

PRIMARY DEALERS, INDIRECT BIDDERS, AND DIRECT BIDDING: A STRUCTURAL MODEL OF US TREASURY AUCTIONS ¹

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The US Department of Treasury finances the federal debt primarily with auction sales of bills, notes, and bonds. Moreover, Treasury auctions serve as benchmarks for the US and global financial markets. As such, the design of Treasury auctions is an important public policy issue. A central problem in the design of Treasury auctions is information advantage of primary dealers: primary dealers can observe bids by indirect bidders in forming their bids when making the market. For example, Hortacsu and Kastl (2012) estimate that primary dealers in the Canadian Treasury auctions obtain 13-27% of their expected profits from information contained in the customers' bids. In this paper, we empirically consider the direct bidding system that is unique in the US Treasury auctions and provides indirect bidders an option to bid directly to the Treasury, and estimate its impact on bidders bidding behavior and seller revenues. We develop a new model that generalizes Hortacsu and Kastl (2012) that takes into account of bidding behavior of indirect bidders with the direct bidding option. We then estimate the model using the bid-level data of US Treasury Auctions. We find that indirect bidders bid more aggressively through the direct bidding option compared with bids submitted through primary dealers. Counterfactual analysis shows that direct bidding could increase the revenues for the Treasury when market making function by primary dealers is sustained

KEYWORDS: Treasury Auctions, Primary Dealers, Direct Bidding, Market Design.

1. INTRODUCTION.

1. The Topic of the Paper: US Treasury Auctions. The U.S. Treasury sells bills, notes, bonds, and Treasury Inflation-Protected Securities (TIPS) to institutional and individual investors through public auctions to finance the public debt. Specifically, the Treasury Department sells these securities at auctions held at the Federal Reserve Bank of New York and the Bureau of Public Debt (BPD) in Washington, D.C. These Treasury auctions are important in 2 ways:

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