

## Abstract

Net interest margin (NIM) is an important indicator of a bank's operational efficiency. Based on the balance sheet data of 189 major listed banks in Europe from 2010 to 2019, this thesis studies the bank's NIM mechanism in a negative interest rate environment. This thesis focuses on the system GMM method and the results show that the policy interest rate is positively related to NIM in the long run and negatively related in the short run, but the relationship between the two is not significant in the short run. Moreover, in a negative interest rate environment, bank NIM's sensitivity to policy interest rates has greatly increased, especially the policy of interest rate cuts. In addition, the sensitivity of NIMs of different banks to policy interest rates also differs significantly. Generally, the NIMs of banks with a high degree of internationalization and larger size are less sensitive to changes in policy interest rates, while the NIMs of banks with a higher share of retail business in their total business are more sensitive to changes in policy interest rates. Finally, through the value-at-risk analysis and stress test, this thesis concludes that the policy interest rate, net loan-to-asset ratio, non-performing loan ratio and inflation rate are sensitive factors of NIM. When NIM is subject to a positive shock of policy interest rates, banks can obtain higher profits, while a negative shock of policy interest rates will increase banks' risks. The research in this thesis can enrich the research results related to negative interest rate policy transmission and provide a basis for bank interest margin management.

<b>JEL Classification</b>	E52 , F831
<b>Keywords</b>	NIM, GMM method, VaR analysis, Stress test
<b>Title</b>	Mechanism of Negative Interest Rate's Influence on Bank Net Interest Margin