Chapter 8
Minimizing the Cost of Capital in Hotel Investments

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ABSTRACT

In this book chapter, we introduce the readers to typical sources of hotel financing using a hypothetical case-study. First, we provide a commentary on various types of funding sources. We provide rationale for why a particular surplus unit specifies certain constraints to an (investment) manager. A discussion is offered on various factors that may lead to a certain mix of financing. We walk the readers through various steps of the optimization process. Finally, we provide a case study on optimizing the funding sources using the SOLVER function in MS Excel.

BACKGROUND

Investing in a hotel involves a big-ticket transaction. From a few million to over a billion US Dollars has been the range of hotel prices observed in recent years. The hotel investment community comprises of a large set of players: high net-worth individuals, boutique partnerships, REITs, pension funds, private equity funds and hotel brands to name a few. The amount of funding required in such projects is significant. Often, financing such assets becomes a complex business problem. Traditionally, a number of cash-surplus entities are selected to pool-in the capital necessary for the acquisition. Also, such investments tend to be highly leveraged. In other words, a large amount of debt capital is combined with equity to meet the amount required for acquisition. Cash-surplus units (individuals, organizations, firms or governments) offer a broad range of financing alternatives to the investor with various maturity terms, conditions, priority for repayment and, of course costs. What a capital-surplus unit expects as return from her capital is a cost to the cash-deficit
unit which is raising the capital. A critical consideration is to minimize the overall cost of capital resulting from the return expectations of the surplus units. A non-optimal capital structure could lead to failure of an acquisition project whereas the acquisition with an optimal financing mix could increase the shareholder wealth. The investment management problem involves

1. Addressing a set of constraints imposed by the surplus units, and
2. Allocating the overall cash required towards various surplus units such that not only the constraints are met, but the weighted average cost of capital (WACC) is minimized as well.

Mathematically, solving the minimization problem requires knowledge of differential calculus. Most managers simplify the challenge by resorting to user-friendly, GUI-driven software such as SOLVER.

INTRODUCTION

In the discounted cash flow (DCF) method, an investment project is valued based on its cash flow generating potential. First, future cash flows (FV) are forecast. Second, for each future cash flow projection, an equivalent present value (PV) is calculated. The PV signifies how much cash the firm must invest today, at its expected rate of return (R), which will grow to the estimated FV in future. Finally, net present value (NPV), the sum of all PV’s in excess of the initial investment is calculated. If the NPV equals zero, the future cash flows exactly meet the expected return requirements. A positive NPV implies value-enhancement whereas a negative NPV is considered value-corroding. In the DCF method, a required rate of return is (R) estimated to “discount” the FV to a smaller, equivalent PV. Therefore, this rate is called the “discount rate.”

A firm can create value for its shareholders as long as the yield from a project exceeds costs. Therefore the discount rate, on average, should meet the return requirement of capital providers: creditors as well as owners. What the capital-providers expect as their “return” on the capital they finance is effectively the cost to the project. Therefore, the total R is also called “weighted average cost of capital,” (WACC). Lower the WACC, higher the perceived value of a project, for a given set of cash flows. This chapter describes various sources of capital available to hotel investment projects and how to structure the capital in order to minimize the WACC.

WACC is often based on an assumption that most hotel investors use a combination of debt or equity capital. Beyond the expected return (“cost of capital”) of capital providers, the capital structure of the project (the proportion in which various types of capital are raised for a project) is critical to determining its WACC.

The expected return for any capital provider typically depends on current capital market conditions (e.g. stock returns and interest rates) and the capital provider’s respective risk in the project. An investment manager signs different types of contract with different capital providers. Depending on the nature of contract, the same project may imply different risk-exposure to various capital providers. Thus, in order to estimate the cost of their capital, firms first need to determine the cost of each financing source they select to use. Second, they must identify the optimal financing mix of funding sources. A WACC which meets all constraints stemming from these contracts, but is minimized poses an optimization challenge.