

Il Dipartimento di Economia Organizza il Seminario

HETEROGENEITY OF TECHNOLOGY-SPECIFIC R&D INVESTMENTS. EVIDENCE FROM TOP R&D INVESTORS WORLDWIDE

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Abstract:

In this work, we develop and apply a methodology to estimate technology-specific R&D investments at the firm level and then use these to test some arguments that have become central in the innovation literature. In particular, we first combine R&D investments with patent data from the world top R&D investors worldwide and show that investment per patent varies greatly both across technologies and across firms developing the same technology. We then use the estimated firm-technology R&D investments to assess how these are related to the international and technological strategies of firms. The estimation strategy makes use of a multilevel framework that allows us to model heterogeneity both at the firm and sector level. In line with the literature on the sectoral systems of innovation, we find that sector specificities matter in determining R&D per patent investments, economies of scale in knowledge production, and the cost of (further) specialization. However, we also show that specific firms' knowledge strategies contribute to the heterogeneity of R&D investment per patent. Accounting for (un)observed heterogeneity would lead to better policy design and management decisions.

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La partecipazione è aperta a tutti gli interessati