# Maximilian Jager

# Assistant Professor Department of Finance, Frankfurt School of Finance & Management

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### **APPOINTMENTS**

Assistant Professor of Finance Frankfurt School of Finance & Management, Germany	2022 –
RESEARCH INTERESTS	
Primary: Financial Regulation, Financial Intermediation	
Secondary: Financial Stability, Macro-Finance	
EDUCATION	
Ph.D. in Economics  Advisors: Ernst-Ludwig von Thadden (primary), Sascha Steffen (secondary) University of Mannheim, Germany	2016 – 2022
Visiting Scholar Host: Viral Acharya Stern School of Business, New York University, USA	2021 – 2022
Master of Science in Economics (with honors) University of Regensburg, Germany	2013 – 2016
Visiting Student Universidad Carlos III de Madrid, Spain	2014 – 2015
Bachelor of Science in Economics University of Regensburg, Germany	2010 – 2013
DUDI ICATIONIC	

#### **PUBLICATIONS**

Kicking the can down the road: government interventions in the European banking sector [2] joint with Viral Acharya (NYU Stern), Lea Borchert (ZEW), and Sascha Steffen (Frankfurt School) We analyze the determinants and the long-run consequences of government interventions in the eurozone banking sector during the 2008/09 financial crisis. Using a novel and comprehensive dataset, we document that fiscally constrained governments "kicked the can down the road" by providing banks with guarantees instead of full-fledged recapitalizations. We adopt an econometric approach that addresses the endogeneity associated with governmental bailout decisions in identifying their consequences. We find that forbearance caused undercapitalized banks to shift their assets from loans to risky sovereign debt and engage in zombie lending, resulting in weaker credit supply, elevated risk in the banking sector, and, eventually, greater reliance on liquidity support from the European Central Bank.

Review of Financial Studies, 2021, 34(9), 4090 – 4131.

#### The Janus Face of Bank Geographic Complexity ☐

joint with Iñaki Aldasoro (BIS) and Bryan Hardy (BIS)

We study the relationship between bank geographic complexity and risk using a unique dataset of 96 global bank holding companies (BHCs) over 2008–2016. From data on the affiliate network of internationally active banking entities, we construct a measure of geographic coverage and complexity for each BHC. We find that higher geographic complexity heightens banks' capacity to absorb local economic shocks, reducing their risk. However, higher geographic complexity can also help banks soften the impact of prudential regulation, increasing their risk. Bank geographic complexity therefore has a Janus face, decreasing some but increasing other aspects of bank risk.

Journal of Banking and Finance, 2022, 134, 106040.

#### WORKING PAPERS AND WORK IN PROGRESS

# Clear(ed) decision: the effect of Central Clearing on firms' financing decision ☐ joint with Frederick Zadow (Bundesbank)

Does credit derivative market regulation affect corporate finance decisions? We investigate this question in the setting of the central counterparty (CCP) clearing reform on the corporate credit default swap (CDS) market. Exploiting the staggered introduction of CCP clearing to CDS contracts – an insurance against firm default – we uncover a shift in the debt composition of firms with adverse real economic consequences. Firms whose CDS contracts are eligible for clearing with the monopolist CCP lose bond market funding, but increase their demand for bank loans. Insufficient bank credit supply forces firms to shrink their balance sheet, cut investment and become less profitable. We theoretically motivate two potential channels of effect from clearing firms' CDS contracts onto bond demand. The empirical evidence strongly supports an "arbitrage channel": lower counterparty risk on the centrally cleared CDS market attracts investors away from the bond market.

#### Why Did Bank Stocks Crash during COVID-19?℃

joint with Viral Acharya (NYU Stern), Robert Engle (NYU Stern) and Sascha Steffen (Frankfurt School) A two-sided "credit-line channel" – relating to drawdowns and repayments – explains the severe drop and partial subsequent recovery in bank stock prices during the COVID-19 pandemic. Banks with greater exposure to undrawn credit lines saw larger stock price declines but performed better before the pandemic and after the policy interventions. Despite deposit inflows, high drawdowns led to reduced bank lending, suggestive of capital encumbrance upon drawdowns. Repayments of credit lines unencumbered capital which explains the stock price recovery starting Q2 2020. Bank provision of credit lines resembles writing deep out-of-the-money put options on aggregate risk, and we propose how to incorporate this feature into bank capital stress tests.

Review of Financial Studies, Revise and Resubmit

Bundesbank Discussion Paper No. 23/2020.

#### Interbank Risk Assessment – A Simulation Approach 🗗

joint with Thomas Siemsen (Bundesbank) and Johannes Vilsmeier (ECB)

We introduce a novel simulation-based network approach, which provides full-fledged distributions of potential interbank losses. Based on those distributions we propose measures for (i) systemic importance of single banks, (ii) vulnerability of single banks, and (iii) vulnerability of the whole sector. The framework can be used for the calibration of macro-prudential capital charges, the assessment of systemic risks in the banking sector, and for the calculation of banks' interbank loss distributions in general. Our application to German regulatory data from end-2016 shows that the German interbank network was at that time in general resilient to the default of large banks, i.e. did not exhibit substantial contagion risk. Even though up to four contagion defaults could occur due to an exogenous shock, the system-wide 99.9% VaR barely exceeds 1.5% of banks' CET 1 capital. For single institutions, however, we found indications for elevated vulnerabilities and hence the need for a close supervision.

#### Bank opacity – patterns and implications ☐

joint with Stefan Avdjiev (BIS)

We investigate the patterns and implications of bank opacity in Europe using a rich bank-level data set. Employing a novel event study methodology, we document that public data releases on banksâ exposures to individual countries and sectors contain information not previously priced by equity and CDS markets. Bank opacity is highest for European periphery banksâ sovereign exposures and European core banksâ private sector exposures. Underestimation of banksâ credit risk by markets is associated with lower funding costs and higher wholesale borrowing (for all banks) as well as with greater risk taking and higher profitability (for European periphery banks).

CEPR Discussion Paper No. 17024

#### Regulatory Heterogeneity and Credit Allocation

This paper investigates the macroeconomic implications of the co-existence of two regimes of bank credit risk regulation: i) the internal ratings-based approach (IRBA) giving banks discretion to set their own regulatory capital charge for each loan; ii) the standardized approach (SA) giving a fixed capital charge to every loan independent of the borrower's credit risk. Using German credit register data, I document that the different regulation regimes translate into heterogeneous lending incentives across banks for the same borrower. I aggregate the extent of this heterogeneity in credit supply to the sector level and link it to measures of capital misallocation. My results show a more efficient credit allocation in sectors whose lending is dominated by IRBA banks. I rule out that sorting, by banks or firms, drives these differences. This suggests that the IRBA, criticized by many stakeholders due to its inherent moral hazard problem of risk underestimation, improves capital allocation in the economy. That is, in exercising their hazardous behaviour, banks generate a positive externality.

—work in progress—

### **CONFERENCES AND PRESENTATIONS**

#### Conference presentations (including scheduled):

AEA (poster), FIRS Annual Conference, IBEFA Summer Meeting, AFA PhD Student Poster Session, ENTER Jamboree, German Economic Association Annual Meeting, AFFI Annual Meeting, CRC TR 224 Retreat, RGS Doctoral Workshop, Bonn-Mannheim PhD Workshop, Muenster Banking Workshop, Workshop on Recent Developments in Banking Research (CRC TR 224), IWH-CIREQ-GW Macroeconometric Workshop (poster), Spring Meeting of Young Economists

#### Seminar presentations (including scheduled):

Scheller School of Business, NHH Bergen, Oxford Saïd, Copenhagen Business School, WU Vienna, CEMFI, NYU Stern, University of Bern, Stockholm School of Economics, HEC Paris, Frankfurt School of Finance & Management, Tilburg University, Bundesbank, Bank for International Settlements

### PROFESSIONAL EXPERIENCE

Research Assistant Prof. Sascha Steffen, Frankfurt School of Finance & Management, Germany	2021 – 2022
Research Assistant Bank for International Settlements, Switzerland	February – August 2019
Research Assistant Bank for International Settlements, Switzerland	June – September 2018
Visiting Researcher Bundesbank, Germany	July – December 2017
<b>Trainee</b> European Central Bank, Germany	May – September 2016

Internships KPMG AG, Bayerische Landesbank, Centre for European Economic Research (ZEW)	2012 - 2015
TEACHING EXPERIENCE	
<b>Teaching Assistant</b> Principles of Econometrics (B.Sc.)  University of Mannheim	2018 – 2019
<b>Teaching Assistant</b> Principles of Econometrics, Statistics for Economists, Macroeconomics I/II (all B.Sc.)  University of Regensburg	2012 – 2016
SCHOLARSHIPS AND AWARDS	
Exchange Scholarship German Academic Exchange Service (DAAD)	2021 – 2022
<b>Ph.D. Scholarship</b> Stiftung Geld & Währung	2018 – 2021
<b>Ph.D. Scholarship</b> German Research Foundation (DFG)	2016 – 2018
Selected Participant Lindau Nobel Laureates Meeting	2020
<b>Finalist</b> DZ Bank Career Award	2017
<b>Top of class</b> M.Sc. Economics, University of Regensburg	2016
Thesis Award Outstanding master thesis in economics or business, Christa-Lindner Foundation	2016
SKILLS	

# **OTHER ACTIVITIES**

Languages: English, German (native), Spanish

**Professional**: Ph.D. student representative, founder and organizer of Ph.D. student reading class **Private**: Instructor of university sports classes, volunteer at the local animal shelter, futsal enthusiast

## **REFERENCES**

Prof. Ernst-Ludwig von Thadden

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Prof. Viral Acharya

Department of Finance NYU Stern ⋈ vacharya@stern.nyu.edu Prof. Sascha Steffen

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