Spillover from the Haven: Cross-border Externalities of Patent Box Regimes within Multinational Firms

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Abstract

This paper analyzes externalities of patent box regimes in Europe. Tax cuts in foreign affiliate locations of a firm that require no nexus to benefit from these reductions reduce the user cost of capital by providing a profit shifting opportunity and thereby increase domestic investment. We test this mechanism for the case of research activity. By combining information on patents, firm ownership and specific characteristics of patent box regimes, we show that patent box regimes without nexus requirements for tax-efficient reallocation of patent profits induce positive spillovers within multinational groups. The implementation of a patent box in a country where one of the foreign affiliates of a firm resides, increases domestic research activity by about 2 percent per implied tax rate differential. Evaluated at the sample average, this result implies that the implementation of a patent box in a foreign affiliate location increases R&D activity from about one patent every three years to about one patent every one and a half years. Furthermore, our findings suggest that patent boxes generate negative spillovers on average patent quality. This has important implications for international tax policy and the evaluation of patent box regimes.

Keywords: empirics

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