

Free Trade Agreements: Land Cover and Development at the local level

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Abstract

Despite consensus among economists about the benefits of freer trade, conclusive evidence of the sources for sectorial discontent amongst heterogeneous nations, remain unclear. Most previous research about the effect of trade liberalization on economic output has focused on the national level. To our knowledge, this is the first systematic, global study with a subnational emphasis. We study Free Trade Agreements' (FTA) effect on local economic development in 170 countries during the 1992-2013 period. By evaluating grid cells of different sizes, 111 Km² and 55 Km², we apply a difference-in-difference identification strategy and focus on the comparison of local economic output between areas of FTA with and without specific land characteristics. As local level data on gross domestic product is non-existent, we proxy it with night-light emissions. Since our main FTA indicator does not vary sub-nationally, we interact it with information drawn from raster layers of land cover, which classify lands as croplands, urban areas, water bodies, bare spaces, etc. By the comparison between areas under FTA with and without specific land properties, we control for unobservable time-invariant characteristics that may influence the selection of trade agreements' locations. Similarly, to control for heterogeneous effects of FTA among and within countries, we use country-year fixed effects, and sector-oriented differential analyses, respectively. Our preliminary results show evidence of a positive effect of FTA on the agricultural sector, and a negative effect on both the manufacturing and services industries. These results might hint an explanation as to why processes of social discontent towards free trade have developed.

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