

**Caren Sureth (2000)**

**The influence of taxation on partially irreversible investment decisions – A real option approach**

*University of Bielefeld, Faculty for Business Administration and Economics,  
Discussion Paper No. 462*

Abstract:

Real option theory is mainly applied in tax-free models either using dynamic programming or contingent claims analysis. In contrast to dynamic programming contingent claims analysis enables to model an endogenous market rate of return and thus risk averse investor behavior. The author investigates the effect of taxation on the properties and results of the real option approach under risk neutrality. She examines whether the real option approach allows deducting general results on the influence of taxation on investment decisions of risk averse investors. She uses the hedge portfolio approach and studies the resulting investment rules for completely irreversible investment decisions under risk neutrality with and without taxation. Furthermore the model is extended to partially irreversible investment decisions. Finally, the author discusses the applicability of the real option approach on investment of risk averse investors in a tax setting.