

Tenant Management and Lease Valuation for Retail Properties: A Real Options Approach¹

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In this paper, we formulate a tenant management problem for retail properties, such as shopping centers, provide an analytical framework for deriving the probability distribution of the sum of discounted future cash flows stochastically generated through tenant management, and find an optimal lease agreement structure and strategy for tenant-replacement management. More specifically, we formulate the problem of valuing the net present value of future net income from a retail property with tenant management and provide a valuation model for management decision making. The income fluctuates with market rent variations and management processes. In our framework, a property manager is required to choose an optimal mix of fixed rent and variable rent linked to tenant sales, and one of two tenant-replacement rules for return and risk enhancement. Finally, we provide an optimal strategy for this problem using Monte Carlo simulation, through which we value the real options of adopting an optimal strategy for percentage rent and tenant replacement made available by the New House Lease Law in Japan.

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