Empirical Essays on Monetary Policy and Financial Stability

Dissertation Thesis

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Abstract

This dissertation thesis consists of three empirical essays focusing on monetary policy, macroprudential policy, financial stability, and quantitative research synthesis of literature on a key economic parameter.

The first essay presents a meta-analysis of the elasticity of substitution between capital and labor. We identify factors responsible for large values of the elasticity estimated in the literature—on average, 0.9—and find that the mean elasticity conditional on the absence of these factors is 0.3. To obtain this result, we collect 3,186 elasticity estimates reported in 121 studies and codify 71 variables that reflect the context in which researchers produce their estimates. We find publication bias is responsible for at least half of the overal reduction in the mean elasticity from 0.9 to 0.3. The empirical literature thus rejects the Cobb-Douglas specification.

The second essay collects 1,555 estimates of the impact of short-term monetary policy rates on house prices from 37 individual studies. Several central banks have leaned against the wind in the housing market by increasing the policy rate preemptively to prevent a bubble. Yet, we show that the empirical literature provides mixed results: the estimated semi-elasticities range from −12 to positive values. We then relate the estimates to 39 characteristics of the financial system, business cycle, and estimation approach. We find that the mean reported estimate is exaggerated by publication bias.

The third essay explores the effect of higher capital requirements on bank credit growth in the Czech Republic, drawing on a unique confidential bank-level dataset. Our results indicate that higher additional capital requirements have a negative effect on the credit supply of banks maintaining lower capital surplus. We estimate the effect on annual credit growth to be between -1.2 and -1.8 pp. We emphasise the crucial role of bank capital surplus in the transmission of more stringent capital regulation.