How Do the Minimum Capital Requirements Affect Banking Competition and Profitability?

Louie(Yi) Liu *

University of California, Irvine

November 10, 2016

Job Market Paper

Abstract

This paper examines why U.S. banks hold significantly more equity capital than the minimum required by the government. The theoretical model shows that in competitive market, banks choose the optimal capital ratios to maximize their profits; the Minimum Capital Requirements (MCR) are likely to be an important factor on the bank's optimal choice and the target ratios decrease with banks' size. This paper also takes the Industrial Organization (IO) approach to analyze the competitive effects of MCR on the oligopolistic market. Banks may collude to hold even higher capital ratios in the oligopolistic market since the capacity constraints caused by MCR reduce the competition. Using a sample of US banks from 2002 to 2015, the empirical works finds that the relation between capital and profitability is nonlinear: it's an inverted U shape.

JEL Classification: L13, L22, G18, G21

Keywords: Capital Regulation, Profitability, Optimal Capital Ratios, Collusion

*PhD Candidate, Department of Economics, 3151 Social Science Plaza, Irvine, CA 92697-5100. (Email: yil18@uci.edu). I am indebted to Gary Richardson, Jiawei Chen, John Duffys, Eric Swanson, Linda Cohen David Brownstone and Jan Brueckner for their invaluable guidance, support and encouragement. I also thank the Department of Economics, UCI for the valuable support while this research was conducted.