

Paul Schempp

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Current Position

Senior Research Fellow, Max Planck Institute for Research on Collective Goods, Bonn, 2014-

Lecturer at University of Bonn, 2016-

Education

Graduate Studies

University of Bonn, Bonn Graduate School of Economics (BGSE), 2009-2015
Ph.D. in Economics ("summa cum laude"), Thesis: "Essays on Financial Stability"
Awarded the Otto-Hahn-Medal of the Max-Planck-Society

Visiting PhD Student

PhD Program in Economics at the University of California, Berkeley, 2008-2009

Undergraduate Studies

University of Bonn, 2005-2009
Diploma in Economics (Ranked 1/181, Overall Grade: 1.0 "with distinction")

References

Martin Hellwig (main advisor)
Director of Max Planck Institute
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Tobias Berg
University of Bonn
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Research Interest

Primary Field: Financial Economics (Financial Intermediation, Financial Stability)
Secondary: Monetary Economics, Applied Economic Theory

Teaching

Lecturer at the University of Bonn:

“Bankmanagement” (B.Sc., Spring 2016)

Teaching Assistant at the University of Bonn:

“Behavioral Economics” (Masters Program, Spring 2012/13/14)

“Econometrics” (PhD, Fall 2011)

“Econometrics” (Masters Program, Fall 2010)

“Introduction to Macroeconomics” (B.Sc., Spring 2007/08)

Honors, Scholarships, and Fellowships

- 2016** Otto-Hahn-Medal of the Max-Planck-Society (7500 Euro)
- 2014** Young Economist Prize at the ECB Forum on Central Banking in Sintra, Portugal for the poster on “Banks, Shadow Banking, and Fragility” (10000 Euro);
Fellow for the 4th Lindau Meeting of Nobel Laureates in Economic Sciences
- 2012-14** Young Researcher Fellowship of the Max-Planck-Society and the Alexander von Humboldt Foundation
- 2010-12** BGSE doctoral grant by the “Deutsche Forschungsgemeinschaft”
(German Research Foundation)
- 2008-09** Grant for studying abroad of the DAAD
(German Academic Exchange Service)
- 2006-09** Scholarship of the “Studienstiftung des Deutschen Volkes”
(German National Academic Foundation)

Research Papers

Regulatory Arbitrage and Systemic Liquidity Crises, (with Stephan Luck)

We derive a novel bank run equilibrium within a standard banking framework. Intermediaries optimally rely on wholesale funding to manage liquidity needs, setting the stage for *systemic* runs: When some intermediaries are subject to a run, they raise funds by liquidating their assets. Fire sales in turn induce an overall scarcity of liquid funds, depressing asset prices and hence deteriorating the funding conditions of other intermediaries in the market for secured wholesale funding. We apply the concept of systemic runs in a model in which regulated banks and shadow banks coexist. First, we show that even without contractual linkages between the two sectors and despite absence of runs on regulated banks, shadow banking panics can cause insolvency of the regulated banking sector. Second, from a social planner’s perspective, the shadow banking sector grows too large in equilibrium due to a pecuniary externality. Third, prudential regulation and central bank interventions change the equilibrium composition of the financial system and affect welfare in non-standard ways.

Presented at: Summer School in Economic Theory of the Econometric Society, Tokyo; Law and Econ workshop at University of Mannheim; Conference on The Role of Liquidity in the Financial System at FED Atlanta; European Winter Meeting of the Econometric Society, Milan

Banks, Shadow Banking, and Fragility, (with Stephan Luck),

previous version: ECB working paper 1726, 2014

Winner of the 2014 Young Economist Prize at the ECB Forum in Sintra, Portugal.

This paper studies how contractual linkages between regulated commercial banking and unregulated shadow banking can contribute to financial instability. We derive three main results: First, the relative size of the shadow banking sector determines the stability of the financial system. A shadow banking sector that is small relative to the rest of the financial system faces maturity, but no liquidity mismatch and cannot be subject to runs. However, if the sector grows too large, liquidity

mismatch also arises and panic-based runs become possible. Second, if regulated commercial banks themselves operate shadow banks and grant liquidity guarantees, the parameter space in which a run on shadow banks may occur may be reduced. However, once the threat of a crisis reappears, a crisis in the shadow banking sector spreads to the commercial banking sector. Third, liquidity guarantees may endogenously emerge and increase the size of the shadow banking sector, potentially sowing the seeds for a financial crisis.

Presented at: Conference on Financial Safety Net, Stockholm; IFS Workshop, Bonn; Macroprudential regulation: from theory to implementation, Amsterdam; ECB Forum, Sintra; Civitas Foundation Seminar, Princeton; Isaac Newton Institute conference on Systemic Risk, Cambridge; Federal Reserve Bank of Atlanta, Atlanta; CREDIT conference, Venice; 21st Annual Meeting of the German Finance Association (DGF), Karlsruhe

Outside Liquidity, Rollover Risk, and Government Bonds, (with Stephan Luck)

This paper discusses whether financial intermediaries can optimally provide liquidity, or whether the government has a role in creating liquidity by supplying government securities. We discuss a model in which intermediaries optimally manage liquidity with outside rather than inside liquidity: instead of holding liquid real assets that can be used at will, banks sell claims on long-term projects to investors. While increasing efficiency, liquidity management with private outside liquidity is associated with a rollover risk. This rollover risk either keeps intermediaries from providing liquidity optimally, or it makes the economy inherently fragile. In contrast to privately produced claims, government bonds are not associated with coordination problems unless there is the prospect that the government may default. Therefore, efficiency and stability can be enhanced if liquidity management relies on public outside liquidity.

Presented at: North American Summer Meeting of the Econometric Society, Los Angeles; DFG Transregio, Bonn, EDP Jamboree, Brussels; 21st Annual Meeting of the German Finance Association (DGF), Karlsruhe

Sovereign Default, Bank Runs, and Contagion, (with Stephan Luck)

We provide a model that unifies the notion of self-fulfilling banking crises and sovereign debt crises. In this model, a bank run can be contagious by triggering a sovereign default, and vice versa. A deposit insurance scheme can eliminate the adverse equilibrium only if the government can repay its debt and credibly insure deposits irrespective of the performance of the financial sector. Moreover, we analyze how banking crises and sovereign defaults can be contagious across countries. We give conditions under which the implementation of a banking union is effective and costless. Implications concerning the current proposals for a banking union in the Euro area are discussed.

Presented at: Spring Meeting of Young Economists, Aarhus; 2nd Workshop in Financial Economics, Mainz; Max Planck Institute for Research on Collective Goods, Bonn; MEF Workshop, Bonn Graduate School of Economics; European Summer Meeting of the Econometric Society, Gothenburg; Asian Meetings of the Econometric Society, Taipei; MPI Advisory Board Meeting, Bonn; CESifo Group Seminar, Munich; 20th Annual Meeting of the German Finance Association (DGF), Wuppertal

Work in progress

On the financing of TLAC: Financial markets, short-term debt, and information contagion, (with Stephan Luck and Tanju Yorulmazer)

We study the optimal capital structure of financial intermediaries in the presence of frictions such as information contagion via financial markets. We propose a model in which excessive maturity mismatch and inefficient runs in a financial institution can be mitigated by a requirement on the total loss-absorbing capacity (TLAC). While the debate has been focused on the level and the composition of TLAC, we analyze the effect of the financing of TLAC on fragility. Under imperfect information, financial markets provide valuable information for the intermediaries' short-term debt holders. When financial markets are sufficiently noisy, the optimal TLAC requirements becomes stricter. Moreover, we show that noise in financial markets arises endogenously when TLAC itself is financed by short-term debt. Hence, optimal regulation requires to ensure that loss absorbing claims are financed long-term. If such regulation is not feasible, a stricter TLAC requirement becomes necessary.

Bank Runs with Inside Money, (with Stephan Luck)

Canonical bank run models assume that consumers withdraw real goods from the banking system and thus destroy inside money. We provide a banking model in which short-term debt holders

can also transfer their claims to other banks when fearing insolvency of their own bank. We show that if there is at least one stable bank in the system, and if there are no interbank frictions, panic-based runs do not occur. Only fundamentally insolvent banks experience an “electronic bank run” in which customers transfer their funds to a solvent bank. If we introduce frictions in interbank trade, panic-based runs on single banks may occur, but no system-wide runs. If there is no fundamentally stable bank, a system-wide run with a complete destruction of inside money becomes possible.

A German Bank in America: WestLB and the US Subprime Market, (with Stephan Luck)

We reconstruct WestLB's off-balance sheet activities prior to the 07-09 crisis. We show how the bank increased its exposure to the US subprime market after losing its state guarantees in 2005. In particular, we indicate that WestLB increased its exposure when the overall market was cooling down, buying particular low quality ABS. Our findings support the “stupid bankers in Dusseldorf” hypothesis after which some investors behaved irrational, allowing the subprime market to grow too large.

Computer Skills

Stata, Matlab, R, L^AT_EX

Languages

German (native), English (fluent), French (basic), Italian (basic)