Dissertation thesis

Banks' performance in low and negative interest rate environment

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Abstract

This dissertation consists of four empirical papers that focus on the performance of banks in the low or even negative interest rate environment characteristic for the decade after the global financial crisis of 2007-2009. The first paper focuses on the analysis of a relationship between the net interest margin (NIM) of EU banks and market interest rates in a low-interest rate environment while controlling for the impact of market concentration by examining a large sample of annual data on 629 banks from EU countries for the 2011-2016 period. The results show a positive concave relationship between NIM and short-term interest rates, deterioration of NIM for all types of banks and a higher market concentration leading to higher NIM. In the second paper, we examine the determinants of NIM of European and US banks in a zero lower bound (ZLB) situation while controlling for institutional design factors, i.e. difference between capital-based and bank-based financial markets. We analyse a large sample of annual data on 629 European banks and 526 US during the 2011-2016 period confirming that NIM is significantly influenced by the different institutional designs. The third paper deals with prepayment risk and provides empirical evidence from the Czech banking sector. Our analysis quantifies the impact of early repayment of a mortgage on balance sheets and interest margin of three different types of banks, which differ in the structure of their financing. The results of models have shown that these prepayments risks were reflected in the decreasing net interest margin of the Czech banking sector. The fourth paper focuses on the impact of introduction of the liquidity coverage ratio (LCR) as a binding constraint for banks. Using a dataset of 707 banks of EU countries for the period 2012-2018 the impact of gradual phase-in of the LCR starting at 60% in 2015 and ending at 100% in 2018 is considered. The estimation shows positive impact of the LCR requirement on the liquidity situation of the banks while suggesting that the existence of negative interest rate environment has a negative impact.