Dynamic Entry and Exit with Uncertain Cost Positions

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Abstract

We study the dynamics of entry and exit based on firms' learning about their relative cost positions. Each firm's marginal cost of production is its own private information, thereby facing ex ante uncertainty about its cost position. The (inelastic) market demand can accommodate only a fraction of firms to operate, and thus only firms with relatively lower costs are viable in the long run. Some firms in the market will exit if excessive entry (or overshooting) occurs. We derive the unique symmetric sequential equilibrium. The equilibrium properties are consistent with empirical observations: (i) entry occurs gradually over time with lower cost firms entering earlier than higher cost firms, (ii) exiting firms are among the ones that lately entered (indeed in the last period). Moreover, equilibrium overshooting probability is shown to be always positive and decreasing over time.