

Spillovers, Linkages, and Productivity Growth in the US Economy, 1958 to 2007

Topic:

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I speculate that technological spillover effects may have become more important over time as information technology (IT) penetrated the US economy. The rationale is that IT may speed up the process of knowledge transfer and make these knowledge spillovers more effective. Using US input-output tables for years 1958 through 2007, I compare my new results with Wolff and Nadiri (1993) covering years 1947-1977 and Wolff (1997) covering 1958-1987. I estimate that the direct rate of return to R&D is now 22% and the indirect rate of return to R&D is 37%. The former is higher and the latter has a higher significance level than in the previous studies. Separate regressions on the 1958-1987 and 1987-2007 periods and the addition of successive periods to the sample also suggest a strengthening of R&D spillovers between the 1958-1987 and 1987-2007 periods. These results suggest a strengthening of the R&D spillover effect over time.