

# The Black Market for Beijing License Plates\*

Øystein Daljord<sup>†</sup>    Guillaume Pouliot<sup>‡</sup>    Junji Xiao<sup>§</sup>    Mandy Hu<sup>¶</sup>

May 4, 2021

## Abstract

Black markets can reduce the effects of distortionary regulations by reallocating scarce resources toward consumers who value them most. The illegal nature of black markets, however, creates transaction costs that reduce the gains from trade. We take a partial identification approach to infer gains from trade and transaction costs in the black market for Beijing car license plates, which emerged following their recent rationing. We find that at least 11% of omitted license plates are illegally traded. The estimated transaction costs suggest severe market frictions: between 61% and 82% of the realized gains from trade are lost to transaction costs.

**Keywords:** informal economy/underground economy, optimal transport, partial identification, semiparametric and nonparametric methods

**JEL Codes:** E26, D450, P230, C140

---

\*Warm thanks to Shanjun Li for comments and data. Thanks to John Barrios, Stéphane Bonhomme, Dan Black, Jean-Pierre Dubé, Alfred Galichon, Chris Hansen, Ryan Kellogg, Carl McLa, Luxi Shen, Avner Strulov-Shlain, Baohong Sun, Chad Syverson, and Thomas Wollmann for comments. Thanks to Charles Ahlstrom, Xinyao Kong, Cheryl Liu, Chun Pong Lau, and Omkar Katta for research assistance.

The R package implementing the methods developed herein, as well as pedagogical documents for instructors, are available on the corresponding author's website.

<sup>†</sup>Chicago Booth School of Business, University of Chicago, 5807 South Woodlawn Avenue, Chicago, IL 60637, USA. E-mail: [Oystein.Daljord@chicagobooth.edu](mailto:Oystein.Daljord@chicagobooth.edu). Web: [faculty.chicagobooth.edu/oystein.daljord](http://faculty.chicagobooth.edu/oystein.daljord)

<sup>‡</sup>Harris School of Public Policy, University of Chicago, 1155 E 60th St, Chicago, IL 60637 USA. E-mail: [guillaumepouliot@uchicago.edu](mailto:guillaumepouliot@uchicago.edu). Web: [sites.google.com/site/guillaumeallairepouliot](https://sites.google.com/site/guillaumeallairepouliot). Corresponding author.

<sup>§</sup>Department of Economics, Lingnan University, 8 Castle Peak Rd, Tuen Mun, Hong Kong. E-mail: [junji.xiao@gmail.com](mailto:junji.xiao@gmail.com). Web: <https://jjxiao.weebly.com/>

<sup>¶</sup>CUHK, Department of Marketing, Room 1105, 11/F, Cheng Yu Tung Building, 12 Chak Cheung Street Shatin, N.T., Hong Kong. E-mail: [mandyhu@baf.cuhk.edu.hk](mailto:mandyhu@baf.cuhk.edu.hk). Web: [bschool.cuhk.edu.hk/staff/hu-mandy-mantian](http://bschool.cuhk.edu.hk/staff/hu-mandy-mantian)