

UNIVERSITY OF ZÜRICH  
Department of Banking and Finance  
Chair of Financial Economics

*Supervisor:*  
Prof. Dr. Felix KÜBLER

MASTER THESIS

---

**Macroprudential policy:  
Countercyclical Loan-to-Value and  
Capital Requirements**

---

*Author:* Luca TONIZZO

*Course of Studies:* Economics

*Date:* 30.11.2016

UNIVERSITY OF ZÜRICH

## *Abstract*

### **Macroprudential policy: Countercyclical Loan-to-Value and Capital Requirements**

by Luca TONIZZO

This thesis studies the effectiveness of macroprudential policies in a DSGE model with financial frictions and an active financial sector by allowing the borrowing constraint on households to only bind occasionally. The instruments available to the macroprudential authority are loan-to-value caps on households and capital requirements, both of which are countercyclical, depending positively on households' credit growth. I find that the outcome of the occasionally binding constraint is primarily influenced by four factors: (i) banks' market power, (ii) the calibration of the discount factors, (iii) the Taylor rule of the monetary authority and (iv) the shock's size and type. Overall, the borrowing constraint does not bind in periods of high loan interest rates. The results from a large negative technology shock show two conclusions. First, macroprudential policies are less effective when it is assumed that the borrowing constraint only binds occasionally. Secondly, in this case, using both macroprudential instruments together helps to increase the effectiveness of macroprudential policies. Specifically, loan-to-value are useful in periods of binding borrowing constraint, while countercyclical capital requirements are helpful when the borrowing constraint does not bind.