# Bank Market Power and Transmission of Monetary Policy into Bank Lending: Evidence from Loan-Level Data*

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## Extended Abstract

This paper addresses three research questions: (i) How does monetary policy transmit to bank lending depending on the bank market structure? (ii) How are various characteristics of loans such as volume, maturity, lending rate, and riskiness affected? (iii) Do any other bank-level characteristic matter? All these questions are important for financial stability.

The paper is related to the emerging literature that studies the interlink between bank market power and transmission of monetary policy. Afanasyeva and Güntner (JME 2020) find that a monopolistic bank prefers a higher leverage ratio of the borrower after a monetary expansion. Brissimis, Delis, and Iosifidi (IJCB 2014): document that banks with even moderate levels of market power are able to buffer the negative impact of a monetary policy change on bank loans and credit risk. Scharfstein and Sunderam (Harvard mimeo 2016) discover that high concentration in mortgage lending reduces the sensitivity of mortgage rates and refinancing activity to mortgage-backed security rates. Finally, Wang, Whited, Wu, and Xiao (NBER WP 2020) find that bank market power

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explains much of the transmission of monetary policy to borrowers, with an effect comparable to that of bank capital regulation. We contribute to this literature by exploiting cross-region differences in concentration, which is a remarkable feature of the market for bank lending in Russia.

In this study we employ confidential loan-level data from the credit register at the monthly frequency. It contains the information on all loans that were granted to corporate borrowers in the period between 2017 and 2022. The design of our study is inspired by Khwaja and Mian (AER 2008) and Morais et al (JF 2019), both also using credit register data for Pakistan and Mexico, respectively. Morais et al (JF 2019) focus on the transmission of monetary policy from the U.S. and the euro zone to domestic lending by Mexican subsidiaries of foreign banks but it does not address the role of bank market power for this transmission. As Khwaja and Mian (AER 2008) showed in their study, the substantial benefit that provide loan-level data is the power of identification: time-varying demand shocks at the firm level and time-varying shocks at the bank level can be controlled for in a simple way – by saturating loan-level panel data regressions with double time×firm and time×bank fixed effects, which cannot be done with bank-level data.

As outcome variables in regressions we use the volume of a loan, duration, interest rate, and also a few proxies for *ex ante* (credit spread) and *ex post* risk taking (the probability of default over 12 months following loan origination). Our regressors of interest are (i) the double interaction of the Bank of Russia policy rate and the region-specific Herfindahl – Hirschman Index (HHI) as a proxy for bank market power in lending at the region level and (ii) triple interactions of the policy rate, HHI, and a bank specific characteristic such as bank size and capital ratio. As mentioned above, we saturate our regressions with single and double fixed effects in order to control as best as we can unobserved time-varying common factors, invariant firm- and bank-level factors, and also time-varying firm- and bank-level factors.

We test a number of hypotheses of interest. A cut in the policy rate stimulates bank lending both along extensive (the loan volume) and intensive margins (the probability

of granting a loan to a new customer). It also incentivizes banks to grant riskier loans with longer maturity. These patterns are often referred to as *chasing for yield* and are presumably less pronounced in the environment with high market concentration and also for bigger and better capitalized banks. As theory suggests, the pass-through of policy rate into lending rate is predicted to be weaker in regional markets with high concentration. We find some preliminary evidence in support of these hypotheses. Our findings imply that there is a trade-off between the potency of monetary policy and financial stability, and we believe this is an important policy message.