

## **Foreign multinationals in services sectors: A general equilibrium analysis of Brexit**

Topic: Modelling the effects of Brexit II

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Research question: We provide an in-depth analysis of the role of services Multinational Enterprises (MNEs) in international trade and their impact on the economy, with an application to Brexit.

Method used: First, we deliver the latest data on the so-called "servicification" of economies, especially focusing on trade (e.g., Borchert, 2016; Miroudot, 2017). Then, we provide a literature review focusing on the difference between the impact of services MNEs and the ones in manufacturing. Finally, we illustrate the importance of services MNEs for the UK in a general equilibrium simulation analysis of Brexit.

The data used: Our analysis is mainly based on GTAP 9 Database (Aguiar et al., 2016). The model includes 11 regions, 21 sectors and four types of production factors. Potential tariff rates between the EU-27 and UK are calculated using the external applied MFN tariffs of the EU from TRAINS for 2015 as well as trade flows for 2014. Non-tariff barriers to trade are taken from Dhingra et al. (2017) and to FDI in services from Jafari and Tarr (2017).

Novelty of the research: We apply an innovative computable general equilibrium (CGE) model, which combines the state-of-the-art trade theory with firm heterogeneity à la Melitz with foreign MNEs in services. We pay particular attention to how Brexit affects the performance of European and British MNEs and how this contributes to the overall losses of the UK economy. We find that the increased FDI barriers in services sectors explain about one third of the total welfare loss of Brexit. Furthermore, our decomposition analysis (by introducing each type of barriers separately) shows that the barriers against EU services multinationals in UK are harmful to British manufacturing sectors because they face a reduced (and more expensive) supply of intermediates of services.