee-driven. It is driven by the net present value (NPV) of the property, not by yields. The operator wants to know if this is the right hotel compared with other potential projects. Do the fees from the management contract provide proper compensation for the operator's services? If it is a branded operator, does the brand fit with the project? If it is an independent operator, the brand is moot. It is all about execution. Given that the operators cannot participate in every hotel opportunity, they must determine if this is the best deal.

The operator must first determine the hurdle rate. Large firms know the hurdle rate in advance. It is the weighted cost of capital plus a risk premium for the deal (though this risk premium may not be included for certain low-risk deals). An independent operator is unlikely to know the cost of capital. They generally set a fairly high discount rate. They decide they will need to earn a certain amount of return per year to compensate for the execution risk.

Look at the diagram below:



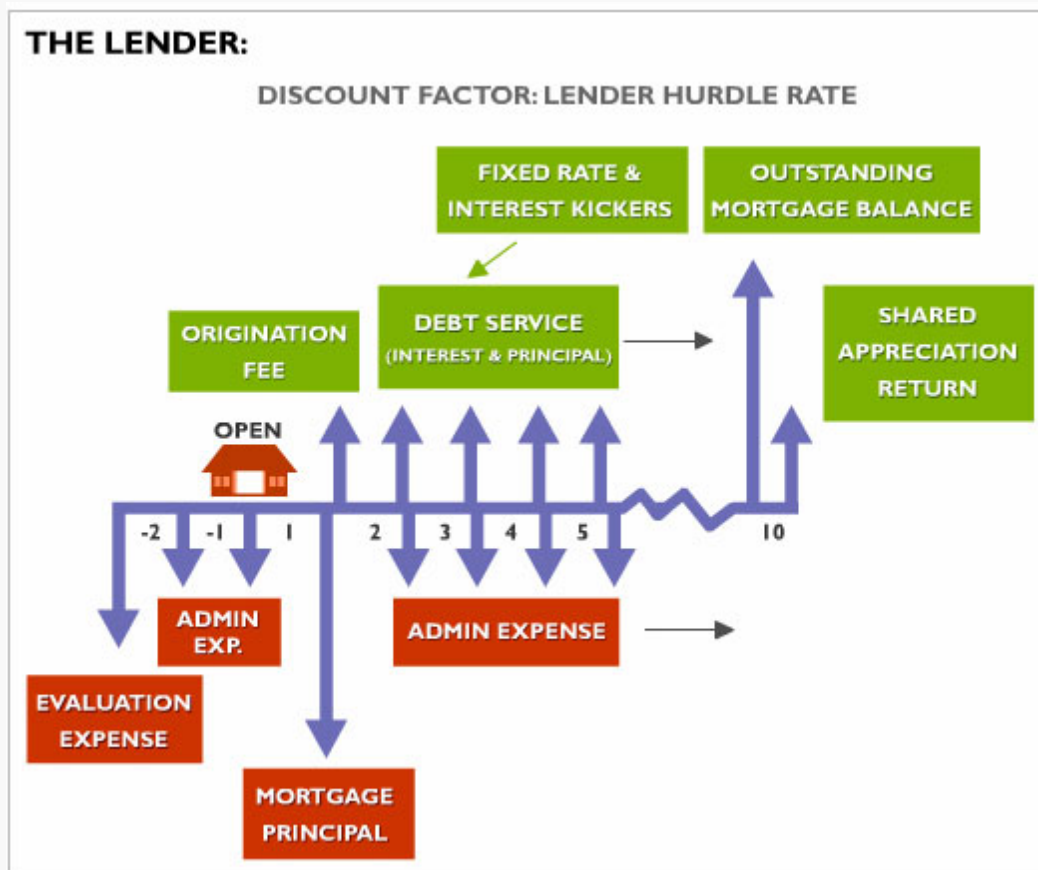
We determine the NPV of the property by taking the management fees, deducting costs, and then discounting for each year at the operator's hurdle rate. The fees include pre-opening fees paid to the operator and pre-opening expenses paid by the operator. They include the management fees received by the operator each year (including base and incentive

fees) less the operator's overhead costs. Finally, they include the contract termination fee paid to the operator at disposition. All these fees are discounted at the hurdle rate and the resulting sum is the NPV. A positive NPV suggests a management contract that will provide the operator with a suitable return. The operator would be interested in this deal.

Lenders

For lenders, the calculation is quite different. Lenders like hotels because they get a yield premium due to the added risk. Hotels are the riskiest of the major real estate options (which include office, multifamily, retail, and hotel) with the highest rate of default. Because of this, hotels have the highest returns to lenders, as the lender bakes the default risk into the loan. Hotel owners looking for loans must recognize that they are competing against other real estate opportunities, not just other hotels.

For lenders, the key is clearing the hurdle rate. Lenders are not concerned with NPV. Instead, they focus on the internal rate of return (IRR). Here is a good illustration of how lenders go about evaluating potential investments:



Lenders determine the yield they can expect to realize on the loan. The major cash flow out for the lender is obviously the mortgage principle, but it also includes evaluation and administration expenses incurred before the loan is issued. The lender obtains annual debt service, including any interest kicker, over the course of the holding period. Administrative expenses are subtracted from this debt service. The lender calculates the IRR for each of these annual flows. If the IRR calculation results in a yield larger than the lender's hurdle rate, the lender is likely to find the loan attractive.

An owner interested in successfully negotiating a hotel investment must be able to estimate the returns for each of the major partners.

Read: **The Hungerford Hotel**

★ **Key Points**

Analyze the return on investment

Consider how investing and financing decisions are made

Click [here](#) to download and save a valuation of the Hungerford Hotel.

Now that we've examined how owners, operators, and lenders evaluate projects to determine if they will receive their desired returns, let's look at how this works out in a real-world situation. Here we introduce an investment possibility facing Alexandra Rodriguez and her firm, TarHeel Development. We use this example throughout the rest of the course both to illustrate the concepts we are considering, and to keep ourselves rooted in a realistic example. We begin with some necessary background and context.



Case Background

On a chilly March day, Alexandra Rodriguez sits in her office at TarHeel Development (THD) reviewing the proposed Hungerford Hotel in Grandville, a growing southeastern city in North Carolina's Research Triangle. Recently, THD has concentrated on developing Hungerford Hotels, a 200-unit chain similar in concept to Hilton Garden Inns and Courtyard by Marriott. THD has just successfully opened three Hungerford Hotels in the Southeast. They operate the hotels under a franchise license from Hungerford, a US-based hotel company. The proposed project is THD's first Hungerford in the Research Triangle region.

TarHeel Development

THD is a family-owned business started about 40 years ago by Gus Chung, a Chinese immigrant. Gus started the business with a small roadside motel and the firm grew with friendly service and a "hands-on" management approach. The firm has grown from two small independent motels to a portfolio of 15 branded hotels plus other real estate holdings. What was a small owner-operator of independent small hotels is now a respected regional developer and owner of branded select service hotels.

Alexandra has worked at THD for 10 years. Her primary role has been that of vice president of development, responsible for finding new development sites and building the appropriate hotel on the site.

The Investment and Financing Decision

THD has submitted a loan application for the project to the local commercial bank (LCB). The following summary data has been developed:

THD's development department has estimated the cost to develop as \$24,000,000. The construction costs have been verified by a general contractor, and the furniture, fixtures, and equipment (FF&E) costs are based on those of a similar hotel that opened recently. The bank's appraiser prepared a forecast of hotel operations, and used that to generate an estimate of market value of \$25,100,000. Alexandra feels that the Grandville economy is much stronger than indicated in the market study and appraisal report. She is convinced that property performance will be stronger than the bank's appraisal pro forma indicates. However, LCB insists on using the appraisal report's estimate of market value in their evaluation. The bank's conservative approach is evident in the size of the loan they are willing to extend, which is 75% of the costs of development, not 75% of the appraised value.

Last week, Alexandra submitted her loan application to the local commercial bank. The bank responded favorably, indicating that the project would be considered for a loan, given the success of THD's two recently completed projects. The senior loan officer provided a term sheet with the following loan terms:

Development cost	\$24,000,000
Loan size	\$18,000,000, based on a 75% loan-to-cost ratio
Interest rate on mortgage	6.75%
Amortization term	25-year term, monthly payments

THD has a long relationship with the LCB and feels that continuing to "shop" the loan would not be productive. Both Gus and Alexandra believe in the Hungerford concept and feel that a new hotel in Grandville would be a great success, especially in light of the firm's recent experience with the brand. To support the investment decision, Alexandra must calculate the returns on the investment, using the current loan terms from LCB. To do so, she will need to answer several key questions:

- What is the net present value (NPV) of the overall investment decision, not considering borrowing?
- What is the NPV of the equity investment decision, after taxes?
- What is the NPV of the management contract, as THD pays its management subsidiary a management fee to manage the property?
- What is the lender's yield on the mortgage loan?

Gus would like to have the answers to these questions within a week, as he is anxious to make a decision about the project.



Watch: **Estimating Returns: The Case of the Hungerford Hotel**

An illustrated presentation appears below. This presentation introduces a spreadsheet to assist in your financial analysis. You will use this spreadsheet later in the course. Use this resource to enhance your understanding of estimating returns.

Listen: What's it Worth?

To make informed decisions about a prospective or an existing hotel investment, all parties need to have accurate estimates of the value of the hotel property. There are a range of different methods used to produce these estimates, each with different strengths and weaknesses.

In this section we look at a classic real estate problem: determining the value of a property without selling it. What is a property worth? Or what's the value of property? And why would anybody be interested in the value of the property if you're not going to sell it?

Reasons to value a property:

1. To Inform an investment or lending decision

As we've just seen, the first reason to value a property is to inform an investment or lending decisions about a property. Investors and lenders hire appraisers to estimate the market value of the property so that the initial investment and lending decision can proceed.

2. To calibrate a hold-versus-sell decision

The second reason is that the value of the property is the absolute bedrock piece of information needed to calibrate a hold-versus-sell decision. Investors traditionally decide, on an annual basis, whether they should continue to hold the property and continue to earn the returns, or sell it and redeploy the capital to better opportunities. You can't make that decisions without an estimate of market value.

3. To estimate holding period returns

The third reason to value your property is to have a really good idea what the holding period returns are. We know what the income returns are, the cash flows. But the second piece of the return is the change in value over time, or appreciation return. Without periodic estimates of market value, we can't calculate the change in value to calibrate our appreciation returns.

4. To inform portfolio decisions

The fourth reason to value your property is to inform hold-versus-sell decisions on a portfolio of properties. In this context, what's needed is an estimated market value to determine whether the portfolio continues to produce the risk-adjusted returns that the investor is looking for.

Now that we've explored the reasons to perform a market valuation, we need to consider how to go about valuing a hotel property. Click to hear Professor deRoos explain the different options.



Read: Market Comparison and Cost Approaches

★ Key Points

Market approach is useful if there are a number of analogous properties for comparison

Cost approach is useful for properties built according to chain standards or new properties

Here we look at two of the three main approaches used to estimate the market value of a hotel property. First we consider the market comparison approach, where the property should be worth what an identical property just sold for. Next, we consider the cost approach, where the property is worth the cost to construct a replacement, less depreciation.

The Market Comparison

The market comparison approach is useful if there are a number of analogous properties for comparison. Taken step-by-step, a market comparison is conducted as follows:

1. Research the market to find recently sold, similar properties and determine accurate data such as price, room count, amenities and condition of the property, and conditions of sale from each.
2. Reject comparable properties that may not be good value indicators for the subject property. This is usually due to non-arms length transactions (related party or seller financing) or partial interests that are sold.
3. Compare the physical characteristics, location, time of sale, condition of the property, and financing of the comparable properties with those of the subject property.
4. Where the subject property and the comparable properties differ, adjust the comparable's selling prices according to the market reaction to those differences.
5. From this analysis, estimate a final value for the subject property.

The strength of the market comparison approach is based on the availability of data from similar properties sold recently. The approach does have distinct limitations. First, its use is limited by any rapid or extreme changes in market conditions that affect price. Second, no two properties are ever truly comparable, a problem that gets worse with unusual or unique properties and with higher-quality properties.

The Cost Approach

The cost approach is especially useful for properties built according to chain standards and for relatively new properties. Again, let's take a step-by-step look at this approach:

1. Estimate the new cost to reproduce or replace the structure and other improvements, not including the land value. A reproduction refers to a complete replica. A replacement refers to a building of similar utility or usefulness applying currently used materials and building techniques. The replacement cost is most often estimated.
2. Estimate the loss in property value (depreciation). This may be done using a straight-line method based on the property's age as a percentage of its useful life, or a breakdown method that takes into consideration physical deterioration, functional obsolescence, and economic obsolescence.
3. Deduct total depreciation from the estimated new cost.

4. Estimate the value of the land as if it were vacant, typically using the market comparison approach.
5. Add the land value to the depreciated value of the structure and improvements for a total value estimate.

Even in circumstances when the cost approach is most applicable, it still has limitations. Cost estimates may be inaccurate, and depreciation estimates are highly subjective.



Read: Income Approaches: Capitalization Rate Approach

We use income approaches to value a hotel property based on the present value of the future cash flows we expect the property to generate. These flows can be valued in a number of different ways. We examine the most common approaches.

Let's begin with valuing the flows using the capitalization rate approach. First we'll look at the model, then at an example (Note: the colors in the model are keyed so that you can follow the terms through the example.). In the model, the value is equal to the stabilized net income divided by the capitalization rate.

			Stabilized Net Income (CFFO)
Model:	Value	=	Capitalization Rate

The stabilized net income, or cash flow from operations (CFFO), is derived from a forecast of revenues and expenses, with the cash flows estimated using the appraiser's estimate of long-term equilibrium. Let's look at how the capitalization rate is calculated.

Capitalization Rate Calculation:

	(Leverage	times	Rate)
Mortgage	(Loan-to-value ratio	x	Mortgage Constant)
Plus Equity	(Equity-to-value ratio	x	Equity Dividend Rate)

You take the loan-to-value ratio (LTV ratio) and multiply it by the mortgage constant, then take the equity-to-value ratio (ETV ratio) and multiply it by the equity dividend rate. Summing these two numbers gives you your value estimate. Let's see how this looks in a real world example:

Mortgage Finance Terms:

Capitalization Rate Calculation: The stabilized net income is divided by the capitalization rate to calculate the capitalized value: The model produces a very precise answer, estimating the value down to the dollar. Remember, however, that this is an estimate. The capitalized value of the property is **\$40 million**.

What are the strengths and limitations of the capitalization rate approach? First, the model is analytically compact. It doesn't require a lot of forecasting or analytical work, a clear plus. Second, the information needed is very supportable. The only difficulty is finding data for the equity dividend rate. Finally, it is very useful for stable properties in stable markets. On the limitation side of the ledger, the model doesn't recognize changes in the market or the asset. If future cash flows are different than those in the past, estimates of the stabilized year are notoriously difficult. Also, it is not a yield-driven model, it is a dividend model, and investors are driven by yields. Finally, keep in mind that it does not consider cash flows over the holding period and sale at end; it is just a single-year model.

Mortgage Interest Rate:	7.00
-------------------------	------

Mortgage Amortization:	25 years				
Mortgage Constant:	0.084814				
Loan-to-Value Ratio	65%				
Equity Dividend Rate (before tax)	13%				
	<u>Leverage</u>		<u>Rate</u>		<u>Weighted Average</u>
Mortgage	65%	x	0.084814	=	0.055129
Equity	35%	x	0.130000	=	0.045500
Overall Capitalization Rate				=	0.100629
\$4,000,000	divided by	0.100629	=	\$39,750,061	



Read: Income Approaches: Ten-Year DCF and Multipliers

★ Key Points

Perform a ten-year discounted cash flow (DCF)

Examine a calculation of the ten-year DCF

Examine room-rate multiplier models

Ten-Year DCF

Now let's turn to a second income approach to valuing the flows, a ten-year discounted cash flow (DCF). To perform a ten-year DCF, you basically make the same calculations as when estimating equity returns by determining NPV. You sum each year's cash flows during the holding period. You add in the sale proceeds (sale price less selling expenses). The sale price is estimated by dividing the CFFO for the 11th year by the terminal capitalization rate. Cash flows and sale proceeds are all discounted by an overall discount rate. The totals are then summed to arrive at the total valuation.

Let's look at this through an example. For this example, we'll assume an 11% overall discount rate, a hotel capitalization rate in year ten of 8.3%, and 4% selling expenses. We have cash flows from operations in years one through eleven. We need to calculate the net sale proceeds. This can be calculated as sale price (CFFO for 11th year divided by terminal cap rate) less selling expenses.

Value Estimate Using a Ten-Year DCF

Assumptions	
Overall Discount Rate	11.0%
Hotel Capitalization Rate in Year 10	8.3%
Selling Expenses	4.0%
Year	Cash Flow From Operations
1	\$ 5,966,000
2	\$ 5,966,000
3	\$ 5,496,000
4	\$ 4,754,000

Reversion Calculation- Hotel	
Estimated Hotel CFFO in the 11th Year Divided by the Cap Rate	
Estimated Year 11 CFFO	\$6,904,000
Capitalization Rate	8.3%
Expected Sale Price	\$82,848,000
Less: Selling Expenses	\$3,313,920
Net Sale Proceeds	\$79,534,080
Valuation	

5	\$ 5,243,000
6	\$ 6,264,000
7	\$ 6,840,000
8	\$ 6,746,000
9	\$ 6,645,000
10	\$ 6,774,000
11	\$ 6,904,000

		Discount	Discounted
		Factor	Cash Flow
Year	Cash Flow		
1	\$ 5,966,000	0.900901	\$ 5,374,775
2	\$ 5,966,000	0.811622	\$ 4,843,763
3	\$ 5,496,000	0.731191	\$ 4,018,628
4	\$ 4,754,000	0.658731	\$ 3,131,607
5	\$ 5,243,000	0.593451	\$ 3,111,465
6	\$ 6,264,000	0.534641	\$ 3,348,990
7	\$ 6,840,000	0.481658	\$ 3,294,544
8	\$ 6,746,000	0.433926	\$ 2,927,268
9	\$ 6,645,000	0.390925	\$ 2,597,695
10	\$ 86,308,080	0.352184	\$ 30,396,366
Value of the Hotel			\$ 63,045,101

To arrive at the valuation, multiply each year's cash flows by the discount factor to arrive at the discounted cash flow for each year (one through ten) of the holding period. The discount factor is calculated as one divided by the discount rate raised to the nth power, where n is the year of the cash flow. For example, the discount factor of 0.811622 for year 2 is calculated as $1/(1.11)^2$. The value of the hotel is the sum of each year's DCF plus the DCF from the net sale proceeds. In this example, the value is \$63 million.

What are the strengths and limitations of the ten-year DCF? The ten-year DCF is an accurate, supportable model that explicitly considers flows over a holding period. It can also explicitly account for a cycle, unlike the snapshot approach of the cap rate model. On the other hand, the ten-year DCF requires a forecast of cash flows and is only as good as those forecasts. Also, although the cap rate today is observable, the cap rate in future (terminal cap rate) is more difficult to forecast. Changes in the cap rate over the ten-year term would change the value of the property.

Room Rate Multiplier Models

In addition to the capitalization rate approach and the ten-year DCF, we will consider two multiplier models. Both are very quick, rule-of-thumb models. First, the room rate multiple. You simply take the average room rate and multiply it by \$1,000 to get the value of each room (or key). Then take the value per room and multiply by the number of rooms to arrive at your valuation. Let's take the simplest example, a 200-room hotel with an average room rate of \$100:

Average room rate (\$100) x \$1,000 = \$100,000 value per room

\$100,000 per room x 200 rooms = \$20,000,000 value for hotel

What are the strengths and limitations of the room rate multiplier? On the plus side, it is a simple, quick, and easy method

that provides a solid, rule-of-thumb estimation of a hotel's value. It is essentially a room revenue multiplier, setting the value of the hotel at 3.5-4.5 times the annual room revenue. On the other hand, any rule-of-thumb estimate is a blunt instrument, unable to gauge value with any rigor or precision. More specifically, this method poses a dilemma: what ADR do you use? Last year? This year? A stabilized year? In practice, most people in the industry use the current year, which can pose serious problems if this year is anomalous in any way.

Coke-Can Multiplier

On a lighter note, let's look at a fun method we might call the Coke-can multiplier. Basically, this is the price charged for a soda multiplied by \$100,000 = the value of the room. Think about it: at your average Red Roof Inn, sodas are available at a vending machine for about a dollar. As you move up the star chain, the soda becomes pricier. At a Hyatt you may pay \$3 for a soda from the in-room mini-bar. At the Four Seasons you pay \$5 for the soda from room service.

Obviously, you should use this technique sparingly. Some properties seriously "misprice" soda in relation to property value!



Watch: **Illustrating Valuations: The Case of the Hungerford Hotel**

Alexandra needs to have reliable estimates of value to facilitate her decision on the Hungerford. See how each of our approaches to estimating value arrives at a valuation.

Module Introduction: Structuring the Deal: Current Equity and Debt Financing Structures



In this module you examine the loan-sizing process and explore the different options for financing projects. You engage in a loan analysis and sizing exercise. You apply what you have learned to arrive at an investment recommendation.

When you have completed this module, you will be able to:

- Explain the major options for financing hotel real estate projects and connect them to the relevant owners
- Forecast the size of a loan for a given project using the lender's underwriting criteria
- Analyze a prospective loan from the borrower's perspective
- Make and defend an investment and financing recommendation

Read: **How Do You Raise the Money?**



A wide range of options are available for equity financing. Different types of owners assemble the necessary capital, including the necessary equity, in different ways.

Real estate investments require large amounts of capital. How do hotel owners raise the funds necessary to finance their investments? Here we look at how three different investors might implement their approach.

We start with Sophie. Recall Sophie works for an insurance company. Her fundamental driving goal is a desire to put large amounts of her capital to work as equity. She uses debt strategically to boost equity yield slightly, especially if small amounts of debt, say 25 to 50% of the capital stack, add little risk to her equity position. Because she's not capital-constrained-she has plenty of funds to put to work-she has no use for mezzanine funds. The real question that determines how much equity she contributes is the risk-adjusted return.

Now let's contrast Sophie with John. John works for a real estate investment fund. Like Sophie, John's fundamental driving goal is to put a significant amount of equity to work, but unlike Sophie, John wants to achieve a significantly higher desired equity yield than Sophie's. John uses large amounts of debt capital to significantly boost the equity yield to his deals. He is seen as a low-risk borrower, so banks are generally willing to extend high loan-to-value (LTV) loans to John. It's not unusual for John to achieve debt levels in excess of 75%, sometimes approaching 80%, meaning he has to put 20 to 25% equity in the deals. This means that over the long-term John has to do many more deals than Sophie to achieve his desired equity returns, because he puts less amounts of his capital in each deal.

Lastly, we will take a look at Alexandra. Recall that Alex is a developer. She is fundamentally a wealth creator and she is usually severely capital-constrained. She is full of creative ideas and wonderful sites to be developed or redeveloped, but she is short of capital. Alex needs to find capital partners willing to support her vision of development. Her fundamental driving goal is to use her limited equity to develop and redevelop property by taking on these partners. She is seen as a relatively risky borrower. So banks are generally unwilling to extend high-LTV loans. In general, it would be difficult for Alex to borrow more than 65% of her funds from a traditional first mortgage lender. Alex wants to put in somewhere between 10 and 15% of the capital stack.

Thus, Alex has a gap problem. She puts in 15% of the capital as equity, the first mortgage lender puts in 65% as debt. The result is a 20% gap. The solution is to use mezzanine funds to bring her borrowed funds from 60 to 80% (or more) of the total capital. The mezzanine money is expensive, but it is the grease that gets her deal done.

According to real estate folklore: first you do the deal, then you raise the money. The first money you raise is always equity. So we will start with equity financing before moving on to debt capital.



Read: Equity Financing: Real Estate Equity Funds

Let's begin our look inside possible hotel investment capital stacks by considering private equity funds. A private equity fund is a collective investment mechanism where large amounts of equity capital can be united, usually under the direction of a fund sponsor. The best way to explain how this works is to take an example.

John Dough, our vice president of acquisitions at Black Hall Lodging, works for a firm that has put together a private equity fund to drive greater returns. The firm makes a proposal to potential equity capital contributors. John's firm proposes to raise \$1 billion for hotel investment. At this stage, Black Hall has no specific plans to invest in any particular property; however it does have a strategy to purchase underperforming properties, and it has a track record of achieving 30% annual equity returns. To raise the \$1 billion, John approaches potential investors such as high-net-worth individuals, sovereign funds, pension funds, insurance companies (in fact, John might approach Sophie at AIGH), and other real estate investors. Those investors who agree to participate are trusting in Black Hall's record of achieved returns. They place their contribution in a blind pool (they do not know what it is they are buying), generally handing over control of their money for a three- to seven-year period (the fund has the ability to redeem 4%-5% of the invested equity each year, but generally the investor's money is committed).

Once the fund is assembled, John begins to acquire hotel assets. He adds debt as needed, stretching the equity contribution as far as he can. It would not be unusual for John to turn his \$1 billion in funds into \$4 or \$5 billion in real estate assets.

What does each of the partners in the private equity fund provide and what does each partner achieve?

The fund sponsor, Black Hall, primarily provides expertise. It is John's job to source and acquire the properties for the fund. Black Hall also provides seed money and administrative expertise for the fund. In exchange, Black Hall receives:

- Fees. These include acquisition, administrative, and management fees. For example, Black Hall may typically receive a fee of 0.5% to 1% of the value of the owned assets for asset management.
- A percentage of profits and losses
- A percentage of cash flow from operations (after preferred returns are paid to the fund investors)
- A percentage of the net proceeds from refinancing
- A percentage of tax benefits

What about the fund investors? Obviously, their contribution is cash, paid either as a lump sum or a staged pay-in. What do they receive?

- A percentage of profits and losses
- A preferred cash return ("preferred" means that these investors obtain a return prior to Black Hall obtaining their cash return)
- A percentage of cash flow from operations (after the preferred cash return)
- A percentage of net proceeds from refinancing
- A percentage of net proceeds from sale
- A percentage of tax benefits



Read: Equity Financing: Joint-Venture Agreement

★ Key Points

Joint venture may be attractive to the small developer

Joint venture requires negotiation of key provisions

Private equity funds are for the major players in real estate investment, the "big players" with large amounts of capital for investment. What about the small developer who does not have the track record or the available capital, but has a great investment possibility and does not want to go to a fund? For these developers, a joint venture is often the preferable route.

In this arrangement, the equity portion of the capital stack is assembled through an agreement between two partners. Usually these consist of a sponsor or developer, who provides the expertise, and a money partner, who provides the majority of the equity capital. In the case of an acquisition, the agreement is usually between a sponsor and a money partner. In the case of a new property, the agreement is usually between a developer and a money partner.

Alexandra, at TarHeel Development, would be a likely candidate for a joint-venture agreement. Chronically capital-constrained, she does have development expertise and a strong sense of the market in the Research Triangle. A joint venture with a money partner might help Alexandra raise the equity component of her capital stack. Sophie and AIGH might be a likely money partner for this joint venture.

Alexandra, via TarHeel, would develop the deal, in exchange for the long-term fees associated with the project. Sophie agrees to form a joint venture and contribute a substantial amount of equity capital, conditional on Alexandra receiving a certificate of occupancy. Alexandra can then take the joint-venture commitment to the lending community for the necessary debt capital. She can receive a permanent loan commitment, again conditional on achieving the certificate of occupancy. Alex can then take the joint-venture agreement commitment and the permanent loan commitment to construction lenders to secure funding during the development or acquisition process. Neither Sophie nor the bank wants to commit money until the hotel can be occupied.

In this particular joint venture, Sophie, as the money partner, would be the majority owner. Thus, even though Alexandra provides much of the development expertise, Sophie's money wins her a voice in design, standards, or anything other area where she seeks a measure of input or control.

- A successful joint venture requires the negotiation of certain key provisions. The agreement must establish the percentage of ownership for each partner. Additionally, the partners must agree on what contribution constitutes the basis for this percentage. It may be made up of cash, land, other assets, services provided, other value brought to the project, or some combination of these.
- The agreement must specify the roles and voting rights for each partner during each phase of ownership: development or acquisition, operation, and disposition.
- The agreement must specify the funding requirements. These include the amounts, the methods and terms of funding, and the fund release schedule. Provisions for additional funding, including cost overruns and greater-than-anticipated negative cash flow from operations, must be specified. The agreement should specify

adjustments in the joint-venture ownership percentages if any partner fails to meet its funding obligations.

- The agreement must specify provisions for termination of any contract or agreement between the joint venture and any partner, and for termination of the joint-venture agreement.

A joint-venture agreement may be a sound method for a developer such as Alex to raise the necessary equity capital for an investment. It can also be a lucrative means for Sophie to put her capital to work achieving the stable returns she desires.



Read: Equity Financing: Real Estate Investment Trusts

★ Key Points

REITs = large pools of equity capital for hotel investment

REITs are publicly traded

Like private equity funds, Real Estate Investment Trusts (REITs) are large pools of equity capital for hotel investment. Unlike private equity funds, however, REITs are publicly traded ¹. Because of this the real estate in the trust has much more liquidity than a private fund, that is, one can sell the shares at any time.

REITs are a common exit strategy for owners of hotel portfolios. The portfolio owner takes a set of assets, and sells them to the public through a REIT initial public offering. REIT share holders achieve a very liquid form of real estate, providing returns without the day-to-day burden of managing the asset or assets. Their payout structure (REITs are required to distribute at least 90% of their taxable income in the form of dividends) and lower risk profile make them attractive to many public investors, especially pension funds.

REITs are typically put together by a sponsor, much like a mutual funds sponsor. REITs in the United States are exempt from corporate income taxes provided they conform to the following rules:

- 75% of the assets in the REIT must be real estate (either whole assets, shares of other REITs, or mortgages)
- 75% of the revenues of the REIT must come from real estate
- 90% of the REIT's taxable income must be paid out in the form of dividends-they can retain only 10% of the taxable income for growth.

A key metric in evaluating REITs is the ratio of the Enterprise Value to the Net Asset Value (NAV). Enterprise value is the total value of the company's shares plus the value of the company's debt. NAV is an estimate of the market value of the firm, defined as the sum of the values of the individual properties in the firm. Generally calculated by a Wall Street analyst, NAV is compared to the firm's enterprise. If the enterprise value is greater than NAV, the firm trades at a premium to its market value. If the enterprise value is less than NAV, the firm trades at a discount to its market value. This relationship plays a key role in arbitrage decisions made to realize gains in taking private real estate public, or in taking REITs apart and converting assets back into private real estate.

REITs Around the World

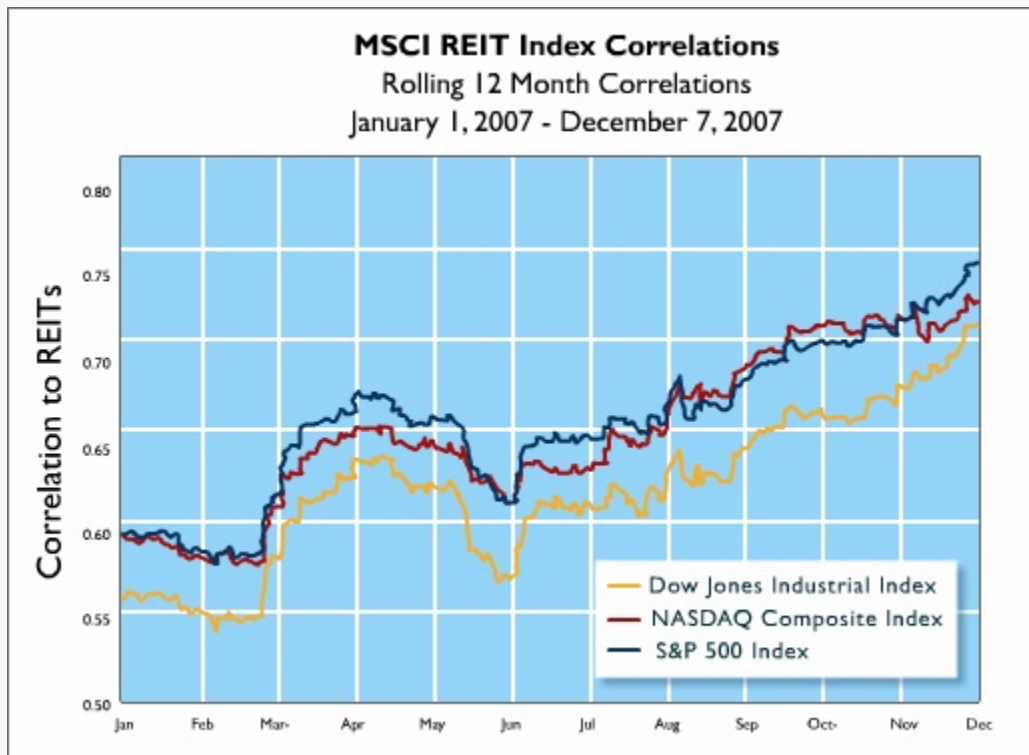
Though the number of REITs has decreased in the United States in recent years, REIT structures are increasingly common around the world. There are many more such structures available now than there were even a few years ago. The REIT model has been historically underdeveloped in Europe, but it is growing in the UK, Germany, and France. Though family ownership networks still predominate in Asia, REITs are beginning to emerge there as well; Japan, Singapore and Australia all have well developed REIT (or property share) markets.

Issues Considerations for REITs

- Interest Rate Sensitivity: Since REITs have high dividends, they are often purchased for their dividend yield. If interest rates go up, and REIT dividends are unchanged (as a percentage of the REIT stock value), the REIT

stock price will decline until the REIT dividend is in equilibrium with interest rates. For example, suppose T-Bills have a 5% dividend and REITs have (on average) a dividend rate of 7%. If T-Bill rates increase to 6%, the REIT dividend rate will need to increase to 8% to have the same 2% spread. If REITs do not increase the cash payout to achieve the 8% dividend rate, the REIT price will decline to achieve an 8% dividend rate.

- Correlation between Stocks and Real Estate: one of the benefits of real estate in an investment portfolio is the lack of correlation between stocks and hotels. For REITs, however, this benefit is diminished. The correlation between REITs and the major stock indexes is strong, and has strengthened over time.



Rolling REIT Correlations. *REIT Cafe*. <http://www.reitcafe.com>

- Dividend Payout Ratio and Performance: The dividend payout ratio is the ratio of dividends paid to funds from operations (FFO); it is essentially that percentage of cash flow that is paid to share holders (note that REITs are required to pay at least 90% of their taxable income as dividends). Generally, REITs with low payout ratios perform better than those with high payout ratios as the firms can use these internally generated funds for growth. REIT payout ratios have averaged about 75% over the past 10 years.
- Growth Strategies: REITs generally grow in two ways:
 - Organically: by using good asset management skills to obtain greater cash flows from the same asset base
 - Via Acquisitions: by using debt to acquire properties, then 'taking out' the debt via a 'follow on' offering of stock. This is a riskier method than the first method.

How do REITs connect to the ownership interests we have considered in this course? Both John and Alex would consider selling properties to a REIT at the end of their holding periods. REITs need stable, cash-flowing assets. In fact, some REITs have agreements with developers to purchase assets after stabilization at a fixed capitalization rate.

Sophie would be interested in being a REIT shareholder. Remember, in addition to wanting to put large amounts of capital

to work over long periods of time, Sophie's insurance company has a need for liquid assets. Sophie would be attracted to the liquidity REITs provide.

¹There are a few non-listed REITs, whose shares are not traded on a public exchange. They represent a very small portion of REIT market capitalization.



Watch: **What Do Lenders and Borrowers Want?**

An illustrated presentation appears below. Use this resource to enhance your understanding of the goals of both lenders and borrowers in the loan negotiation process.

Read: Debt Financing Terms

★ Key Points

Understanding basic financing terms is critical

Study any unfamiliar terms

A wide variety of debt financing options are available for hotel mortgages. Explore the most important, beginning with some basic debt financing terms.

Principal

The amount of the loan.

Term

The number of years the borrower gets to use the money.

Amortization

The number of years upon which the payment is based.

Balloon

The remaining mortgage balance when the term is less than the amortization.

Interest rate

The annual rate of interest on the loan.

Origination fee and points

Fees charged at the beginning of the loan for the privilege of being able to borrow the money. The origination fee generally covers the lender's cost. Points are fundamentally yield boosters. One point is a charge equal to 1% of the loan amount paid to the lender at the time the loan is originated.

Prepayment management

A set of devices used by lenders to prevent borrowers from prepaying the mortgage before the end of the term. These include:

- Lockout: the borrower is contractually prevented from prepaying.
- Yield maintenance: the borrower pays a prepayment fee that provides the lender a stated yield over the loan term.
- Defeasance: the borrower provides the lender with securities that replicate the contract interest rate over the loan term.

Recourse loans

Give lenders access to other borrower assets in addition to the real property if the borrower defaults.

Contingent interest

Also called a "participating loan"; gives the lender additional interest based on the operating results.

Hotel investments often involve more than one type of debt financing, as borrowers combine a preliminary mortgage for the hotel construction with the permanent mortgage.

Construction mortgage

This is often the first mortgage taken out in a real estate investment. It is a floating-rate, interest-only mortgage used to finance the construction of a new hotel. Interest accrues and is added to the loan balance for the duration of the loan. The construction loan balance (funds advanced plus accrued interest) is then "taken out" by the permanent mortgage.

Permanent mortgages

- Fixed-rate mortgage: a mortgage in which the interest rate is fixed for the term. Generally terms are relatively long, 7 to 15 years typically, with 20- to 30-year amortization. This loan usually has a "balloon payment" at the end, requiring the borrower to pay the remaining mortgage balance (the "balloon") when the loan term is less than the amortization.
- Floating-rate mortgage: a mortgage in which the interest rate floats over an index for the term of the mortgage. The most common index is the London Interbank Offer Rate (LIBOR). These are generally short-term loans, for 2 to 5 years, with no amortization (they are so-called "interest only" loans). These loans generally have lower debt coverage ratio (DCR) and higher loan-to-value (LTV) constraints than fixed-interest loans. Floating-rate loans often come with extension options, allowing the borrower to extend the loan for one, two, or three additional years in exchange for additional points (1/4 or 1/2 point per extension).
- Participating mortgage: a modified fixed-rate mortgage where there is a fixed rate of interest, generally lower than an equivalent term fixed-rate mortgage, and in addition the lender participates in cash flows on the property. The lender generally takes some percentage of the property revenues.
- Convertible mortgage: a mortgage where the lender has the ability to convert the mortgage into equity at very specific points in time. In exchange for this right, the lender gives a lower interest rate. Convertible mortgages are not common.

In addition to these basics, there are also several "flavors" of combination or extension mortgages. The most important include:

- Combined construction and term loan: also known as a mini-perm loan, this combines the construction loan (generally an interest-only, floating-rate mortgage) with a floating-rate mortgage for a short term after opening. This allows the borrower to have the property stabilize after opening before refinancing into a larger fixed-rate mortgage. The borrower has to go to the capital market twice (to secure a mini-perm and then refinance into a permanent loan), not three times (secure a construction loan, which is "taken out" by a floating-rate mortgage, which is subsequently taken out by a fixed-rate loan once the property stabilizes).
- Bridge loan: similar to a construction and term loan, but used for acquisitions. If you acquire a property and

reposition it, a bridge loan funds the cost of the acquisition plus needed renovations. This loan is a "bridge" to a larger loan once the property stabilizes.

- Sale-leaseback: not really a loan. You can think of a sale-leaseback as a 100% loan-to-value mortgage where you retain control of the property through the lease, and are able to achieve "mortgage proceeds" that are 100% of the value of the property. It is often framed as an alternative form of financing.
- Tax increment financing (TIF) and payment in lieu of taxes (PILOT): government-assisted loans in which government agencies provide pieces of (or facilitate) the capital structure. These government programs are generally secondary to the first lender, but they get paid before equity gets paid. They are funded through either a tax holiday or some other mechanism that reduces property taxes earlier in a property's life.
- Seller financing: a device that many sellers use if they have a purchaser who may not be able to borrow in the regular financing markets. In this case the seller may extend some financing to that buyer as a way to get the property sold. Generally, seller financing is expensive money, but many sellers embrace the technique because the worst thing that can happen is they get their property back in a foreclosure. It is also seen by sellers as a mechanism to turn their risky equity capital into less-risky debt capital.

Read: Project Presentation for Lenders

★ Key Points

Borrowers and lenders are business partners

Loan application is borrower's business case

Consider the borrower's position. The borrower knows what the lenders are looking for when they review a loan application. First, the lenders would like a high rate of return. Second, they need to balance their loan portfolio. They have coverage ratio targets (DCR) for any type of property and they have portfolio targets. The lenders want a certain amount of real estate in the portfolio, and within real estate, they want a certain amount allocated to lodging. Third, the lenders must evaluate whether or not they are interested in owning a hotel if the borrower should default. This last criterion prevents some lenders from considering loans for hotel investments. They simply have no interest in owning a hotel via a default.

Borrowers need to put together a formal loan application package that addresses these issues. This package is designed to convince the lender of the benefits of this project, to "sell" the entire investment to the lender. The borrower also hopes to achieve some influence over the underwriting of the loan. The loan application is the borrowers' opportunity to share their vision of the project with the lenders. The package includes:

- Documented market analysis and operating projections. In a perfect world these would be prepared by a third-party consultant. In many cases the lender accepts these from the borrowers when they have a good relationship and the borrowers have a demonstrated record of delivering on their promises.
- Documented turn-key cost. This should explain what the turn-key costs are to build the property if it is new, or what the total costs are of an acquisition.
- A developer package. This includes a wealth of information about the developer or borrower and their background. It includes:
 - Objectives for ownership
 - How the borrower's equity is structured
 - Who the borrower's partners are, if they have any
 - Who the borrower's major principals are, with background on each
 - Details of any partner commitments between the borrower and third parties, including copies of partnership agreements
 - Background on financial assets and completed projects for the borrower in the past; a history or vita
- Evidence that an operator has agreed to operate the project if a third-party operator is needed. Ideally, this would include a copy of the management contract, a copy of the franchise agreement, or a copy of the lease.
- Architectural renderings for a new project or glossy photos for an acquisition. This is a key element of selling the project to the lender. Show the lenders a great set of images to help them envision the property and commit to the project.
- Evidence that the borrower has searched land use and title issues. This may entail evidence that the borrower can obtain legal title to the land, evidence that the property can be used for the intended purposes, and evidence that all necessary economic and environmental impact studies have been successfully completed.

- Finally, the borrower is well advised to prepare a forecast of the lender's cash flows. What is the lender likely to achieve by providing the debt capital for this project? This should include projections for good and bad times. For a straightforward, fixed-rate loan, this might not be necessary. But for a participating loan, or a loan with conversion features, it is advisable to help the lender understand what the returns will look like.

Throughout this process it is very important that the borrower treat the lender as a business partner. Lenders have seen many applications. If they spot any "puff" or dubious numbers, they will probably treat the entire application with suspicion. By treating lenders as business partners, you can convince them that you will treat them fairly and honestly. This goes a long way toward helping the borrower obtain a loan that meets their objectives.



Watch: **Sizing the Loan**

An illustrated presentation appears below. Use this resource to enhance your understanding of how to size a loan.

Tool: **The Lender's Response**

 [Download the Tool](#)

[Hungerford Project Term Sheet](#)

The term sheet results from a negotiation between a borrower and a lender over the terms of a loan. It answers a simple question for both parties: what did we agree to? It is a very useful means of ensuring that the borrower and lender are on the same page.

Click the link to the right to download the the term sheet for the Hungerford project.



Tool: Mortgage Worksheet



Download the Tool

[Mortgage Calculation Worksheet](#)

You can use this Excel file to see how changes in the mortgage interest rate, amortization term, payments per year, mortgage constant, LTV ratio, debt coverage ratio, appraised value, or cash flows from operations change the loan size via the LTV or the DCR.

Just enter a new value for any of the blue cells to see the adjusted loan sizes. Remember, the smaller of the two ratios will be the size of the loan.

Click the link to the right to download the mortgage calculation worksheet.



Click Play to Listen

Jan deRoos

HVS Professor of Hotel Finance and Real Estate
School of Hotel Administration, Cornell University

Listen: **Thank You and Farewell**

Hi, this is Jan deRoos again. A primary goal in any hotel investment is to make money. By now, you should have a better understanding of the role played by the three dominant actors in the hotel investment community: the owner, the hotel operator and the lender. In order for any of these actors to truly achieve their objectives, they need to understand the motivations and incentives of the other actors. Participants who have the insight to anticipate the needs of others generally find success by creating an environment in which everyone wins. This doesn't mean giving up returns, it means crafting deals which allow all parties to get to yes.

I hope you found this course to be a stimulating and informative introduction to the financial analysis of hotel investments. In addition, I hope that you will continue with the next course in this certificate program.

Stay Connected

Additional Resources

The [Center for Hospitality Research](#) provides focused whitepapers and reports based on cutting-edge research.

