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Les défis de développement pour les villes et les régions dans une Europe en mutation

Innovation, appropriation, and new firm formation in European regions

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S10- Intellectual property and regional development: innovation, proximity and smart specialization

Résumé / Summary

To what extent do incumbent innovation and appropriability strategies foster or discourage local entrepreneurship? On the one hand, incumbent firms will aim to shield knowledge from direct rivals and potential entrants in order to increase appropriation (Belderbos & Somers 2015; Bloom et al. 2013). On the other hand, uncertainty, information asymmetries, and high transaction costs inherent to knowledge induce divergent views as regards its value, which may create new business opportunities for third parties (Malerba 2007; Christensen 2012; Acs et al. 2009). Due to tacitness of knowledge (Polanyi 1966) spatial proximity determines to a large extent the direction of entrepreneurial search and selection (Kogut & Zander 1992), while geographical proximity is important for the discovery and exploitation of new entrepreneurial opportunities (Van Oort et al. 2013; Boschma 2005).

Although regional innovation by incumbents is seen as an important source of entrepreneurial opportunities, empirical results to date have been mixed (Knoben et al. 2011; Tsvetkova 2015; Jofre-Monseny et al. 2011). Knowledge externalities may occur in the same or closely related industries (Glaeser et al. (1991) - following the notion of agglomeration due to Marshall (1920), Arrow (1971) and Romer (1986)- , or they may occur due to knowledge diversity across industries (Jacobs,1970), with so far s little conclusive evidence on the most salient spillover mechanism (Beaudry & Schiffauerova, 2009).

The current paper aims to shed new light on these issues by contributing an analysis of the antecedents of new firm formation across regions and industries in Europe. We examine the differential impact of knowledge produced locally on new firms' formation depending on technological relatedness, knowledge diversity,

appropriability strategies, and market rivalry between incumbents and new firms. Our research utilizes a unique and detailed dataset combining information on firm formation (ORBIS), patenting (PATSTAT) and trademarks (national trademark registries of 12 EU member states) and we analyse new firm entries (2000-2009) in over 300 NACE (4 digits) manufacturing industries in more than 1000 European regions (NUTS 3 level).

We distinguish local knowledge stocks (measured by patent activities) in the industry of the entrant from local knowledge stocks in technologically related industries, using a technology similarity index based on patterns of patenting in the same IPC subclasses by firms active in different industries (e.g. Jaffe 1986). Appropriability strategies are captured by the trademark holdings of incumbent firms. Preliminary results confirm a positive effect of incumbents' patent stocks on new firm formation in related industries, whereas the impact of incumbent patenting in the industry of the entrant is negative. Diversity in knowledge stocks in the region also has a positive influence on new firm formation, but this influence is smaller than the influence of related industry knowledge. More intensive trademark policies by incumbents reduce new firm formation and negatively moderate the effects of local knowledge stocks. The findings are consistent with the notion that new firms avoid head-on competition with incumbents but may benefit from their innovation activities in exploiting new market niches.

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