The Envelope Theorem
in its Proper Perspective

by

Emmanuel Drandakis

Athens University of Economics and Business

Abstract

The Envelope theorem is shown to involve comparisons between the performance of the optimal policy and that of alternative policies, which satisfy the constraints of the problem and may also have other features. The theorem is activated whenever parameter values are such that the extreme value function is reached by the value functions of such policies; it produces tangency and curvature results for variations in any parameter entering the objective or the constraint functions of the problem.

The proposed perspective frees the theorem from all problems besetting its presentation in the literature; more importantly, it offers possibilities for extending its scope well beyond its usual setting.