

The Quality of Distance: Quality Sorting, the Alchian-Allen Effect, and Geography

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Either quality sorting or the presence of a specific cost (the so-called Alchian-Allen effect) is considered to be the main mechanism underlying the positive relationship between product quality and the distance to market. However, the reduced-form regressions found in the literature generally fail to reveal which of these mechanisms is (or even whether both are) the main driving force. In this study, we employ unique Japanese individual goods price data to identify separately the effects of quality sorting and specific costs. Our empirical analysis shows that high-cost producers produce high-quality goods, as suggested in Baldwin and Harrigan (2011). Furthermore, the condition that the quality-sorting mechanism accounts for the purported positive link between quality and distance is relaxed with specific costs compared with the case of an iceberg specification. We also identify overestimation of the technology parameter that relates production costs to quality in the absence of specific costs. On this basis, we argue that while the quality-sorting mechanism exists, there is bias in its predictions when not considering specific costs. Moreover, we find that the specific cost components in trade costs are more distance-elastic than any ad-valorem components, a finding qualitatively consistent with the trade cost specification in Hummels and Skiba (2004). Finally, our results are robust with respect to various measures of distance and specification.