

Using Market Mechanisms to Increase the Take-up of Improved Sanitation in Senegal

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Abstract

Many markets in developing countries, particularly those focused on public services, are marked by inefficiencies stemming from mismatches between demand and supply and market power. We institute just-in-time procurement auctions over three years and test the effect increased competition on prices and take-up of the services. We supplement the auctions data with survey data from 5,991 households around Dakar and compare prices between the auctions and the general market: prices decrease in the auctions by 7% relative to the general market.

The auctions for desludging services in Dakar, Senegal ran from June 2013 through July 2016 and led to 4,674 procurement auctions with 104 desludging operators. We show that auctions in which more desludgers are invited are more competitive and that much of the cost of distance is priced into the bids. We estimate that the expected profit of participating firms is approximately 895 CFA, or 17% of the realized profit margin of the winning firm. Assuming that the current winners in the auctions are retained, we find that perfect competition would lower prices by an additional 20%, increasing the percentage of prices accepted by consumers by 70%.

We simulate the effect of inviting more active lower cost bidders to the auctions, and find that price could decrease by up to an additional 13% and acceptances by households could increase by 29% if more bidders are chosen from among those who bid actively in the platform.

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