

SHA566: Achieving Hotel Asset Management Objectives

This course includes

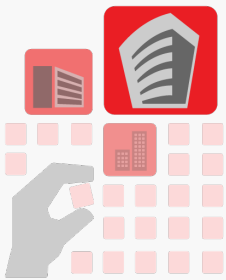
- Two self-check quizzes
- Multiple discussions; you must participate in two
- Two tools to download and use on the job
- One Ask the Expert interactive
- Two scored projects
- One final action plan assignment
- One [video transcript file](#)

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

What you'll learn

- Explain the perspectives of both the owner and the operator with respect to dispute resolution
- Use conflict- and dispute-resolution tools to manage conflict arising from the implementation of the management contract
- Use contract negotiations as a tool of asset management
- Calibrate the capital expenditure budget to different ownership requirements and market conditions
- Provide input to the creation of both short-term and long-term capital expenditure plans
- Evaluate capital expenditures and give meaningful input to capital expenditure decisions
- Explain the role of benchmarking in hotel asset management
- Utilize industry-standard tools to benchmark revenues

- Utilize industry-standard tools to benchmark expenses
- Use benchmarking outcomes to ask informed questions about a property's operational results
- Perform risk analysis designed to calibrate risk by magnifying revenue enhancement and minimizing costs according to market conditions
- Make and defend refinancing decisions on a hotel property designed to reduce debt cost and to liberate illiquid equity for more productive investments



Course Description

Hotel asset management is the responsibility of managing the lodging investment to meet the specific objectives of ownership. This course, produced in partnership with the [Cornell School of Hotel Administration](#), introduces the latest asset management techniques and provides a set of practical tools and tactics that owners and asset managers can use to achieve their strategic objectives.

You will learn how to administer and renegotiate management contracts, evaluate capital expenditures and manage their execution, and monitor expenses to reduce costs. You will also learn how to benchmark a property's revenue and expense performance against the market, perform asset risk analyses tailored to current market conditions, and evaluate various refinancing opportunities to reduce debt costs or free up capital for other investment opportunities.



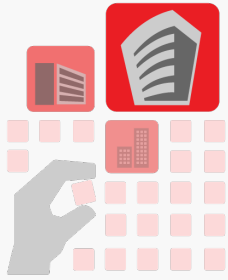
Jan deRoos

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.

[Start Your Course](#) 

Module Introduction: Asset Managing Hotel Management Contracts



Asset managers can use a number of "tactical levers" to help achieve their objectives. Here you consider the first tactical lever, the management contract. Asset managers can use the provisions of the management contract tactically to help meet their goals.

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

- Explain the perspectives of both the owner and the operator with respect to dispute resolution
- Use conflict and dispute resolution tools to manage conflict arising from the implementation of the management contract
- Use contract negotiations as a tool of asset management

Listen: **The Asset Manager's Tactical Levers**

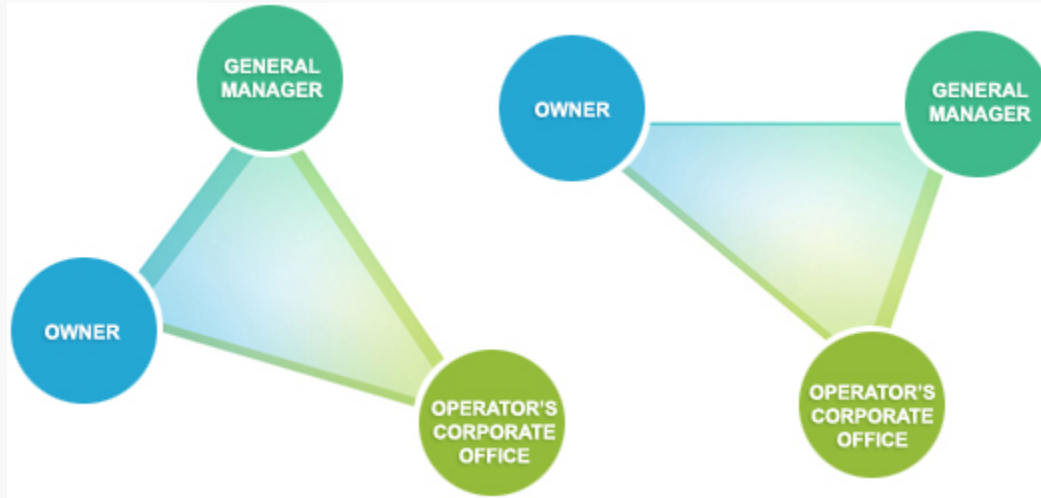
The fundamental problem the asset manager faces is how to improve the performance of individual hotel assets in ways that enhance hotel value. What tools can the asset manager use to address this problem? In this course, you explore the asset manager's five tools, or "tactical levers." The asset manager can use these tools to apply leverage to specific areas of the property's performance.

These tactical levers are the management contract, the capital expenditure decision, benchmarking, risk analysis, and refinancing. Let's look at each in turn. Click the list below to hear Prof. deRoos briefly introduce each tactical lever.

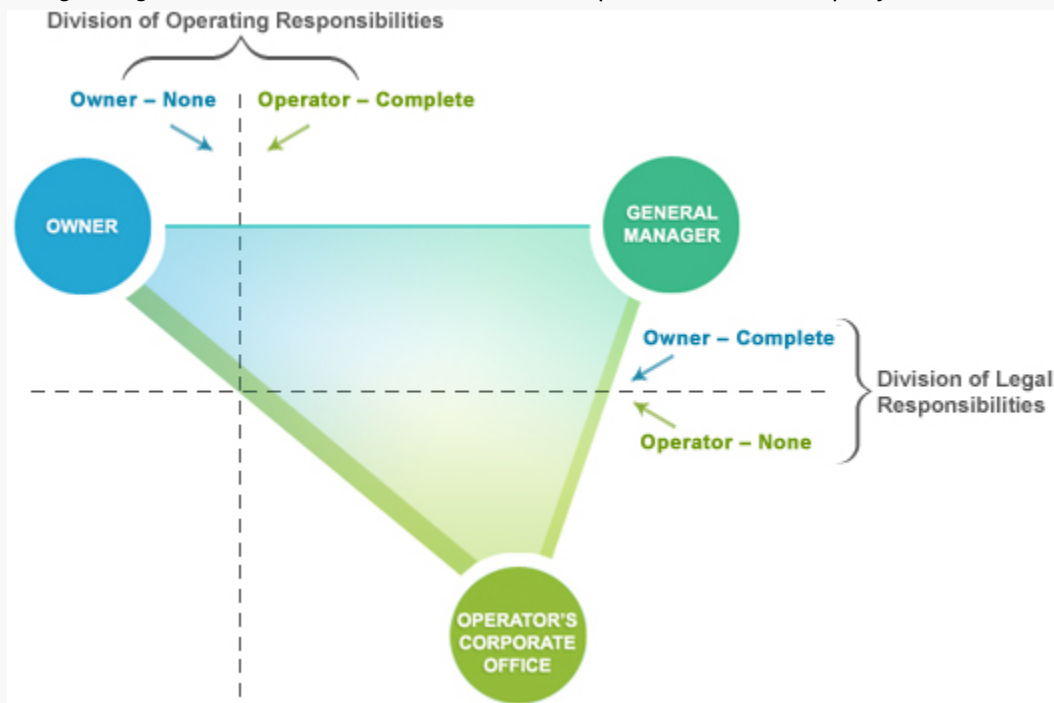


Read: Contract Provisions and the Owner-Operator Relationship

In earlier courses you considered the different ways owners and operators view the relationship between the owner, the operator, and the property manager. To review, as the diagram below on the left suggests, owners view themselves as having a substantial relationship with the property manager. The owners want to diminish the relationship between the owners and the corporate offices of the operators and instead deal directly with the hotel general manager. As shown in the diagram on the right, the operator, on the other hand, envisions a much less substantial relationship between the owners and the general manager, preferring to control the flow of information through the corporate offices.



For owners, the problem is the divide between operational and legal responsibility. Take a look at an elaboration of the triangle diagram that focuses on the contractual responsibilities of each party.



Note that the owner has virtually no operational responsibility. That resides at the hotel and at the operator's corporate offices. But, the owner has all the legal responsibility. In other words, if bad things happen, the owner pays the price, not the operator.

This creates a classic owner's dilemma, one that has driven the emergence and maturity of the asset management discipline. The asset manager's job is to move from this situation toward the one reflected in the following diagram:



The asset manager is trying to create more alignment between the operational and legal responsibility by increasing the scope of the owners' operational involvement. Operators, of course, frequently resist this activity, which they see as an intrusion.

For the asset manager, the challenge is to manage this conflict, and to do so in such a way that the relationship between the owner and the operator serves the owners' interests. The management contract provides the blueprint for the relationship between owners and operators. As such, the asset manager seeks to use the contract as a tactical lever to apply pressure to the operators.

The asset manager does not have a lot of power here. The essence of every management contract is the notion that the operator has the sole and exclusive right to manage the day-to-day operations of the hotel. It usually does not provide the owners with a lot of power to push back against the operators. Thus, the management contract is the weakest of the asset manager's tactical levers.

Nevertheless, the asset manager does need to consider whether the provisions of the contract may provide leverage that can be used in negotiations to influence the operator.



Ask The Expert: Joel Eisemann on Managing Relationships



Joel Eisemann

Executive Vice President
Marriott International, Inc.

Joel Eisemann is the Executive Vice President of Owner and Franchise Services at Marriott International.

Do you have provisions in place for managing disputes with owners?

[Click play to listen](#)

Always include provisions for dispute resolution:

- Arbitration provisions
- Expert resolution
- Marriott rarely use these provisions
- Try to talk through problems to maintain relationships
- Systematic approach to maintaining relationship with owner or asset manager

So what does the account management process look like?

[Click play to listen](#)

- One individual from Marriott acts as point person to work with owner or asset manager
 - Communication point
 - Meet on a regular basis
 - Share information about new systems or programs
- Important because owners and asset managers have one individual in Marriott they can call

How do you structure these account management processes and how do you assign account managers?

[Click play to listen](#)

- Individuals in or near market for smaller accounts

- Individuals from regional or corporate headquarters for larger accounts
- Everybody at Marriott is involved in process
- Solicit owners for regular specific feedback

What conclusions can be drawn from the way Marriott manages owner relationships?

Click play to listen

- Important to have provisions that specifically deal with resolution
- However, the relationship is key - working through the relationship is the best approach



Watch: **Management Contract Conflicts**

An illustrated presentation appears below. Use this resource to enhance your understanding of how conflicts over the management contract can be resolved.



Read: Areas of Owner-Operator Conflict



Obviously, conflict between owners and operators is much more likely when the property is not performing well financially. Poor financial performance usually drives owner and operator concerns. Here you look at the areas of concern on both sides, beginning with the owner.

Let's start with financial considerations, which are usually the root cause of any conflict. If the property is losing money, the owner will need to contribute working capital to the property. The owner needs to know how much working capital will be required, and when it will be needed. Often, additional funds for operations will be shifted from the capital expenditure escrow account, making long-term funding of the escrow an additional financial concern for the owner. If the owner seeks to shift funds from the capital expenditure reserve to the working capital account, operators become concerned that the property will not receive the reinvestment it needs.

The owner's financial concerns then drive a number of operational concerns. If owners are not happy with the financial performance, they seek to more closely monitor operational performance. That is, they want to ensure that the operator is:

- Providing industry-standard levels of customer service
- Allowing the owner access to the property and to records
- Obtaining ownership approval for any policy changes

In the search for ways to improve financial performance, operator performance is one place to look.

Here owners encounter a dilemma. Given dismal financial performance, owners want greater involvement in overseeing the operations. The management contract, however, is usually written to minimize ownership involvement. Management contracts universally contain a clause giving the operator sole and exclusive right to manage without owner interference, and may contain the right to change the hotel manager at their discretion and the right to deviate from the budget when necessary. To increase their involvement in the property, owners seek to work around these provisions.

Finally, given dismal financial performance, owners are often concerned with the fee structure of the contract. Often, the owner is losing money while the operator continues to earn base and sometimes even incentive fees on the property. The owner tries to engage the operator, hoping to convince the operator to address some or all of ownership's concerns. If the operator proves unresponsive, then the owner may seek legal remedies. We will consider this process later in the course.

What about the operator? What are the operator concerns? Again, we'll begin with the financial concerns. Like the owner, the operator wants to make sure that the owner maintains the minimum necessary working capital for the hotel. Operators are always concerned about the owner's commitment to "feed the beast" when the property needs a working capital

injection. Additionally, the operator is concerned that the owner may not pay the management fee promptly. An owner facing financial pressure may choose to delay paying the fees to the operator.

The operator recognizes that the owner is likely to respond to poor performance with pressure for greater operational involvement. The operator wants to limit this involvement. The operator wants to reassert the sole and exclusive right to manage without interference from the owner. The operator wants to maintain control of the hotel manager, even if that salary is paid by the owner. Finally, the operator wants to maintain control of the budgeting process, within the limits set during negotiations.

Clearly, there is room for a great deal of conflict between the owner and the operator concerning the owner's involvement in the hotel's operations. There can also be room for a great deal of negotiation. It is here that the asset manager can seek to use the management contract as a lever to advance ownership interests.



Read: Renegotiation: Realizing Opportunities



So far, contract renegotiation has been presented as a means of dealing with serious problems at the property. But it can also be a way to deal with positive opportunities for the hotel. Both the asset manager and the operator may have any number of good ideas for improving the hotel's financial or operational performance. Many of these can influence the management contract, so the contract may need some renegotiation to reflect the desired changes.

Let's begin by considering some possibilities that might require renegotiation. These might include constructing a new spa, deciding to lease the restaurant, or deciding to expand the number of food and beverage offerings. They might include return-on-investment projects or a significant repositioning of the property. Each of these would probably have a significant impact on management fees and on other contract provisions. Consider, for example, leasing the restaurant. Because the restaurant is now leased, the hotel doesn't receive the restaurant revenue, which would diminish the base management fees. The operator would be reluctant to approve the lease if it didn't include a provision to make the change "fee neutral" to the operator.

Other possibilities might not affect fees, but would affect the rest of the contract. These include, for example, a change in the competitive set, a change in lender, or a change in insurance provider. Each of these may require changes to the management contract.

Contract renegotiation must address the effect of any changes on the management fees. If there is an impact, especially if the proposed changes will probably diminish the management fee, the operator will want to be "made whole." Reaching an agreement on this may require a number of rounds of negotiation. Until the owner and manager commit to good-faith negotiation about the fees, little progress can be made on the impact on the rest of the contract.

Usually, changes to the contract do not require that it be completely rewritten. They can be handled with a memorandum of understanding, compiled by the asset manager, that codifies the new agreement. Over time, if a significant number of memoranda are created, it may make sense to formally incorporate them into a revised contract.

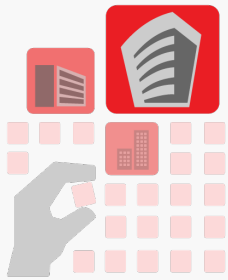
Certain matters may be subject to arbitration, as stipulated in the original contract. Items commonly subject to arbitration are approval of the annual budgets, definitions within the contract, and the operation of the performance clause.

Increasingly, many contracts mandate that all disputes be subject to binding arbitration. In these instances, an arbitrator

would determine any formal changes to the management contract.

Renegotiating a management contract can be an important part of making improvements to a hotel property. The asset manager needs to keep in mind that renegotiation is both a means to an end (designed to facilitate the planned changes), and an end in itself (the asset manager can leverage the renegotiation to achieve other objectives).

Module Introduction: Managing Capital Expenditures



Asset managers can use a number of "tactical levers" to help achieve their objectives. Here we consider the second tactical lever, capital expenditures, examining the capital expenditure budget and exploring how asset managers evaluate proposed capital expenditures.

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

- Calibrate the capital expenditure budget to different ownership requirements and market conditions
- Provide input to the creation of both short-term and long-term capital expenditure plans
- Evaluate capital expenditures and give meaningful input to capital expenditure decisions

Listen: Introduction to Capital Expenditure Planning

Capital expenditures, or Cap Ex, are expenditures that create future benefits. A hotel incurs a capital expenditure when it spends money to preserve or to add to the value of the hotel. By definition, capital expenditures have a useful life that extends beyond the taxable year; capital expenditures are placed on the balance sheet of the hotel as an asset. They show up on the income statement via the annual depreciation deduction. This distinguishes them from maintenance expenditures, which show up on the income statement in the current year as an expense, with no impact on the balance sheet.

What's the asset manager's role in capital expenditure planning? Fundamentally, the asset manager is the voice of the owner. Accordingly, the asset manager's role is to implement the owner's strategic vision for the property. The owner has expectations for the value of the property, the highest and best use of the property, and the return on investment for the property. These expectations come into play when considering the Cap Ex decision. And it is the asset manager who is responsible for ensuring that Cap Ex is implemented consistent with the owner's expectations, not the property manager's.

The asset manager recognizes the moral hazard in Cap Ex. It is the property manager's job to prepare the Cap Ex plan in the short term, say, over a five-year horizon. The question very quickly becomes: whose value gets enhanced-the property manager's or the owner's? In a perfect world, they are identical -there is no conflict, and everyone benefits from Cap Ex. However, the real world is very different, and the owner's and the property manager's interests are rarely perfectly aligned. Regarding the potential conflict, a senior asset manager is famously quoted as saying, "Cap Ex is the battleground for value enhancement." Consider a realistic case in which the answer is different for one party than the other. Click the image below to hear Professor deRoos discuss this example.

As the example suggests, the asset manager must be aware of the costs and benefits that accrue to both the owner and the operator in capital expenditure projects. The asset manager plays a key role in supervising the overall long-term planning by making sure that the property manager's short-term plans are consistent with the owner's long-term vision for the property.

Read: **The Asset Manager's Role**

Capital expenditures can be a source of friction between owners and operators. Asset managers need to be aware of the sources of this friction.

The owner's principal frustrations with capital expenditures are twofold. First, owners often believe the operator takes too much control of the Cap Ex process and invests in items that enhance the brand or operator to the detriment of the owner. Second, owners fear that the operator will lose control of the process and come in over budget.

The operator's principal frustrations with capital expenditures are threefold. First, operators find that owners often have an inconsistent vision of the plan. Asset managers change, and a new asset manager often means a new long-term plan. Second, operators find that the owners do not communicate their Cap Ex vision effectively. Finally, operators contend that owners do not properly fund Cap Ex, to the detriment of the property. This is especially important if the property is not doing well and the Cap Ex is consistently deferred.

Clearly, a good asset manager needs to be aware of both the owner and the operator positions during the Cap Ex budgeting process. Take a look at the chart below to see a helpful summary of the asset manager's role in Cap Ex budgeting. You can click the link below to download a copy of this chart.

[Download](#) a printer-friendly version of the chart.

The Hotel Asset Manager's Role in the Annual Cap Ex Budgeting Process

Step 1: Review property and portfolio objectives with ownership

- Gain alignment on the overall plan for the property.
- Review long-term capital requirements and resources.
- Gain an understanding of any additional owner issues.
- Decide on the format and timing for presenting budgets for approval.

Step 2: Communicate expectations to operators

- Share ownership expectations and property and portfolio objectives to gain alignment.
- Review the format and timing for submitting the budget to ownership.
- Ensure that operators obtain competitive bids.

Step 3: Review and revise proposed budgets

- Conduct a physical inspection and walk-through of the property.
- Review submitted items for consistency with owner expectations.
- Review projected payback and return-on-investment projections as appropriate.
- Recommend changes, deletions, and additions as appropriate.

Step 4: Present final proposed budgets to ownership for approval

- Present management's requests and justifications to ownership.

- Present expected near-term (five- to ten-year) and long-term (ten- to twenty-year) capital needs.
- Reconcile requested near-term Cap Ex budgets with ownership objectives.

Step 5: Present approved budgets to operations for implementation

- Discuss changes, additions, and deletions by ownership.
- Prepare an implementation plan with a timetable and assigned responsibilities.
- Establish a process for monitoring implementation and reporting to ownership.

This chart is adapted from Greg Denton and Deno Yiankes, "Planning and Managing Capital Expenditures." In Paul Beals and Greg Denton (eds.), *Hotel Asset Management: Principles and Practices* (American Hotel and Lodging Educational Institute, 2004).



Read: The Budgeting and Monitoring Process

The asset manager has a role to play in formulating the Cap Ex budget and in the ongoing monitoring of expenditures. Here you briefly consider both.



The asset manager is the central source of information for both the owner and the operator in the budgeting process. The asset manager needs to "communicate up" to the owner regarding the property condition, the life-cycle position of major capital items and systems, the anticipated short- and long-term Cap Ex needs, and the funding needed to execute the plan. The asset manager needs to "communicate down" to the operator the owner's expectations and priorities.

There are additional considerations in the Cap Ex budgeting process. The asset manager needs to:

- Evaluate the reasonableness of operator requests
- Evaluate the thoughtfulness of operator requests (in other words, evaluate the quality of the analysis)
- Consider the importance of the anticipated holding period in determining the owner's objectives
- Consider how economic conditions affect the funds available for Cap Ex
- Consider how returns available from alternate investments might affect the funds available for Cap Ex

The asset manager must take all of this into account and communicate it to the owner and the operator.

Let's take a look at the asset manager's role in monitoring capital expenditures. You begin with monitoring budgeted expenses. This process can be broken down into a series of steps.

1. Assign the work to a team. Simple work is assigned to the operator's staff, whereas more complex work should be assigned to an off-site team (this off-site team may be an owner's team, an operator's team, or a third-party team).
2. Establish a time schedule. This includes both a design phase and a construction phase, and must accurately estimate the loss of revenue-producing areas during construction.
3. Secure funding.
4. Execute the project.
5. Monitor the project via a status report. A status report may look like the following:

Item/Job	Budget	Spent to Date	Anticipated Remaining	Total Expense	Variance to Budget	Date of Completion
Lobby Carpet	\$25,000	\$10,000	\$14,000	\$24,000	(\$1,000)	Sept. 1
Parking Lot	\$10,000	\$12,512	\$ ---	\$12,512	\$2,512	Done Apr. 6
Pool Deck	\$8,500	\$ 4,200	\$4,200	\$8,400	(\$100)	May 20

Note that all budget and cost overruns should be justified. The asset manager should understand the source of the overrun. Was it a poor budget, a change in the scope of work, poor design coordination, an unanticipated code or legal

requirement, weather, or some other "act of God"?

A similar process is used to monitor unbudgeted expenditures. These may be the result of an unanticipated equipment failure, an "act of God," or a true emergency. It is best to establish a discretionary fund for such expenses, with tight control over funding. There should not be a "use it or lose it" mentality attached to such a fund, or the owner will "lose it."



Watch: Near- and Long-Term Planning

An illustrated presentation appears below. Use this resource to enhance your understanding of why you need to plan for capital expenditures over both the near and the long term.

Data from John Brooke and Greg Denton, *CapEx2007: A Study of Capital Expenditures in the Hotel Industry* (Alexandria, VA: Educational Institute of the American Hotel and Lodging Association, 2007).



The Long-Term Cap Ex Plan

As we have seen, effective asset management requires a long-term plan for capital expenditures. The goal is to prepare a 25- to 30-year plan that encompasses the total Cap Ex needed to replace all the fixtures, furniture, and equipment in kind and to reinvest in building infrastructure as the property ages. This means replacing what was in the hotel as constructed, without any additional work. This creates a benchmark for long-term Cap Ex planning and for cash planning. The long-term plan results in a year-by-year, area-by-area summary of the scope and cost of renovations.

[illegible]

The long-term plan is created by:

- Preparing an inventory of all items within the hotel that need to be replaced over the analysis time frame
- Estimating the useful life of each item
- Estimating the cost of replacement at the end of the useful life

Clearly, this is a lot of work, but it is worth it to obtain a defensible, workable, long-term budget.

Click the link above to download a print-friendly version of the Long-Term Cap Ex Plan.

Data from John Brooke and Greg Denton, *CapEx2007: A Study of Capital Expenditures in the Hotel Industry* (Alexandria, VA: International Society of Hospitality Consultants, 2007).



Read: Evaluating Revenue-Producing Projects



How does an asset manager decide which capital expenditures should be approved? The answer differs depending on whether the proposed project is a revenue-producing project, such as a new spa, or a non-revenue-producing project, such as a new dishwasher or heating system. We will consider both, beginning with revenue-producing projects. Asset managers can utilize a number of tools to evaluate such projects, all meant to help calibrate the return on the project and compare it to other proposed projects. Consider the three main methods:

1. Net Present Value (NPV)

This is the preferred tool. It clearly shows the change in wealth produced by an investment. It does, however, have shortcomings.

1. Comparison of alternative projects with different scales can be difficult.
2. NPV requires good knowledge of the cost of capital or the required rate of return.
3. NPV requires that all relevant cash flows be considered.

2. Internal Rate of Return (IRR)

This is a widely used tool. It allows the analyst to compare the IRR to some required rate of return or cost of capital. It also has shortcomings, however.

1. It can produce results at odds with the NPV criterion.
2. With sign changes in the cash flows, an alternative can give multiple IRRs.
3. Which to use, the IRR or the Marginal IRR?

3. Profitability Index (PI)

This is defined as the sum of the present values of the benefits, divided by the initial investment. The PI of the investment below is 1.17.

Year 0	\$ 100	
Year 1	\$ 20	PV of benefits @ 10% is \$117.36
Year 2	\$ 120	

The strengths of the PI include:

1. PI is a direct measure of the value increase per dollar invested.
2. PI is an indicator of risk; for example, a PI of 1.3 implies that benefits are 30% greater than those needed to break even.

The shortcomings of PI include:

1. Is the denominator just the initial investment or the PV of all negative outflows? The modified PI takes the latter approach.
2. The PI is virtually useless for ranking investments of different scale. A PI of 2.0 on an investment of \$100 is very different from a PI of 1.4 on an investment of \$1,000,000.
3. There is little relationship between PI and wealth creation.

In brief, each of the major tools has weaknesses. An effective asset manager must be able to use all three. The best decisions utilize all three tools, interpreting the results according to the strengths and weaknesses of each method.



Watch: **Non-Revenue-Producing Products**

An illustrated presentation appears below. Use this resource to enhance your understanding of how to perform a life-cycle cost analysis to evaluate competing non-revenue-producing projects.



Read: Repair vs. Replacement Decisions



Note: Making capital decisions is an important aspect of managing your assets. The text below gives you an introduction to how to conceptually think about the capital decision; however, the detailed analysis of completing the calculation is not included as part of this course.

The choice between repairing and replacing a piece of equipment is essentially a choice between alternative investments. For the repair vs. replacement decision, the cost of the old asset is the repair cost plus the foregone sale price (or salvage value). Consider the following simplified example, which ignores income taxes. We'll use an equivalent annual cost calculation (EAC) to determine which of two options for an airport van is better for your hotel. Note that the example is unrealistic, because airport vans generally have an expected life of less than five years. The methodology, however, is very solid.

	Used Van	New Van
Inflation	3.00%	3.00%
Operating Costs	\$16,000	\$16,000
Discount Rate	10%	10%
0	\$14,000	\$20,000
1	\$16,000	\$16,000
2	\$16,480	\$16,480
3	\$16,974	\$16,974
4	\$17,484	\$17,484
5	\$18,008	\$18,008
6		\$18,548
7		\$19,105
8		\$19,678
9		\$20,268
10		\$20,876
PV of Years 1–10	\$64,042	\$110,140
NPV	\$78,042	\$130,140
Eq. Annual Cost	\$20,587	\$21,180

You can sell your used airport van today for \$12,000, or you could have it extensively repaired at a cost of \$2,000 and use it for five more years, at which time it would be worthless. A new van costs \$20,000 and would last for ten years, with no salvage value at the end of ten years. Assume that the annual operating and repair costs are identical at \$16,000 (40,000

miles @ \$.40/mile) and increase at 3% per year. The cost of capital is 10%.

- The cost of the old van is the foregone \$12,000 sale plus the repair costs of \$2,000, for a total of \$14,000.
- The PV of the operating and repair costs for five years is \$64,042. Add that to the \$14,000 for a total PV of \$78,042 over the five years.
- Converting the five-year total of \$78,042 into an equivalent annual cost, we solve for the annual payment that would be equivalent to the five-year total, using the cost of capital of 10%. This calculation obtains an equivalent annual cost of \$20,584 per year.
- The cost of the new van is \$20,000.
- The PV of the operating and repair costs for ten years is \$110,140. Add that to the \$20,000 for a total PV of \$130,140 over the ten years.
- The equivalent annual cost for this option is \$21,180 per year over the ten-year life.

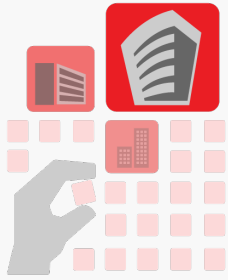
The conclusion: repairing the old van is the better decision, with a lower equivalent annual cost.

Note that many capital investment decisions made by managers involve non-revenue-producing systems. The right decision when replacing roofs, boilers, fryers, vans, and similar items is to minimize the equivalent annual costs of ownership. As with most decisions, good judgment and solid analysis tools are necessary. Part of the judgment needed is to know when to ignore depreciation and income taxes for simplicity purposes, and to economize on analysis effort.

Income taxes and depreciation can be ignored when one or more of the following apply:

- The investment is small relative to the capital investment budget.
- The tax life is short (less than six years), as is the useful life of the investment.
- Marginal tax rates are under 20%.

Module Introduction: Benchmarking Hotel Performance



As you have seen, asset management is about bringing leverage to bear on a range of issues. Here you consider the asset manager's third tactical lever, benchmarking, as you examine how asset managers go about benchmarking revenues and expenses.

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

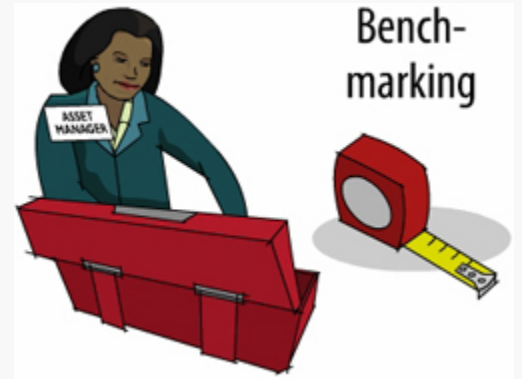
- Explain the role of benchmarking in hotel asset management
- Utilize industry-standard tools to benchmark revenues
- Utilize industry-standard tools to benchmark expenses
- Use benchmarking outcomes to ask informed questions about a property's operational results



Read: The Role of Benchmarking

Your goal as an asset manager is to increase the value of the hotel. This is very difficult to do consistently unless you have a systematic understanding of the hotel's performance, both historically and against similar competitors. In other words, the asset manager must benchmark the hotel's performance against the competition and against itself. The purpose of benchmarking is to answer these questions:

- Were we good or were we lucky?
- Is our success due to the quality of our execution, or did we merely benefit from a strong market?
- Or, conversely, were we bad or were we unlucky?
- Are our struggles due to inefficient or incompetent operations, or do they have more to do with external conditions?



Asset managers help increase the hotel's value by (1) using external, market-based information to determine a hotel's proper market position, and (2) using internal, property-specific information to uncover opportunities to gain incremental revenue and to improve expense control. Benchmarking revenues and expenses helps improve the hotel's performance in both areas, increasing the hotel's net income and thus its value.

How do asset managers benchmark? In general, they use two tactics, comparative analysis and variance analysis. In comparative analysis, you evaluate the subject property relative to other hotels in the local or regional competitive set. In other words, you measure your performance against the competition. In variance analysis, you perform a longitudinal comparison of the hotel's performance today to its prior performance. In general, you benchmark revenues against the hotels in the local or regional competitive set. You benchmark expenses against industry-wide standards or norms.

The benefits of benchmarking include better budgets and improved operations. Benchmarking helps to generate a set of focused questions informed by a thorough quantitative and qualitative review of operations. Proper benchmarking can support the property's efforts during the annual budget and review cycle. Thus, benchmarking done before the annual budgeting process is much more valuable than benchmarking done once budgets are complete. The benchmarking process itself identifies problems in a systematic fashion and helps to focus the efforts of the management team. It is important to remember that benchmarking is not an end in itself, it is a means of improving performance and increasing value.



Read: Benchmarking Revenues

Note: Benchmarking revenues is an important aspect of managing your assets. The discussion below gives you some insight into this process, but it is necessarily high-level given the scope of this course.

To properly benchmark revenues, there are two requirements. First, you need a series of metrics to accurately assess hotel revenue performance. Second, you need a properly selected set of competitors in your market to compare to your property using the revenue metrics. Here you consider the set of metrics.

Proper benchmarking is all about the application of data, so successful benchmarking depends on the quality of the data. For this reason, the metrics used, and the definitions used to construct them, are crucial. Let's take a look at the three industry-standard metrics.

These metrics seem very straightforward: we assess hotels in terms of occupancy, rate, and RevPAR. See the chart for a simple example.

Hotel Du Monde

Illustration of Occupancy, Average Daily Rate, and RevPAR Calculations

	Day 1	Day 2	Day 3
Rooms Available	500	500	500
Rooms Occupied	350	400	375
Room Revenues	\$34,000	\$41,000	\$32,000
Occupancy	70.00%	80.00%	75.00%
Average Daily Rate	\$97.14	\$102.50	\$85.33
RevPAR	\$68.00	\$82.00	\$64.00

See citation for information on metrics

It is worth considering, however, how these numbers are defined. Look at the numerator for average occupancy percentage, "total occupied rooms." Does this include complimentary rooms (or "comps")? The Uniform System stipulates that occupancy calculations should include comps; what managers want to know is the percentage of rooms that were occupied, whether they generated revenue or not. For our ADR calculation, on the other hand, the denominator is "paid rooms occupied" (or "rooms sold"), not "total occupied rooms"; the difference is that "paid rooms occupied" excludes comps. Managers want to know the average amount paid for the rooms that actually generated revenues.

Finally, let's look at RevPAR, revenue per available room. The first definition offered, while frequently used, is not a good measure. The reason is that you come up with very different numbers depending on whether you calculate RevPAR by the day, the week, or the month. There is too much movement in the metric depending on the measurement period. The second measure is far more exact, and it is the preferred method according to the Uniform System.

But here again, definitions matter. The RevPAR metric is based on total available rooms. Does this include rooms that are out of order? Are they available? Including out-of-order rooms in the available rooms number changes the overall calculation. It is important that any benchmarking exercise use data generated using definitions that are the same across properties and across time.

Here is a more complicated and realistic table, illustrating the difference some of these adjustments make.

Hotel Du Monde

Illustration of Occupancy, Average Daily Rate, and RevPAR Calculations

	Day 1	Day 2	Day 3	Three Day Average
Rooms in Hotel	500	500	500	1500
Out-of-Order Rooms	0	5	15	20
Rooms Available	500	495	485	1480
Rooms Occupied	350	400	375	1125
Complimentary Rooms	0	4	6	10
Paid Rooms Occupied	350	396	369	1115
Gross Room Revenues	\$34,000	\$41,000	\$32,000	107,000
Room Refunds	\$0	\$100	\$100	200
Net Room Revenues	\$34,000	\$40,900	\$31,900	106,800
Occupancy	70.00%	80.00%	76.08%	75.34%
Average Daily Rate	\$97.14	\$103.28	\$86.45	\$95.78
RevPAR	\$68.00	\$82.63	\$65.77	\$72.16
Occupancy	Three-day results incorrectly calculated as averages.			75.36%
Average Daily Rate				\$ 95.63
RevPAR				\$ 72.13

See citation for information on metrics

We will use occupancy, ADR, and RevPAR to benchmark hotel revenue performance. Keep in mind that the data are only as good as the assumptions that determine their content.

Metrics by *Uniform System of Accounts for the Lodging Industry*, 10th edition (Lansing, MI: American Hotel and Lodging Association Educational Institute, 2006).



Read: Establish the Competitive Set

With our metrics in place, the next step in producing useful benchmarking data is to establish a competitive set for the property. What hotels make up the direct competition for your hotel? One way to arrive at a competitive set is to ask this question: if your hotel were to burn to the ground tomorrow, where would your customers probably stay?

Establishing a good competitive set is vital to producing valuable revenue benchmarks. As always, the conclusions will only be as reliable as the quality of the initial data.



Let's consider the Hungerford Hotel in the Charlotte market of North Carolina. The hotel is now open, and Chris Trotman, the asset manager, needs to benchmark the hotel's performance. How does he determine which hotels to include in the competitive set? Should he consider all the hotels in the Charlotte area? Only those he can see from the roof of the Hungerford? How about all the hotels within a five-mile radius? Maybe he should include all of the branded properties in the market?

Clearly, none of these make good benchmarking competitive sets. If he includes the total market, the sample is too large, but including only immediate neighbors would be too small. How does he determine an appropriate group?

First, he knows he can exclude luxury and economy hotels, neither of which compete with the Hungerford. Second, he knows he needs to include independent hotels that compete for the same customer base, not just branded hotels.

Chris should work with property management, taking advantage of their knowledge of the local market. He should also use additional sources of information, including:

- The property's annual marketing plan
- Primary market analysis, including the asset manager's assessment of competing hotels based on tours and on interviews with major demand generators
- Existing appraisals, market studies, and feasibility studies for the property

An excellent evaluation would include a comparison of:

- Physical characteristics (including programmatic metrics, conditions of improvements, effective age of improvements, amenities)
- Brand or franchise affiliation
- Location relative to major demand generators
- Operating history (mostly top line)
- Market segmentation

- Quality of management
- Impact of new competitors
- Interviews with major demand generators

Once Chris has collected the necessary information and made the relevant comparisons, he should have a list of five to ten properties that he considers the Hungerford's competitive set. These would be the properties most directly comparable to the Hungerford in terms of size, market segmentation, and location. He is now ready to position the Hungerford in comparison to these competitors.



Read: Positioning the Property



Garrison Keillor likes to describe the mythical "Lake Wobegon" as a place where "all the children are above average." Hotel managers share a similar tendency to describe their properties as "above average" in everything. Few hotels, however, can beat the competition on both occupancy and rate. Good benchmarking means accurately measuring hotel performance against the competition. Once you have established the competitive set, you are ready to more precisely position the subject hotel against your competitors.

Relative position is universally determined by the following penetration ratios. These measure your hotel performance against the competitive set:

ADR Penetration Index	=	$\frac{\text{Property ADR}}{\text{Competitive Set ADR}}$
Occupancy Index	=	$\frac{\text{Property Occupancy Percentage}}{\text{Competitive Set Occupancy Percentage}}$
RevPAR Index	=	$\frac{\text{Property RevPAR}}{\text{Competitive Set RevPAR}}$
Transient Demand Index	=	$\frac{\text{Property Transient Demand}}{\text{Competitive Set Transient Demand}}$

In all of these indexes or ratios, the denominator may or may not include the subject property, depending on whether you want to know how the property performs against all hotels or only against the competition.

Note that if the competitive set is truly "competitive," every property will have a RevPAR penetration of 1.0 (or 100%). This is difficult, if not impossible, to achieve in the real world, because creating a competitive set is difficult and because perfect competition does not exist. The relative advantages and disadvantages of competitors influence RevPAR penetration, as will recent market trends.

Typically, we define the competitive set and then use five to ten years' worth of data to establish the historical penetration rates. These rates then become the starting point for benchmarking. The data are usually derived from the STAR report, a benchmarking report available from Smith Travel Research. The STAR report is the industry standard benchmarking tool. We'll consider it next.



Watch: **STAR Report**

An illustrated presentation appears below. Use this resource to enhance your understanding of how to use the STAR report to facilitate benchmarking.



Read: **Making Comparisons**

Once you have the benchmarking data from the competitive set, you can compare them with your performance. Here we have, in chart form, a sample income statement report comparing a subject property with benchmark, competitive-set properties. Again, it is broken down by department, and shows the comparisons using our benchmarking metrics, percentage of revenue (PER), per available room (PAR), and per occupied room (POR). Note that if the revenues comparison is negative, your revenues are lower than those of the competition, and you have benchmarked poorly against the competitive set; if the number is positive, you benchmark well. On the other hand, if the expenses are positive, your expenses are higher than those of the competitive set, and you have benchmarked poorly. If they are negative, you benchmark well.

Let's look at the data ¹:

**VARIANCE - SUBJECT VS.
BENCHMARK PROPERTIES (%)**

REVENUES & EXPENSES	Dollars	Ratio to Revenue*	Per Available Room/Year	Per Occupied Room/Day
Revenues				
Rooms	1.8	5.2	0.1	(0.1)
Food	(25.7)	(5.4)	(26.9)	(27.1)
Beverage	(20.5)	(0.8)	(21.8)	(21.9)
Telecommunications	(26.4)	(0.7)	(27.6)	(27.7)
Other Operated Departments	96.2	2.4	93.0	92.6
Rentals & Other Income	(45.5)	(0.7)	(46.4)	(46.5)
Total Revenues	(6.1)	0.0	(7.6)	(7.8)
Departmental Costs & Expenses				
Rooms	(9.1)	(2.6)	(10.6)	(10.7)
Food	(32.8)	(7.8)	(33.9)	(34.0)
Beverage	(1.9)	11.2	(3.5)	(3.7)
Telecommunications	(45.3)	(12.7)	(46.2)	(46.3)
Other Operated Departments	89.5	(2.4)	86.4	86.0
Total Costs & Expenses	(18.5)	(5.5)	(19.8)	(20.0)
Total Operated Departmental Income	2.8	5.5	1.1	0.9
Undistributed Operating Expenses				
Administrative & General	(9.9)	(0.3)	(11.4)	(11.6)
Marketing (Includes Franchise Fees)	0.4	0.5	(1.2)	(1.5)
Property Operation & Maintenance	(10.3)	(0.2)	(11.7)	(11.9)
Utility Costs	13.1	0.8	11.3	11.1
Other Unallocated Operated Departments	(100.0)	(0.1)	(100.0)	(100.0)
Total Undistributed Expenses	(3.4)	0.7	(5.0)	(5.2)
Income Before Fixed Charges	7.1	4.8	5.3	5.1
Management Fees, Taxes, & Insurance				
Management Fees	(34.4)	(0.9)	(35.4)	(35.6)
Property Taxes & Other Municipal Charges	(53.6)	(2.0)	(54.4)	(54.5)
Insurance	13.6	0.2	11.8	11.5
Total Management Fees, Taxes & Insurance	(37.4)	(2.6)	(38.4)	(38.5)
Income Before Other Fixed Charges	20.3	7.4	18.3	18.1

Note that the subject property's revenues are under those of the benchmarked properties. Total revenues are 6.1% below the benchmarked properties, PAR is 7.6% under, and POR is 7.8% under. Bad news. But note also that the expenses are way under those of the benchmarked properties. This looks much better. If you look down toward the bottom, to the Income Before Fixed Charges, the property benchmarks very well over all.

The takeaway for the asset manager? They are doing very well on controlling expenses. They should be encouraged to take steps to increase revenues, especially since they are likely to flow through very efficiently, given the hotel's current performance.

¹ Sample *Benchmarker Report* courtesy of the Hospitality Research Group at PKF Consulting.



Read: **How to Benchmark Expenses**

Benchmarking expenses involves comparing the amount your hotel spends on various expenses to what the industry as a whole spends on the same expenses. The key to successful benchmarking, therefore, is making proper comparisons. You must make "apples to apples" comparisons. Here again, the Uniform System of Accounts for the Lodging Industry (USALI) provides guidance for the standard measurement of expenses in the U.S. and much of the world.

At times, adjustments must be made to facilitate comparison. The only way to make proper adjustments is to thoroughly understand the USALI and the subject hotel's system of accounts, at the line-item level of detail. This is a tedious task, to say the least, but it is necessary. According to the USALI:

- Complimentary rooms are a marketing expense
- Credit card commissions are charged to the administrative and general account
- Reservation expenses are a rooms department expense
- Frequent-traveler-program expenses are a marketing expense
- Repairs and maintenance are never allocated to a revenue-producing department

How do you measure your expense performance for purposes of comparison? The three most common metrics for comparing line items are as follows:

Dollars Per Occupied Room (POR)	=	$\frac{\text{Total dollar amount of line item}}{\text{Occupied rooms at hotel for the period}}$
.....		
Dollars Per Available Room (PAR)	=	$\frac{\text{Total dollar amount of line item}}{\text{Total rooms available daily at the hotel}}$
.....		
Percentage of revenue (PER)	=	$\frac{\text{Total dollar amount of line item}}{\text{Total (or departmental) revenue}}$

Using these measures gives you a defensible basis for comparing your hotel to the industry. It allows you to identify your strengths and to target departments that need improvement. Note that expense benchmarking is intimately tied to the budget cycle. Benchmarking needs to be completed before the annual budget is approved or the benefits are greatly diminished.



Tool: HOST Report



Download the Tool

[The HOST Report, Printable Version](#)

Click to view the HOST Report

Category	Actual	Budget	Variance
Actual Expenses			
Rooms	\$1,125,000	\$1,125,000	\$0
Food & Beverage	\$1,125,000	\$1,125,000	\$0
Other	\$1,125,000	\$1,125,000	\$0
Total Actual Expenses	\$1,125,000	\$1,125,000	\$0
Budgeted Expenses			
Rooms	\$1,125,000	\$1,125,000	\$0
Food & Beverage	\$1,125,000	\$1,125,000	\$0
Other	\$1,125,000	\$1,125,000	\$0
Total Budgeted Expenses	\$1,125,000	\$1,125,000	\$0

Good data are essential to useful expense benchmarking. Here you can explore a HOST report prepared by Smith Travel. Reports such as these are excellent sources of data on a competitive set for your property.

Click the link on the right to download a print-friendly version of the HOST Report.

Data from "Custom HOST Report -2005 Full-Service: Sample HOST Report," Smith Travel Research, 2008.

Read: Variance Analysis

Although much of the work in expense benchmarking involves comparing your property to other properties, it is also essential to perform a self-benchmarking or variance analysis. Such an analysis measures the changes in various measures of the property's historical performance. This is especially necessary to determine the effect of changes made to improve the property. The focus is on determining trends and on determining if operational decisions have measurably influenced performance.

**Sample Line-Item Variance Analysis—
Energy Expense Through June of the Current Year**

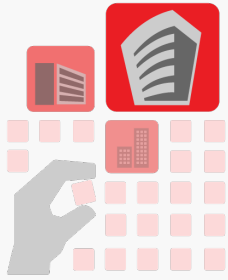
Historical Financials	% Revenue	POR*	PAR*	% Change
Year 5	3.7%	\$6.58	\$1,697	
Year 4	3.7%	\$6.85	\$1,647	-2.9%
Year 3	4.0%	\$5.84	\$1,692	2.7%
Year 2	4.5%	\$6.48	\$1,951	15.3%
Year 1	3.9%	\$5.12	\$1,500	-23.1%
Budget Year 0	4.0%	\$5.00	\$1,490	-0.7%
YTD Year 1	3.6%	\$5.11	\$1,400	
YTD Year 0	3.6%	\$5.10	\$1,550	10.7%

* Industry practice defines POR as Per Occupied Room per day, a dollar figure.
PAR is defined as Per Available Room per year, also a dollar figure.

In this case, the property budgeted a small decrease in energy costs for year 0 compared to last year. But they have seen a 10.7% year-to-date increase per available room. The PAR and POR metrics both indicate that the hotel is probably doing okay. Why? Because the % Revenue and POR columns remain in line with previous years. It appears that the increase in energy expense per available room is due to an increase in occupancy. The property is spending the same amount per occupied room and as a percentage of revenues, although overall spending is up.

In summary, benchmarking is a means, not an end. Good benchmarking results in a series of questions that can only be answered through a thorough understanding of the property. It is especially valuable for an off-site asset manager. It informs conversations with the property manager, directing the asset manager to questions that need to be answered.

Module Introduction: Risk Analysis and Refinancing



The previous tactical levers-the management contract, capital expenditures, and benchmarking-have all centered on the practical details of daily operations. Our last two levers, risk analysis and refinancing, involve a "higher order" consideration of how to increase the value of the hotel investment.

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

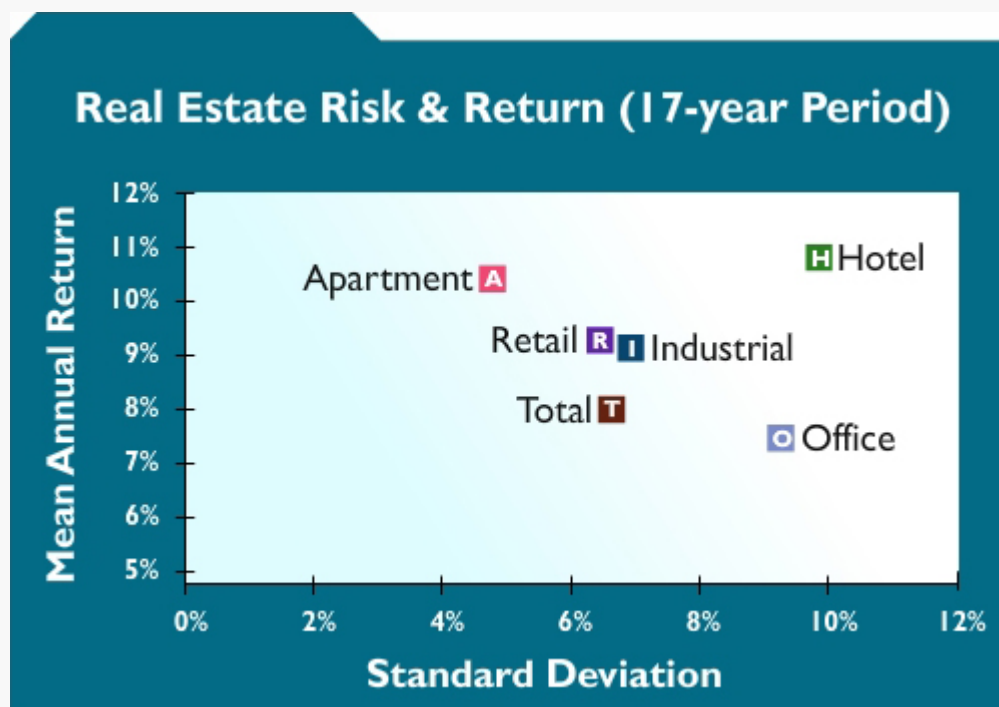
- Perform risk analysis designed to calibrate risk by magnifying revenue enhancement and minimizing costs according to market conditions
- Make and defend refinancing decisions on a hotel property designed to reduce debt cost and to liberate illiquid equity for more productive investments

Read: **The Importance of Risk Analysis**



The tactical levers we have considered so far (the management contract, capital expenditures, and benchmarking) all involve the asset manager working "down in the trenches," evaluating, negotiating, and administering various aspects of the property's performance. Here we turn to the first of the higher-level tactical levers, risk analysis.

In general, the vast majority of investors are risk-averse. They seek to avoid, or more accurately, to minimize, the risk component of their investments. They are usually willing to pay for that risk reduction. This means that the ability to understand and to neutralize risk brings value to investors. It is important to remember that hotels are risky investments. As the chart below shows, hotel returns have higher standard deviations than any other real estate class.¹



Understanding and managing risk, therefore, is an important part of asset management.



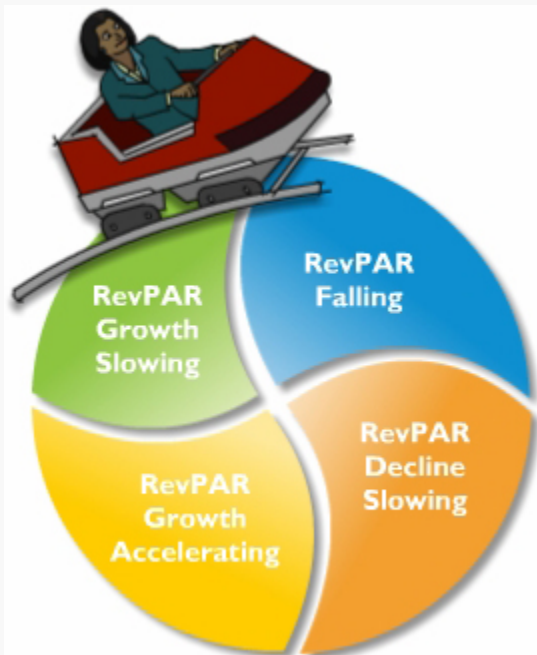
Consider a small town in upstate New York. The town is growing, but it has no hotel. There are local bed-and-breakfasts, and hotels in a larger college town 15 miles away, but no lodging is available in the town itself other than the few rooms at the bed-and-breakfasts. A local businessman wants to build the town's first budget hotel, a ValuLodge. He has a great sense of the possibilities in the market and is reasonably confident that the hotel can succeed. But it is a \$2 million hotel, requiring an equity investment of \$700,000. This is the largest investment he has ever made.

The prospective investor does the preliminary financial analysis and determines that he can expect an IRR of 20.6% on the equity investment. That is a great return, and increases his confidence. Nevertheless, he wants to produce a thorough risk analysis. What are the chances that he will realize this return? What is the best-case scenario? What is the worst? Specifically, if things go badly-maybe the town loses an important employer, competition draws away demand, or the regional economy slides into recession-how much of his \$700,000 equity contribution is at risk? A good risk analysis will give him the answers to these questions.

¹ Data from the NCREIF Property Index.

Read: **Strategies for Risk Management of Individual Assets**

As you learned earlier, hotels are riskier investments than other forms of real estate, such as offices, retail space, or apartments. Hotels typically have more volatile cash-flow streams than other types of real estate. This makes sense, because hotels react far more rapidly to local, regional, and national business cycles. This accounts for both the higher returns hotels provide and their magnified risk.



To manage this increased risk, the best asset managers use a set of tactics that can allow the property to "ride the cycles." This means finding ways to magnify revenue enhancements during the "fat" part of the market cycle when demand increases are driving revenue growth. For example, aggressive revenue and distribution channel management can produce substantial revenue gains if a hotel sells out several days per week. Conversely, it means adopting procedures or making changes to minimize costs during the "thin" part of the cycle when demand shrinks. In general, this involves detailed analysis of staffing levels and expense controls, along with the ability to make tough choices. Managing the business risk of the property is an important means of reaching the asset manager's goal of increasing the overall value of the property.

Asset managers can also work with owners to manage financial risk. This involves proactively taking advantage of financial leverage. The optimal level of debt depends on the point in the cycle. When riding up, increasing the loan-to-value ratio by adding debt can magnify equity returns. When riding down, decreasing the loan-to-value ratio by retiring debt enhances the probability that the deal will continue to be worthwhile. Structuring debt to allow a quick, low-cost prepayment is part of proper asset management. We explore these measures in greater detail when we consider refinancing.

To implement strategic policies that minimize risk, asset managers need a strong understanding of the specific levels of risk a property faces. They need a set of tactics to manage risk. We turn to those tactics next.



Read: Risk Analysis Techniques



At some level, all risk analysis techniques are subjective. You are trying to bring a level of certainty to a realm that is fundamentally uncertain. But some techniques are less subjective than others. Here we evaluate the usefulness of several of them.

Let's begin with the risk-adjusted discount rate, using the weighted cost of capital. This is a standard finance method, and it appears to be straightforward. Let's take a simple example. You are borrowing 50% of the capital for an investment. The debt capital costs 6%, while the equity capital costs 10%. The weighted cost of capital is the average of the two: 50% of 6% plus 50% of 10% equals 8%, so the weighted cost of capital is 8%. Project cash flows are discounted at 8% to estimate their value to the firm.

Using standard decision tools, if the NPV is positive after discounting at the weighted cost of capital, the project adds value to the firm. The problem? How do you determine the cost of debt capital? Is it the historical cost of debt on the balance sheet? Or is it the cost of debt going forward, which might be higher or lower than the historical costs? How do you determine the cost of the equity capital? Is it the return that capital could earn investing it today? Is it the return earned on investments over the previous five years? Or is it the cost of equity capital if the firm succeeds with its current investment opportunities?

A second method is risk-adjusted cash flows. Here, you estimate the cash flows, taking a sort of "bad things might happen" approach. If the NPV or IRR is still acceptable after adjusting for these "bad things," then proceed with the investment. This is a very suspect methodology, especially when combined with the risk-adjusted discount rate. If you adjust the cash flows down and then discount them at a risk-adjusted discount rate, you adjust for risk twice and end up with an extremely conservative investment philosophy.

Both of these methods are intuitive. You can also use a number of more analytical methods, beginning with certainty equivalents. Here, you try to assign probabilities to different events, the number of probabilities being finite, to arrive at a certainty equivalent. This method is useful if you can specify the probabilities with some certainty. Otherwise, it is very difficult. Actuarial workers make heavy use of certainty equivalents, because their large databases generate accurate probability distributions.

A further refinement of the certainty equivalent is the decision tree. Here you build a "tree" of different possibilities,

employing an "if this, then that" method. You then assign probabilities to each of the branches. This is often used in litigation, but is of limited use in hotel asset management.

Finally, we can consider a number of scenario analysis techniques. Simulation is the best and most widely used. It is a very solid method. Basically, you specify the probability distributions for a range of variables or inputs for a model. We will look at this technique in greater depth when we consider the Monte Carlo simulation.

A more basic version of simulation is a sensitivity analysis. Here you consider changing one or two inputs at a time, then measure how sensitive an item is to changes in the inputs. For example, what happens if the average rate falls? What happens if occupancy increases dramatically? This method has obvious limits, because situations in which only one or two variables drive changes are rare.

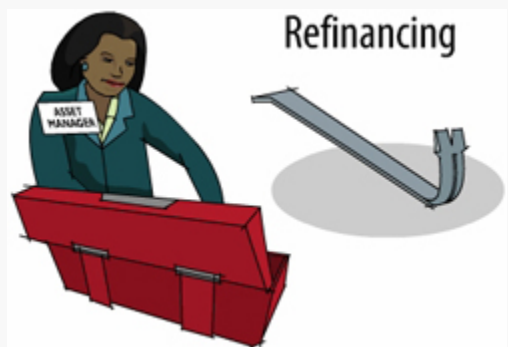
You can also use more than one form of scenario analysis. This is a "best case/most likely/worst case" scenario analysis. Here you can change multiple variables in an effort to determine what the best, worst, and most likely outcome is, given these changes. The output of this exercise places lower and upper bounds on the analysis and is useful in framing risk. The difficulty is in specifying with any certainty the changes that are likely in a best-case or worst-case scenario.



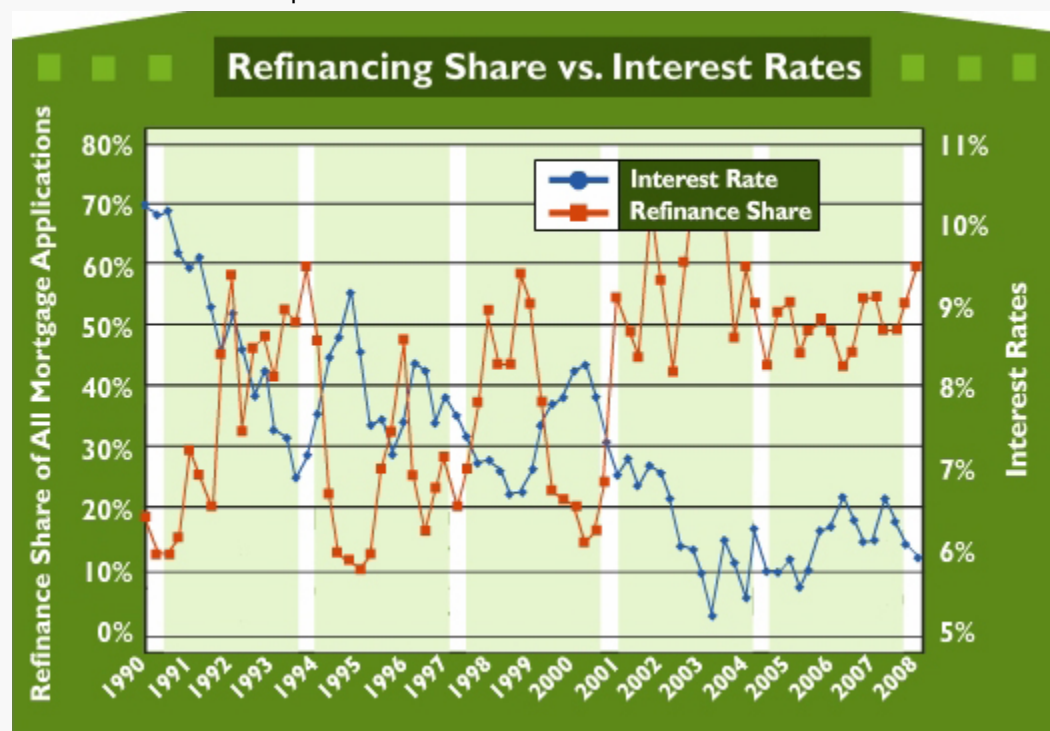
Watch: **The Monte Carlo Simulation**

An illustrated presentation appears below. Use this resource to enhance your understanding of how simulations can specify investment risk and inform investment decisions.

Read: Introduction to Refinancing



We arrive now at the last asset management tool we consider in this course, the refinancing decision. The decision to refinance a property may seem rather straightforward: if interest rates decline, you should consider refinancing. And data back up the relationship: when interest rates decline, the number of refinanced mortgages increases, and when interest rates increase, the number of refinanced mortgages decreases. This residential refinancing volumes chart (below) nicely illustrates the relationship. Data comes from Freddie Mac.



The use of refinancing as an asset management tool is more complicated, however, than this simple relationship suggests. First, you need to be able to determine when lower interest rates make refinancing financially rewarding. Second, there are other ways to use debt to achieve the investment goals of ownership. Increasing the debt on a property through refinancing can be used as a risk-shifting device; it can be used to increase the capital available for other investments; it can even, as we shall see, be used strategically to take advantage of the lending climate.

Consider this quote:

[L]enders do not currently give much consideration to the true riskiness of the market within which a particular mortgage is underwritten. They tend to develop a general set of terms (rate, term, amortization, ratios) and then to apply these terms pretty evenly across all markets and, in a slightly less dogmatic fashion, to all property types [lodging

is an exception, with 1.0%-3.0% higher interest rates and shorter amortization in most cases]. An understanding of the actual differences in market risks can be very helpful to a borrower [who can select the most appropriate assets from his or her] portfolio and place debt (with the embedded put option) on its riskier assets. It can reduce its exposure to the assets more likely to present problems through the cycle.

This is a remarkable statement. The author is arguing for adding debt to riskier projects, with the knowledge that defaulting (the "put" option) can pay financial dividends. The statement deftly illustrates the creative ways in which you can use debt to meet investment goals.

The asset manager's job is to use debt creatively to meet the investment goals of ownership. Refinancing can be a tactical lever that asset managers use to help achieve these goals.

Quote from Susan Hudson-Wilson, "Leverage in a Private Equity Real Estate Portfolio." Chapter 8 in Susan Hudson-Wilson (ed.), *Modern Real Estate Portfolio Management* (New Hope, PA: Frank Fabozzi Associates, 2000).



Read: The Principal Reasons to Use Debt



Here we consider the principal reasons to use debt as an asset management tool. They are:

- Use debt to increase the total return of individual assets. This is the most straightforward reason, straight out of basic real estate texts. Nevertheless, you need to meet two important conditions to produce the desired result. First, you need a positive spread between the cash-on-cash yield of the property and the mortgage constant. Second, you need the mortgage balance to be below the property value. During the "down" portion of the real estate cycle, the spread may disappear as cash flows fall or property values drop. Either case effectively reduces the total return of the leveraged portfolio (or worse, decreases one's wealth).
- Use debt to hedge the downside risk of an investment. The use of the default option allows investors to use leverage as a stop loss, or hedging device. To illustrate: An investor holding an unleveraged asset at the top of the cycle has three options:
 - Hold the asset without adding debt, even though there is more downside risk than upside potential.
 - Sell the asset and harvest any increase in value since acquisition.
 - Place debt on the asset and partially harvest the value increase.

If investors choose to place debt on the asset, they gain a valuable option to default if the asset value falls below the mortgage balance. Note that there are serious consequences for defaulting, which you must consider before using this strategy.

The exercise of the "put" option hedges the loss. In addition, placement of debt to achieve a "partial sale" is much less costly than an outright sale. Upon recovery, the investor can participate in the recovery without having to rebuy the asset, avoiding search and acquisition costs. The use of debt in this fashion can be an excellent way to deliver superior returns to a market timing strategy.

- Add debt to individual assets to enhance the diversification role of real estate in the portfolio. Here you use debt to "short-out" the debt-like behavior of real estate and more closely capture the equity-like behavior of real estate. Leverage improves the correlation relationships between real estate and stocks and bonds (it makes the correlations more negative-a good thing). The behavior of real estate becomes more exposed to the real estate cycle as you add leverage. Obviously, this strategy is especially valuable for those who own real estate for its diversification benefits.



For all of these reasons, there is no question that adding debt makes the remaining flows to individual assets riskier (more volatile). But there is a very big "however"-you can add debt to a low-risk investment and boost the volatility to the same level as a different average-risk investment. Given positive leverage, increased return is the reward. This strategy can be used in the portfolio: add debt to the low-risk assets in a way that the risk of the portfolio does not rise above the desired level.

Also, debt applied at the bottom of the cycle (assuming one can time the cycle) is much less risky than debt applied at the top of the cycle. The existence of a well-developed short-term debt market allows one to use this product to enter and exit the debt markets efficiently and cost effectively to manage individual asset and portfolio risk.

The information here is adapted from Susan Hudson-Wilson, "Leverage in a Private Equity Real Estate Portfolio." Chapter 8 in Susan Hudson-Wilson (ed.), *Modern Real Estate Portfolio Management* (New Hope, PA: Frank Fabozzi Associates, 2000).

Read: Refinancing Tactics

As we have noted, real estate investors are generally risk-averse. It can be challenging to convince them of the benefits of using debt, but you can provide a powerful demonstration. Consider an investor who is reluctant to use debt creatively because of the fear of additional risk. She is very willing to make new hotel investments with a 75% loan-to-value ratio (LTV); that is, she is comfortable with the risk of a new investment that is 75% leveraged. As the asset manager, your job is to convince her of the benefits of refinancing and increasing the debt on the existing properties in the portfolio.

She has owned some of these properties for a number of years, and they may have LTVs as low as 30% or 40%; this occurs as the owner pays down the principal of the mortgage and as property values increase. If the owner sees a 75% LTV as an acceptable risk for a new investment, then adding debt to these other properties and increasing the LTV from 30% or 40% to 75% should seem relatively safe. By increasing the debt, the asset manager frees up equity that can be used to fund other investments.



The investor must answer several questions before deciding how to use debt:

- What are the purposes of using leverage?
- Is the default option useful (that is, is the debt recourse or nonrecourse debt)?
- Is debt used to finance a portfolio of assets or individual assets? If the investor seeks portfolio-level debt, the process becomes more complex, but it can be used to harvest significant equity with one transaction.
- What are the preferred terms (term, rates, prepayment flexibility, covenants)?
- Who is responsible for sourcing and managing the debt origination process?

A few stories illustrate how to address these questions.

We have an investor who wants to enhance returns but doesn't want to limit the impact of leverage on the portfolio risk. She would:

- Evaluate the current portfolio risk and set a level of tolerable increased risk
- Evaluate which assets could benefit from leverage
- Evaluate the portfolio effect of adding leverage to these assets and redeploying the proceeds
- Evaluate the effect of leverage and the incremental investments on the portfolio return (a carefully executed strategy could result in an increased portfolio return without adding incremental portfolio risk)

Or consider an investor concerned about the impact of certain assets at their market peaks. He would evaluate leverage as an alternative to an outright sale and use the default option to hedge downside risk. He would:

- Identify markets that are highly volatile
- Identify assets in this market that are at their peak
- Place high LTV, nonrecourse mortgages on these properties
- Redeploy the proceeds in new assets chosen to preserve the portfolio's desired risk and return characteristics

Finally, we have an investor seeking additional diversification from real estate. She would:

- Apply low LTV portfolio-level debt to the entire portfolio
- Redeploy the proceeds to make acquisitions that further enhance the diversification of the portfolio

As you see, different investors have different reasons for refinancing; however, the underlying strategy is to replace unharvested equity with debt and redeploy the equity in more productive ways.



Watch: **Reducing Costs or Cashing Out**



Download the Tool

[Refinancing Decision Spreadsheet](#)

An illustrated presentation appears below. Use this resource to enhance your understanding of when to refinance a hotel investment.

This presentation employs a simple spreadsheet. Click the link above to download the spreadsheet and use it to follow the calculations in the presentation. It is also a handy tool for evaluating refinancing possibilities.



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. We now have the tools necessary to achieve the asset management objectives for a hotel property. Successful asset management requires both a strategic vision and the skills to implement that vision. You should now have the skills necessary to use the management contract, capital expenditures, benchmarking, risk analysis, and refinancing to better realize the investment goals of hotel ownership.

I wish you the best in all of your endeavors, and all of your hotel investments. It's been my pleasure preparing this material for you. Please feel free to contact me in the future if you have any questions or have any comments about the courses, or about your hotel investments.

Good luck and best wishes.

Stay Connected

Supplemental Reading List

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

"Hotel Asset Management: Principles and Practice" (2004) - Beals, Paul, and Gregory Denton

Educational Institute of the American Hotel and Lodging Association (eds.)

A "how-to" book, containing solid, practical advice. New edition in 2008.

"The Negotiation and Administration of Hotel and Restaurant Management Contracts" (1988) - Eyster, James J.

3rd ed.

The classic reference, with a new edition by deRoos & Eyster in 2008.

<http://www.hamagroup.org> - Hospitality Asset Managers Association

The association for professionals dedicated to the enhancement of hotel and hospitality assets.

"Modern Real Estate Portfolio Management" (2000) - Hudson-Wilson, Susan

Frank J. Fabozzi Associates (ed.)

A technical treatment of real estate portfolio strategies and tactics, well grounded in modern finance theory.

[Hotel Investments Handbook](#) - Rushmore, Stephen, Tarras, & Ciraldo

(See especially Appendix 3.) Freely available for download.

This is the classic hotel investment treatment. Thanks to the authors for placing this in the public domain.

