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Title: **An improved theoretical ground for the linear feedback model and a new indicator\***

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### **Abstract**

This paper describes a lucid theoretical ground for the linear feedback model proposed by Blundell et al. (2002) and further proposes the indicator on the initial knowledge storage in the framework of the linear feedback model. The values of the indicator are calculated with the estimation results conducted by Blundell et al. (2002). Further, the GMM estimations of the linear feedback model are conducted by using the stationarity moment conditions customized to needs of count panel data, in order to calculate the values of the indicator.

JEL classification: C23; C25; O30

Keywords: linear feedback model; knowledge production; initial knowledge storage; patents-R&D relationship; GMM

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