

## **Sunk Costs, Market Structure And Welfare (Abstract)**

This paper addresses the fundamentals which determine the relationship between market structure and welfare. While policy making is often guided by the suggestion that high concentration likely affects welfare negatively, theory suggests two different possible effects of market concentration. Structuralist views posit that low firm numbers enhance the likelihood of collusion and reinforce market power, to the detriment of welfare. Conversely, efficiency views hypothesize that high concentration is the natural result of individual cost differentials, enabling firms with productivity advantages to gain market share. Although game theoretical models have established a simultaneous and endogenous relationship between concentration and profitability, empirical studies have failed to identify broad statistical regularities, in the sense that some concentrated industries seem dominated by negative market power effects, while others display prominent efficient features. This paper identifies a set of fundamental determinants, common to all industries, upon which varied combinations of market structure, market power and productivity are derived. This carries relevant policy implications, since new instruments are devised with the ability to uncover dissimilar welfare effects in the presence of identical concentration features.

A general equilibrium model is developed with both exogenous and endogenous fixed costs. Exogenous setup costs require sufficient market power to generate enough net profits to break even. Endogenous fixed costs, embodied in technical innovation and/or advertising, create that market power. In this model, they enable the firm to affect consumers' willingness to pay, while at the same time making each good less substitutable with respect to competitors. Welfare is affected in a dual manner, depending both on the number of available varieties and the range of social preferences they cover. Any structural cost change that discourages market entry is traded-off against larger production scales for the remaining varieties. The novelty here is that the opportunity cost associated with variety loss is now variable, being larger the higher the level of product heterogeneity that arises from the endogenous differentiation investments made by firms.

*Ceteris paribus*, mechanisms based on exogenous fixed costs are consistent with structuralist views, associating strong concentration to added market power and negative welfare effects. However, excessively low setup costs and deep market fragmentation hinder investments in differentiation, also producing undesirable welfare outcomes. Conversely, changes in endogenous sunk cost parameters induce a negative correlation between market concentration and market power. Higher endogenous cost parameters increase differentiation outlays and discourage market entry. These results confirm that structural indicators, such as concentration indices, are not a sufficient statistic for welfare evaluations. Identical market features may conceal different cost structures and social value, according to diverse combinations of exogenous and endogenous fixed costs. In view of that, the model offers an additional tool for market assessment, with the purpose of identifying which type of sunk cost dominates the industry.