

An alternative economy-wide price model based on market power

Topic: Input-Output Analysis: Price evolution and policies (2)

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This paper addresses the research question: how does market power affect interindustry prices and welfare? The widely used Leontief Input-Output (I-O) price model assumes perfect competition, under which producers cannot influence prices, and gross operating surplus is interpreted solely as payments for capital services. While computationally simple and widely applied in policy analysis, this assumption neglects the potential for pure profits arising from market power, limiting the model's descriptive and analytical capacity.

We propose a monopolistic framework that decomposes gross operating surplus to estimate industry-specific markups. Using publicly available Input-Output data for the Spanish economy, we compare two polar scenarios: perfect competition as a lower bound and monopoly power as an upper bound. This approach extends the traditional I-O price model by establishing a flexible range of possible price and welfare outcomes. By contrasting these market power scenarios, the framework enables policy makers to evaluate the effects of technological changes, policy interventions, or market dynamics on prices, profits, and welfare across the economy.

The novelty of this research lies in providing a quantitative extension of the standard I-O price model to incorporate monopoly power, a feature largely absent in the literature. Unlike previous applications that assume perfect competition, our method allows for the identification and measurement of pure profits, offering new insights into distributional consequences, economy-wide price effects, and welfare implications for policy evaluation.