**Abstract**
This dissertation consists of three research papers dealing with selected issues relevant for central banks after the global financial crisis. The post-crisis world has seen a significant strengthening of the role of central banks with regard to the financial system as well as the real economy. Correspondingly, agendas of some central bankers have grown substantially, encompassing among others monetary policy, financial stability (macro- and microprudential policies) as well as resolution mechanisms. This dissertation thesis reflects the broad focus of some contemporary central banks in three original research articles that concern current unexplored issues for monetary policy and financial stability in the European Union, the Czech Republic, and the United States, potentially bringing policy implications for the relevant authorities.

The first article analyzes inflation convergence in the whole European Union (EU) over 1999–2017 and provides comprehensive and robust evidence that the process of inflation convergence among the countries of the EU was not permanently disrupted during the global financial crisis, the European sovereign debt crisis, or the period of zero lower bound interest rates. Specifically, the convergence process did not noticeably weaken after the crisis and the occurrence of inflation convergence became more widespread compared to the pre-crisis years. Our main findings imply that further enlargement of the euro area is feasible from the perspective of inflation convergence among EU countries.

The second article studies determinants of the bank-level distributional dynamics of client interest rates on consumer loans in the Czech Republic in the recent period 2014–2019 when banks started to provide new consumer loans at very low interest rates. We show that development of the market rate, the NPL ratio as well as the unemployment rate facilitated the observed distributional dynamics. On the other hand, using a variety of variables on market competition/market concentration, our analysis reveals that the role of this determinant is limited at best. Our results, especially regarding the pass-through from market rates to consumer loan rates, are mostly in line with the international literature but are novel in the Czech context and might be relevant for monetary policy decisioning.

In the third article, we analyze the link between mortgage-related regulatory penalties levied on banks and the level of systemic risk in the U.S. banking industry. We employ a frequency decomposition of volatility spillovers to draw conclusions about system-wide risk transmission with short-, medium-, and long-term dynamics. We find that after the possibility of a penalty is first announced to the public, long-term systemic risk among banks tends to increase. In contrast, a settlement with regulatory authorities leads to a decrease in the long-term systemic risk. Our analysis might be relevant both to authorities imposing penalties as well as to those in charge of financial stability.