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# Real options and the theory of foreign direct investment

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## Abstract

We extend applications of real options theory to foreign direct investment (FDI) research regarding choice of location and choice of market entry mode under uncertainty. Our study is motivated by the regional configuration of multinational enterprises (MNEs), as well as observed deviations from the stages model in internationalization theory. We shed light on these issues using real option modeling and computer simulations. The results suggest that from the standpoint of pursuing business opportunities and generating real options, building a subsidiary in a nonhome region could be more beneficial than in a home region. However, high option exercise cost may reduce the option value of a nonhome-region location. Our models also imply that choice of entry mode depends on the *magnitude* (high vs. low) and the *type* (exogenous vs. endogenous) of uncertainty. When uncertainty is high and endogenous, MNEs may prefer high-commitment entry modes because they contribute to the reduction of uncertainty and provide valuable growth options. © 2007 Elsevier Ltd. All rights reserved.

*Keywords:* FDI theory; Market entry mode; Option modeling; Real options theory; Regional location

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## 1. Introduction

It has been recognized in international business (IB) that uncertainty, which often exposes multinational enterprises (MNEs) to unfavorable conditions or favorable

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