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Article

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VALUATION OF FINANCIAL LEASE CONTRACTS

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I. INTRODUCTION

THIS PAPER PRESENTS a formula for evaluating financial lease contracts. We use it to solve the firm's lease vs. borrow problem, and to examine the economic rationale for leasing. The formula is derived from the objective of maximizing the equilibrium market value of the firm, with careful consideration of interactions between the decision to lease and the use of other financing instruments by the lessee and the lessor. The analysis applies the "adjusted present value" methodology developed by one of us in another paper [10].

Leasing has attracted so much scholarly attention that it is impossible to say anything totally new about it. Our approach is similar to that of Schall [13], although we take it further than he does. Our conclusions mostly support those presented by Bower in his excellent review article [2]. We do claim to provide a more complete and rigorous analysis than was provided by these and other writers.[1] Moreover, we go on to fresh questions, particularly, "Why do firms lease?"

The lease valuation formula is derived in the second section of the paper. The formula is useful and interesting in several respects. First, it is simple and easy to use, even in cases where the lease contract does not displace debt on a dollar-for-dollar basis. The decisionmaker need only discount the after-tax lease payments and depreciation tax shields at an adjusted discount rate r^*, which is calculated from Modigliani and Miller's formula for the weighted average cost of capital. Second, the formula solves simultaneously for the value of the lease contract and the value of the "equivalent loan"—that is, the value of debt displaced by the lease.

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This paper combines the main results of two previous papers, [1] and [9]. In their early work on [1], Bautista and Dill used an Adjusted Present Value approach (see [10]) to analyze several actual lease contracts. Although tantalizing insights emerged, these analyses were somewhat cumbersome and difficult to generalize. Eventually Meyers derived the "exact" solution, which Bautista and Dill used in [1]. This solution is described in [9], a working paper prepared for seminars at the London Graduate School of Business Studies and the European Institute for Advanced Studies in Mangement in February 1975.

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