

Productivity Paradox Revisited: A nonparametric stochastic frontier analysis for the ICT-performance nexus in the United States

Wednesday 8th June 2011, 1pm
(Refreshments provided from 12:45pm)

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Venue: Stewart Mason Building, SMB103

Book your place: For catering please email [Amany Elbanna](mailto:Amany.Elbanna@lboro.ac.uk).

Abstract:

Although there exists volumes research on the impact of ICT (Information and Communication Technology) on recent economic and/or productivity growth, there seems to be little consensus on the empirical relevance of ICT spillovers outside ICT-producing industries.

By employing a non-parametric stochastic frontier framework based on the spline concept, we explicitly examine how the ICT's direct and indirect impact on TFP (total factor productivity) is related to the economic growth of US in 24 ICT-using industries. From ICT-as-a-new-GPT prospective, we argue that for positive ICT'S role to actually take place, the length of negative return on ICT investment and ICT-using sectors' capacity to learn from the embodied new technology are crucial. Our findings show that measured TFP should rise in ICT-using sectors, but it takes a learning period with appropriate complementary co-invention for the new ICT-capital to become effective and its gains to be realized.