## Reinforcing Constraints\*

Francesca Zucchi<sup>†</sup> April 15, 2019

## Abstract

Small firms face financing frictions, and trading their stocks entails non-negligible bid-ask spreads. I develop a model that studies how these characteristics are related and investigates their real effects. Bid-ask spreads increase both the firm's cost of equity and the opportunity cost of cash, which leads to tighter financial constraints, higher liquidation risk, and underinvestment. The ensuing decline in firm value affects the participation of competitive liquidity providers and widens the bid-ask spread further, then amplifying its detrimental effects on corporate policies and value. The model studies some regulatory proposal affecting financial markets from a corporate perspective, like designated market makers or financial transaction taxes.

**Keywords:** Financial constraints, transaction costs, real effects of financial markets, small firms

JEL Classification Numbers: G32; G35

<sup>\*</sup>I thank Erwan Morellec for many insightful conversations and Pierre Collin-Dufresne, Sebastian Gryglewicz, Semyon Malamud, and Boris Nikolov for valuable advice. I also thank Jack Bao, Isabella Blengini, Anna Cieslak, Stefano Colonnello, Marco Della Seta, Michael Fishman, Luigi Guiso, Giang Hoang, Julien Hugonnier, Dalida Kadyrzhanova, Nataliya Klimenko, Arvind Krishnamurthy, Antonio Mello, Konstantin Milbradt, Kjell Nyborg, Dimitris Papanikolaou, Sebastian Pfeil, Paola Sapienza, Costis Skiadas, Philip Valta, Zexi Wang, Peng Zhun, and the seminar participants at the Bank of Italy, Caltech, Copenhagen Business School, EPFL/University of Lausanne, the Federal Reserve Board, HEC Paris, Johns Hopkins University, Northwestern University, KU Leuven, the London School of Economics, the Stockholm School of Economics, the Toulouse School of Economics, the University of Wisconsin Madison, the University of Zurich, and WU Vienna. Any remaining errors are my own. The views expressed are those of the author and do not necessarily reflect those of the Federal Reserve System or its staff.

<sup>&</sup>lt;sup>†</sup>Federal Reserve Board. E-mail: francesca.zucchi@frb.gov