

Abstract

This thesis provides a bridge between two strands of efficiency literature. As we describe in the first part, the theory of efficiency is generally focused on equilibrium and mild deviations from it. In contrast, empirical studies document large variations in efficiency that are persistent in real economies.

We describe two theoretical concepts as driving forces behind fluctuating performance of companies. Firstly, efficiency is derived from competition and is dynamic by its nature. As production happens in time, changing supply and demand conditions induce the necessity to continuously adjust production processes. These changes are implemented under conditions of uncertainty, which directly leads to regular inefficiencies, implying that out-of-equilibrium situations are normal rather than rare. Secondly, standard models typically rely on price exogeneity to separate technical and allocative components of overall economic efficiency. We point out that this assumption is likely to fail due to extreme heterogeneity of the units of analysis. We elaborate in detail on the significance of heterogeneity in efficiency models, especially the heterogeneity of capital. As a result we demonstrate how various combinations of heterogeneous assets imply further swings in efficiency.

We show that integrating both phenomena into theoretical models provides reconciliation between the hitherto static view of efficiency and empirical studies reporting wild efficiency fluctuations. We further emphasize that the heterogeneity and time dimensions of production make the measurement of pure technical efficiency almost impossible in most applications. Instead, we propose to focus on monetary measurement of economic efficiency. We argue that this approach directly accounts for issues of heterogeneity and provides an empirical approximation of the profit function, which is the basic decision criterion of the entrepreneur.

The empirical part of the thesis provides applications of the proposed non-parametric, money-metric efficiency measurement to Czech and British small and medium-sized enterprises. In these studies we were most interested in the relationship between economic efficiency and size measured by number of employees. Our results confirm the large spread of efficiency scores, with mean efficiency ranging from 25% to 75%. While Czech industrial sectors show a positive impact of company size on efficiency, widening the sample to all sectors including services in the British case leads to a negligible negative effect which is not economically significant.

Keywords: economic efficiency; heterogeneity; profit function; small enterprises

JEL classification: D24; L25; L26; B53