Deposit Requirements in Auctions*

Xiaogang Che[†] Tong Li[‡] Jingfeng Lu[§] Xiaoyong Zheng[¶]

Very preliminary and incomplete September 2017

Abstract

Deposit is a non-refundable reservation fee charged by the seller, which allows the winner to reserve the object prior to the final completion of transaction. In this paper, we examine the role of a deposit requirement in a (second-price and first-price) auction game in which there exists an ex-post outside option after bidding and the winner could default from the current transaction to take the option. We first characterize the equilibrium strategy for bidders and then the optimal choices of reserve price and deposit for the seller. Secondly, we establish the "expected revenue equivalence" across the second-price and first-price auctions at the optimal choices. We finally discuss the impacts of other types of deposit requirements on the equilibrium strategies and the seller's choices.

Keywords: auctions, outside options, deposit requirement.

JEL codes: D44.

^{*}We thank Lawrence Ausubel, De Sliva Dakshina, Hanming Fang, Matt Gentry, Ed Hopkins, Ronald Harstad, Seungwon (Eugene) Jeong, Ian Jewitt, Tilman Klumpp, Joosung Lee, Daniel Li, Alexander Matros, Matthew Mitchell, Andrew Postlewaite, Chara Papioti, Robert Porter, Mark Roberts, Vasiliki Skreta, William Thomson, Zhewei Wang, Hisayuki Yoshimoto, Charles Zheng for their helpful discussions and comments. Early version of the paper benefited from discussions at the "Auctions, competition, regulation, and public policy" conference at Lancaster University, AMES2017, CMES2017, CoED2017.

[†]Business School, Durham University, UK. E-mail: xiaogang.che@durham.ac.uk.

[‡]Department of Economics, Vanderbilt University, US. E-mail: tong.li@vanderbilt.edu.

[§]Department of Economics, National University of Singapore, Singapore. E-mail: ecsljf@nus.edu.sg.

[¶]Department of Agricultural and Resource Economics, North Carolina State University, US. E-mail: xzheng@ncsu.edu.