OTTO VON GUERICKE
UNIVERSITÄT
MAGDEBURG

WW

FAKULTÄT FÜR
WIRTSCHAFTSWISSENSCHAFT

Forschungsbericht 2015

Forschergruppe IWH

FORSCHERGRUPPE IWH

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1. Leitung

Prof. Reint E. Gropp, PhD

2. Hochschullehrer

Prof. Reint E. Gropp, PhD (Professur "Volkswirtschaftslehre")

Prof. Dr. Steffen Müler (Professur "Wirtschaftswissenschaft: Produktivität und Innovationen")

Jun.-Prof. Stefano Colonnello, PhD (Juniorprofessur "Financial Economics")

Jun.-Prof. Dr. Felix Noth (Juniorprofessur "Banking and Financial Systems")

Jun.-Prof. Qizhou Xiong, PhD (Juniorprofessur "Financial Economics")

3. Forschungsprofil

Das Profil der Forschergruppe IWH und der ihr angehörenden Fakultätsmitglieder ist über die Homepage des Leibniz-Instituts für Wirtschaftsforschung Halle (IWH) verfügbar:
http://www.iwh-halle.de/

4. Forschungsprojekte

Projektleiter: Prof. Dr. Reint E. Gropp

Förderer: Deutsche Forschungsgemeinschaft (DFG); 01.01.2012 - 31.12.2016

Public guarantees and allocative efficiency

Part 1: Takes advantage of a natural experiment, in which long-standing public guarantees were removed for a set of German banks following a lawsuit. Project identifies the effects of these guarantees on the allocation of credit ("allocative efficiency"). Using matched bank/firm data we find that public guarantees reduce allocative efficiency. With guarantees in place poorly performing firms invest more and maintain higher rates of sales growth. Moreover, firms produce less efficiently in the presence of public guarantees. Consistently, we show that guarantees reduce the likelihood that firms exit the market.

Part 2: We examine the effect of regulatory forbearance during crises on subsequent productivity growth. We estimate regulatory forbearance in different US MSAs and show that subsequent real growth rates, employment rates and other variables related to productivity are higher if forbearance was lower, i.e. more banks during the crisis were closed rather than saved.

Part 3: We examine the effect of redlining rules (i.e. rules that force banks to lend into low income neighbourhoods) on the supply of credit in those neighborhoods and housing price growth. The identification relies on differences in the level legislation eligible areas (census tracks) due to differences in MSA level household income. We find that that mortgage credit supply and house price growth in the run up to the 2008/2009 financial crisis was higher in eligible areas compared to otherwise similar non-eligible areas. The paper thus identifies "redlining" as one central cause of the financial crisis.

Projektleiter: Prof. Dr. Reint E. Gropp

Förderer: Weitere Stiftungen; 01.01.2014 - 31.12.2018

Bank financial distress and consumption expenditure

Part 1. Examines the effect of banks financial distress on Canadian household consumption during the 2008/2009 financial crisis. The paper uses a unique identification strategy to show that distressed banks significantly reduced the supply of household non-mortgage credit. For high income/high wealth households this does not result in a reduction of consumption, because these households are able to compensate by drawing down liquid assets. Those households with low incomes or low liquid assets reduce consumption. On aggregate the credit supply effects can explain just over half of the dip in household consumption expenditures in Canada during the 2008/2009 financial crisis.

Part 2: Examines the effect of the real estate bust in the U.S. after the financial crisis on consumption expenditures. The literature has argued that consumption in 20010-20013 did not pick up in the recovery, because households were deleveraging, i.e. reducing their exposure to debt. This is a demand effect. In the paper we show that a supply effects was also at work. We take advantage of the fact that renters were not exposed to the adverse real estate wealth shock to identify supply effects.

Projektleiter: Prof. Dr. Reint E. Gropp

Förderer: Weitere Stiftungen; 01.01.2013 - 31.12.2017

Effects of capital requirements on bank behavior

The project studies how banks adjust their balance sheets in response to higher capital requirements. In order to increase their capital ratios, banks can adjust their balance sheets in two different ways: They can either increase their levels of regulatory capital (the numerator of the capital ratio), or they can reduce their levels of risk-weighted assets (the denominator of the capital ratio) (Admati et al., 2010). A reduction in risk-weighted assets can entail adverse effects on the real economy if many banks simultaneously decide to sell assets (fire sales) or reduce lending (credit crunch) (Hanson et al., 2011). Empirically identifying the effect of higher capital requirements on banks' balance sheet adjustment faces a number of challenges: Most importantly, one needs to find exogenous variation incapital requirements. Since capital requirements are rather constant, there is little variation

over time; and when they do change, they mostly change for all banks in a given economic region at the same time, leaving no cross-sectional variation to exploit. The project addresses these empirical challenges by exploiting the 2011 capital exercise conducted by the European Banking Authority (EBA) as a natural experiment. The capital exercise required a subset of European banks to reach and maintain a 9 percent core tier 1 capital ratio by the end of June 2012, while other European banks were not subject to this increase in capital requirements. The rule by which banks were selected to be included in the capital exercise allows disentangling the effect of capital requirements from effects associated with bank size. Banks were included in the capital exercise in descending order of their market shares by total assets in each Member State' such that the exercise covered "50% of the national banking sectors in each EU Member State, as expressed in terms of total consolidated
assets as of end of 2010." (EBA, 2011). Since national banking sectors in Europe differ with regard to total size and concentration of market shares, the country-specific selection threshold yields a considerable overlap in size between banks participating and not participating in the capital exercise. These institutional features of the capital exercise allow us to employ a difference-in-difference matching approach to identify the causal effects of higher capital requirements on banks' balance sheet adjustment.

Projektleiter: Prof. Dr. Reint E. Gropp

Förderer: Weitere Stiftungen; 01.01.2013 - 31.12.2017

Internal organization of banks and cross-border transmission of shocks

The internal functions of global banks could be decisive factors in the transmission of shocks both across a country's regions and internationally. However, there is still little knowledge of how the internal organization of these financial conglomerates is connected with their cross-border lending decisions. A major obstacle for such an analysis is the lack of information about the degree to which a parent bank affects the decisions of its foreign subsidiaries. Few studies have focused on confidential information about the activities of the internal capital markets in banking conglomerates (see, for instance, Cetorelli and Goldberg (2012a) and Cetorelli and Goldberg (2012b)), but such information is usually either not available to the general scientific community, or available only for a small number of countries, such as the U.S., which makes the results difficult to apply elsewhere. In the proposed project, we introduce a new measure of bank integration, based on the organizational culture within a global bank, reflected by the strength of the language in its publicly available financial reports. After establishing the validity of this approach for our purposes, we will investigate which social and bank-specific characteristics determine the degree of integration within global banks and whether that degree of integration affects the transmission of solvency and liquidity shocks from parents to their subsidiaries.

We base our method on the General Inquirer Approach developed by Philip Stone and his collaborators (Stone et al. (1966)) at the Harvard Laboratory of Social Relations. The General Inquirer is a computer software that calculates the frequency of appearance of a predefined set of words in a given document. In particular, we use the "Power" category of the Lasswell value dictionary to gauge markers for the prevalence of a language of power, authority and control in 267 annual financial reports of 105 global banks for the years 1997, 2005 and 2012, totaling at 22.4 million words. Then, we calculate our measure of bank integration, the Power Ratio, as the ratio of the number of authority-related words to the total words in the particular document. Since we consider the language of authority to be an indicator of the intrinsic corporate culture within a bank, which is stable across time, we pool all documents for each bank to derive static measures of bank integration, arriving at a cross-section of 105 Power Ratio values. Subsequently, we analyze whether bank integration is determined by individual bank characteristics or by country-related social and economic factors. Our hypothesis is that the degree of centralization of the society from which a bank originates determines how centralized it is in its internal operations. Thereafter, we will focus on the main part of our analysis: whether the degree of bank integration, as measure by the Power Ratio, affects the transmission of parent shocks to domestic and foreign subsidiaries.

Projektleiter: Prof. Dr. Reint E. Gropp

Förderer: Weitere Stiftungen; 01.01.2014 - 31.12.2018

Public Soft information

In their annual 10-K reports, the managers of public firms usually include forward-looking disclo-sures, i.e. public statements about their firms' expected future performance, like e.g. future profits or future revenues. Provided that such forward-looking disclosures contain additional information, their release might reduce the information asymmetry between firm insiders and outsiders, and result into better financing terms for a public firm. Prima facie, the information content of forward-looking disclosures is ambiguous, since they are non-verifiable at the moment they are made, and since managers might try to improve the financing terms for their firms via the release of overly optimistic statements. However, misleading external investors via overly optimistic disclosures is costly for a manager: If she fails to live up to investors' optimistic expectations, her firm underlies significant legal risks, potentially resulting into costly lawsuits. Further, since the manager repeatedly interacts with external investors, and since her forward-looking disclosures are verifiable ex post, misleading investors today harms the manager's reputation for making accurate public disclosures. Hence, a manager faces a tradeoff between the immediate gain from an overly optimistic statement today, and the loss in reputation which arises if she does not meet investors' expectations. Our research aims at uncovering the economic factors which affect this tradeoff, and to provide empirical evidence for our findings.

We use an infinitely repeated game-theoretic model with incomplete information in order to examine the economic mechanisms which underlie a manager's forward-looking disclosures. Our model is based on the framework used in Mathis et al (2009), and features as central agent the manager of a public firm who privately observes in each period the quality of a risky investment project. The manager can (but need not) make a forward-looking disclosure about the project's quality in order to attract external finance from imperfectly informed investors. Investors will use the firm's past disclosures for their assessment of the credibility of the manager's public statement. We derive the following results: If forward-looking statements are associated with legal costs, it is not possible to sustain an equilibrium where a manager's disclosures convey no information to investors (like a babbling equilibrium). Further, we find that the managers of opaque and profitable firms are more likely to release forward-looking statements to the public. Under certain conditions on model parameters, their disclosures will be accurate, i.e. they will never mislead external investors.

Projektleiter: Prof. Dr. Steffen Müller

Projektbearbeiter: Dr. Daniel Fackler (IWH); Dr. Jens Stegmaier (IAB); Prof. Dr. Steffen Müller (OvGU; IWH)

Förderer: Haushalt; 01.12.2015 - 28.11.2017

Arbeitsplatzverlust aus jungen und kleinen Betrieben

Wir untersuchen die kurz- und langfristigen Anpassungskosten (Einkommen, Lohn, Beschäftigung) die sich für die Beschäftigten ergeben, wenn sie ihren Arbeitsplatz aufgrund der Insolvenz des Arbeitgebers verlieren. Wir fokussieren dabei auf junge und kleine Betriebe. Diese Frage ist wichtig, da kleine und junge Betriebe als Treiber von Innovation und Wachstum gelten und ein Großteil der Insolvenzen kleine und junge Betriebe betreffen. Bisher konnte diese Frage aus Mangel an Daten international und national noch nicht untersucht werden. Erste Ergebnisse deuten auf hohe Anpassungskosten hin, die wider Erwarten kaum unter den Kosten von Arbeitsplatzverlusten aus größeren/älteren Betrieben liegen. Dieses Ergebnis ist zum einen wichtig für die Ausgestaltung staatlicher Mechanismen zur Abfederung sozialer Lasten aber es fordert auch gängige Theorien der Arbeitsmarktökonomik heraus, da diese hohe Kosten bei Entlassung aus kleinen und jungen Betrieben nicht erklären können.

Projektleiter: Jun.-Prof. Dr. Felix Noth

Förderer: Deutsche Forschungsgemeinschaft (DFG); 01.01.2015 - 31.12.2017

Interactions between bank-specific risk and macroeconomic performance

The global financial crisis has demonstrated that financial markets and the real economy are closely related. We have learned that risk at the level of individual financial institutions can harm the stability of the financial system as a whole. This, in turn, affects macroeconomic performance and potentially slows down economic recovery. In this project, we will investigate how risk at the level of large banks and macroeconomic performance, as measured by GDP growth or volatility, are related. To that goal, we will build on the theory of granularity. This theory reveals that volatility at the level of individual firms can translate into macroeconomic fluctuations if market concentration is high. Moreover, we will explore how regulatory policy affects the link between bank-level and systemic risk. In order to analyze how bank-specific shocks, financial regulation and macroeconomic performance are interrelated, we will address the following research questions:

1. How do credit supply shocks at the bank-level contribute to systemic risk at the regional, country and international level (Module 1)?
2. How does a regulatory change that affects the competitive environment of banks impact bank risk and macroeconomic performance (Module 2)?
3. What role does bank size play for risk at the bank-level and how is this link affected by financial regulation (Module 3)?

Our project results will provide evidence to inform the current debate on micro- and macroprudential regulation. According to the concept of granularity, macroeconomic volatility can be reduced via two channels. On the one hand, microprudential regulation, i.e. regulation at the level of individual (large) banks, can reduce macroeconomic instability: If large banks get less risky, macroeconomic volatility is ceteris paribus mitigated. Our research aims at identifying specific policy tools that help to mitigate the volatility (or risk) at the bank-level. On the other hand, macroprudential policies that monitor the development of bank market structures like concentration are important; the higher concentration, the stronger gets the transmission of bank-level shocks to the aggregate economy. Moreover, concentration and competitive pressures in the banking system impact banks risk-taking behavior and hence bank-specific volatility. Consequently, micro- and macro-prudential regulation should be coordinated in order to address possible trade-offs between stability at the micro- and macroeconomic level. In this project, we aim at addressing these inter-linkages between bank-specific risk, the competitive environment and macroeconomic performance.

Projektleiter: Jun.-Prof. Dr. Felix Noth

Förderer: Weitere Stiftungen; 01.12.2015 - 28.11.2020

Relationship lenders and unorthodox monetary policy: Investment, employment, and resource reallocation effects

We combine a number of unique and proprietary data sources to measure the impact of relationship lenders and unconventional monetary policy during and after the European sovereign debt crisis on the real economy. Establishing systematic links between different research data centers (Forschungsdatenzentren, FDZ) and central banks with detailed micro-level information on both financial and real activity is the stand-alone proposition of our proposal. The main objective is to permit the identification of causal effects, or their absence, regarding which policies were conducive to mitigate financial shocks and stimulate real economic activities, such as employment, investment, or the closure of plants.

Projektleiter: Ph. D. Stefano Colonnello

Förderer: Weitere Stiftungen; 01.12.2015 - 28.11.2020

Law and finance: Firm-creditor relationships, legal institutions, and corporate policies

This research project aims at studying how corporate governance affects firm value and policies, with a focus on firm-creditor relationships and legal institutions. Traditionally, finance-oriented empirical corporate governance research has focused on mechanisms aimed at reducing conflicts between management and shareholders. Interestingly, a large theoretical literature shows that creditors may play an important role in corporate governance even outside of default states. Yet, despite receiving more attention recently, the issue remains relatively underexplored on the empirical side. Another form of governance that remains underexplored is the court system. A well-functioning court system is deemed to be of primary importance for businesses and the economy as a whole by providing timely, competent and unbiased resolution of legal disputes. The goal is thus to understand the role of these governance mechanisms and how recent legal and financial developments interact with them. We plan to investigate these issues along three lines of research.

First, we will look at how financial and legal innovations impact firm-creditor relationships. We plan to empirically examine how the possibility to hedge against credit risk on a firm's debt through credit default swaps (CDS) may alter such relationships by reducing creditors' incentives to monitor the firm. The goal is to understand if creditors reduce their involvement in internal governance and if shareholders adjust other governance mechanisms as a consequence. Moreover, we intend to analyze the real effects of credit derivatives by studying how the availability of CDSs affects corporate investment depending on the ex ante shareholder-creditor balance of power. We will also study the real effects of the changes in firm-creditor relationships induced by the formation of universal banks. If market imperfections make the supply of capital not perfectly elastic, then the formation of universal banks will affect borrowing firms' investment through its impact on the availability of external finance. A positive effect on investment should be observed if universal banks improved firms' access to finance. On the other hand, once they become universal, commercial banks may transition from relational to transactional lending, thus weakening existing bank-firm relationships. Such a transition could be particularly detrimental to opaque borrowers, which rely more on relationship lending. We therefore analyze the immediate effect of the formation of universal banks on the investment policy of non-financial public corporations, paying particular attention to firms that do not access the public debt market.

The second line of research will explore theoretically and empirically how the dynamics of debtor-creditor conflicts shape managerial incentives, and how these in turn influence the firm's cost of debt. We will examine how a firm's exposure to the business cycle influences debtor-creditor conflicts and managerial equity-based incentives. Then, we will study how the composition of managerial compensation affects risk-taking incentives and, in turn, the firm's credit risk. More precisely, we plan to investigate the effect on credit spreads of managerial debt-like compensation, a form of compensation that is deemed to mitigate debtor-creditor conflicts.

The third line of research relates to the role of the court system for firms. The outcome of a legal dispute has two main sources: The applicable laws and the courts that enforce them. A particular challenge in comparing legal systems across countries (or states within federal systems) is that any two countries (or states) will not just feature different court systems but will necessarily also enforce different laws. We aim to overcome this issue by designing empirical strategies that will allow us to identify the effect of courts on firm value and real corporate policies.