

The Slow Growth of New Plants: Learning about Demand?

(with Lucia Foster (Bureau of the Census) and Chad Syverson (University of Chicago Booth School of Business and NBER))

Abstract

Many studies using business-level microdata have documented large size average differences across plant ages. New businesses tend to be much smaller than their established industry competitors. This size gap also closes slowly, taking well over a decade on average. We show that even for producers of commodity-like products, these patterns are not driven by productivity gaps. New plants are just as technically efficient as, if not more than, older plants. They are small in spite of their prices, not because of them. The patterns instead appear to be linked to differences in demand-side fundamentals. New plants start with a considerable demand deficit and only slowly erase it over time. ~~At~~ If they survive at all. We document patterns in plants' idiosyncratic demand levels and explore the sources of their variance across plants and growth rates within them. We estimate a dynamic model of plant expansion in the presence of a "demand accumulation" process (e.g., building a customer base) that allows both passive accumulation over time and active accumulation related to plants' past production decisions. We find evidence that the slow growth of new plants is largely accounted for by the slow, active accumulation of endogenous "customer capital". Our results point to the importance of accounting for demand-accumulation processes in settings - such as those found in the industrial organization, trade, and macro literatures - where producer entry drives innovation, productivity gains, and economic growth.