Firm entry, credit availability and monetary policy

Teruyoshi Kobayashi*

September 2010

Abstract

This paper presents a dynamic general equilibrium model that incorporates firm entry under credit rationing. Goods-producing firms in this model are bank dependent in the sense that they have no choice but to borrow funds from banks to cover labor wages that must be paid in advance of production. The results show that a cut in the policy rate enhances firm entry by mitigating the severity of credit rationing. This policy transmission is different from the conventional balance-sheet channel in that a change in the policy rate directly affects borrowers' credit availability. I also show that a sudden stop in the credit supply to new firms is most likely to occur shortly after a credit boom. This is because endogenous downward wage rigidity prohibits the credit risk of prospective firms from decreasing enough to re-equilibrate the loan market.

JEL Classification: E32, E44, E52

Keywords: credit channel, credit crunch, credit rationing, firm entry, monetary policy transmission.

^{*}Graduate School of Economics, Kobe University, 2-1 Rokkodai-cho, Nada-ku, Kobe 657-8501, Japan. E-mail: teruyoshi5@gmail.com. I would like to thank Ippei Fujiwara, Shin-ichi Fukuda, Yuichi Furukawa, Rafael Gerke, Ryo Horii, Toshiki Jinushi, Takashi Kamihigashi, Shigeto Kitano, Bartosz Maćkowiack, Junya Masuda, Atsushi Miyake, Ryuzo Miyao, Ichiro Muto, Kentaro Nakajima, Keisuke Otsu, Shigenori Shiratsuka, Nao Sudo, Vladyslav Sushko, Takayuki Tsuruga, Ichihiro Uchida, Kozo Ueda, Carl Walsh, Tsutomu Watanabe, Tomoaki Yamada, Nobuyoshi Yamori, Junji Yano and other seminar participants at UCSC, Nanzan University, Kobe University, BOJ, ECB and Chukyo University for their helpful comments and suggestions. Part of this paper was written while I was visiting the UCSC Economics Department. I thank the Department for its hospitality. Financial support from KAKENHI 21243027 and the Zengin Foundation is gratefully acknowledged.