

the majority of US firms in the tradable goods sector do not export. Eaton, Kortum and Kramarz (2004) find that only 17.4 percent of French manufacturing firms export. Bernard, Jensen and Schott (2005) find that, among those firms that do export, much of the activity is concentrated in a relatively small number of firms—81 percent of US trade is accounted for by the top 1 percent of firms that trade. It is important to put keep these numbers in perspective. It is not just international borders that inhibit exporting: many firms sell only in a very localized market within their own country as well. In one of the most detailed studies of the effects of distance on shipping, Hillberry and Hummels (2005) use establishment-level data on manufacturing shipments within the U.S. They find two key results. First, the major impact of distance on shipments occurs within a very small radius of the establishment location. Shipments within a zip code region (roughly a four mile radius) are three times higher than outside the same region. And they find that there is a huge decline in shipments as distance increases up to about two hundred miles, but not much decline after that. That is, the effect of distance on shipping is highly nonlinear. Second, they find that the major reason for the decline in shipments as distance increases is that the number of establishments shipping commodities falls with distance, and the number of commodities a given establishment ships falls.

These results are important for a number of reasons. First, they are relevant for studies of the border effect, and suggest that the cost of shipping over borders may be biased upward in studies using aggregate data. For example, previous studies have found high levels of state-level home bias—suggesting that there may be state level border effects within the US. Hillberry and Hummels show, however, that the state-level home bias effect disappears when computing measures of distance using 5-digit zip codes. This is because of the nonlinear effect of distance on shipments. Most of the trade friction due to distance occurs within a very short radius of the establishment and so cannot be explained by border effects.