

CTIER

SEMINAR SERIES

December 2025



DATE

December 10th, 2025

TIME

5.00-6.00 p.m.



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The Rising Returns to R&D: Ideas Are not Getting Harder to Find

Abstract: R&D investment has grown robustly, yet aggregate productivity growth has stagnated. Is this because “ideas are getting harder to find”? This paper uses micro-data from the US Census Bureau to explore the relationship between R&D and productivity in the manufacturing sector from 1976 to 2018. We find that both the elasticity of output (TFP) with respect to R&D and the marginal returns to R&D have risen sharply. Exploring factors affecting returns, we conclude that R&D obsolescence rates must have risen. Using a novel estimation approach, we find consistent evidence of sharply rising technological rivalry and obsolescence. These findings suggest that R&D has become more effective at finding productivity-enhancing ideas, but these ideas may also render rivals’ technologies obsolete, making innovations more transient. Because of obsolescence, rising R&D does not necessarily mean rising aggregate productivity growth.