

# An Uncertainty-driven Theory of the Productivity Slowdown: Manufacturing

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## Abstract

This paper presents a theory of the productivity slowdown based on the effects that uncertainty has on the productivity of specialized capital. Uncertainty reduces the efficiency of inflexible capital and generates a slowdown. It also increases the demand for flexible capital which retains its productivity in the new volatile environment. The increase in the share of flexible capital explains the acceleration of the rate of productivity growth embodied in new capital observed by McHugh and Lane [1987]. This fact is difficult to explain by the theories that emphasize the cost of implementing the new technologies as the cause of the slowdown. The model also highlights the positive effect that uncertainty has on the speed of diffusion of technologies, and on the rate of technological progress. These relationships are successfully tested in manufacturing and are used to explain the rapid diffusion of computers and the spectacular TFP growth rate of the computer producing sectors.

JEL: D2, D8, D9, O3.

Keywords: Productivity Slowdown, Uncertainty, Specialized Capital, Flexibility.

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