Pricing in Crisis

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Abstract

When demand aggregates both price-sensitive and price-insensitive behaviors, uniform pricing becomes a deficient market design that generates negative surplus during extreme-price events. We develop a price-control mechanism that efficiently resolves the tradeoff between protecting consumers and limiting rents. The mechanism implements a dynamic price cap that responds to demand adjustments and induces truthful supply through incentive payments. In a quantitative application to the French wholesale electricity market during the 2022–2023 energy crisis, the mechanism would have lowered expected procurement costs by roughly €200 billion, about two-thirds of total projected costs in this central scenario.

1 Introduction

Markets in which a homogeneous good is traded at a uniform price often aggregate buyers with heterogeneous abilities to adjust their demand in response to price changes. Some buyers can flexibly reduce or shift their quantities when prices fluctuate, while others cannot, either because of technological rigidities, contractual obligations, or the essential nature of the good. This mixture of elastic and inelastic demands is a structural feature of many high-stakes markets. When supply is tight, the clearing

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