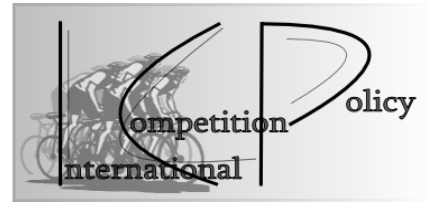


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Der Lehrstuhl VWL 8 „Internationale Wettbewerbsökonomik“ bietet im Sommersemester 2017 ein Seminar für Bachelor-Studierende in den Studiengängen Economics, Internationale Wirtschaft und Entwicklung, Wirtschaftsmathematik und Philosophy & Economics zu dem Thema

MICROECONOMICS OF BANKING: TOWARDS A BETTER UNDERSTANDING OF FINANCIAL CRISES

an. Die weltweite Finanzkrise 2007-2009 war gekennzeichnet durch massive Probleme *adverser Selektion* und *moralischen Risikos* im Finanzsektor. So vergaben zum Beispiel Banken Kredite an kreditunwürdige Gläubiger, da sie diese in verbrieft Form weiterverkaufen konnten. Hohe Managerboni schufen Anreize für Bankmanager, zu hohe Risiken einzugehen, da sie bei Erfolg ihrer riskanten Strategie stark profitierten aber nicht für den Misserfolg der Strategie haften mussten. In dem Seminar werden wir uns mit mikrotheoretischen Modellen des Bankensektors beschäftigen. Neben den oben skizzierten Fragen geht es auch um den grundsätzlichen Zusammenhang von Liberalisierung und Risikostruktur im Bankensektor. Es wird die Frage behandelt, ob ein spezialisierter Finanzsektor mit getrennten Geschäfts- und Investitionsbanken einem System mit Universalbanken vorzuziehen ist.

Den behandelten Modellen liegt oft ein industrieökonomisches Modell des Bankenwettbewerbs zu Grunde. Daher ist eine vorherige erfolgreiche Teilnahme an der Veranstaltung „Markt und Wettbewerb“, „Wettbewerbstheorie und -politik“, oder „Spieltheorie“ hilfreich, aber nicht zwingend erforderlich.

Es stehen insgesamt 20 Seminarplätze zur Verfügung. Übersteigt die Anzahl der Interessenten die verfügbaren Seminarplätze, so werden die Seminarplätze nach der Reihenfolge der Anmeldungen vergeben. Die **Seminarleistung** besteht aus einer **Seminararbeit** (10 - 12 Seiten) und einem **Vortrag** (inklusive Foliensatz) der eigenen Arbeit sowie in der Beteiligung an der allgemeinen Diskussion. Die

Seminarnote ergibt sich als gewichtetes Mittel aus den Leistungen wie folgt: 70% Hausarbeit, 20% Vortrag und 10% Beteiligung an der Diskussion.

- Bachelor-Studierende aus dem Studiengang Philosophy & Economics können das Seminar im E6/Ö6-Bereich (5 Leistungspunkte) anrechnen.
- Economics-Bachelor-Studierende können das Seminar im „Individuellen Schwerpunkt“ oder als „GVWL 2-Seminar“ (GVWL II 5 oder GVWL II 6) anrechnen (5 LP).
- IWE-Studierende können das Seminar als „Seminar zur Internationalen Wirtschaft“ oder im „Individuellen Schwerpunkt“ anrechnen (5 LP).

Seminaranmeldung:

Um sich für das Seminar anzumelden, folgen Sie bitte exakt den nachfolgenden Anweisungen:

1. Schreiben Sie eine E-Mail an fabian.herweg@uni-bayreuth.de
2. Die E-Mail sollte folgenden Inhalt haben:
 - a. *Betreff:* Seminar-Banking
 - b. *Inhalt:* Bitte geben Sie folgende Information als eine durch Kommata abgetrennte Liste (ohne Leerzeichen) an: (Ohne weitere Details, wie z.B. Lieber Herr Herweg)

Nachname, Vorname, Mat-Nr., Studiengang, Modul, Fachsemester, Kreditpunkte, Email-Adresse,Thema_1, Thema_2, Thema_3

Modul bezeichnet den Bereich in dem Sie das Seminar anrechnen lassen wollen. Z.B. IS (Individueller Schwerpunkt), IW (Seminar Internationale Wirtschaft).

Thema_I bezeichnet das Thema welches Sie am I-liebsten bearbeiten möchten. Geben Sie bitte auf jeden Fall drei Themenwünsche an.

Beispiel:
Helfrich,Magdalena,1478249,Econ,GVWL-2,3,5,magdalena.helfrich@uni-bayreuth.de,8,4,10

Die Zuteilung der Themen erfolgt am **Dienstag, 2. Mai 2017**. Sie werden per Email über die Annahme zum Seminar und die Themenzuteilung benachrichtigt. Die Seminaranmeldung gilt ab diesem Tag als **verbindlich**. Die **Seminaranmeldung** ist **ab sofort** möglich.

Organisatorisches/ Termine:

- Vorbesprechung: **Montag, 24. April 2017**, 14:00 Uhr, Raum: **S 50 (RW II)**.
- Anmeldeschluss: **Sonntag, 30. April 2017**
- Blockseminar: Freitag und Samstag, **9. und 10. Juni 2017** (9-18 Uhr)
- Ort: Universität Bayreuth
- Abgabe der Seminararbeit: Donnerstag, **22. Juni 2017** (gedruckt und per E-Mail als ein PDF-Dokument)
- Ansprechpartner: Prof. Dr. Fabian Herweg (fabian.herweg@uni-bayreuth.de)
- Vortragssprache: deutsch
- Leitfaden zum Erstellen einer wissenschaftlichen Arbeit: <http://www.icp.uni-bayreuth.de>

Lehrbücher zu den Themenkomplexen

- Microeconomics of Banking, von Xavier Freixas und Jean-Charles Rochet, MIT Press, 2008.
- Comparing Financial Systems, von Franklin Allen und Douglas Gale, MIT Press, 2001.
- The Prudential Regulation of Banks, von Mathias Dewatripont und Jean Tirole, MIT Press, 1999.

THEMEN

In dem Seminar werden **sieben Themenblöcke** besprochen:

- a) Wettbewerbsintensität und Risikostrukturen im Bankensektor
- b) Vor- und Nachteile eines Bankensektors mit Universalbanken
- c) Anreize zum Halten von Eigenkapital
- d) Verbriefung von Krediten und Risikotransfer
- e) Haltung Liquidier Mittel
- f) Schattenbanken
- g) Weitere Themen

a) Wettbewerbsintensität und Risikostrukturen im Bankensektor

1. Repullo, Rafael (2004): "Capital requirements, market power, and risk-taking in banking", *Journal of Financial Intermediation*, Vol. 13, 156-182.

This paper presents a dynamic model of imperfect competition in banking where the banks can invest in a prudent or a gambling asset. We show that if intermediation margins are small, the banks' franchise values will be small, and in the absence of regulation only a gambling equilibrium will exist. In this case, either flat-rate capital requirements or binding deposit rate ceilings can ensure the existence of a prudent equilibrium, although both have a negative impact on deposit rates. Such impact does not obtain with either risk-based capital requirements or nonbinding deposit rate ceilings, but only the former are always effective in controlling risk-shifting incentives.

2. Cordella, Tito und Yeyati, Eduardo L. (2002): "Financial opening, deposit insurance, and risk in a model of banking competition", *European Economic Review*, Vol. 46, 471-485.

We study the impact of competition on banks' risk-taking behavior under different assumptions about deposit insurance and the dissemination of financial information. While opening increases banks' riskiness, a risk-based deposit insurance or, alternatively, the public disclosure of financial information, are likely to mitigate this effect. Moreover, the limiting cases of uninsured but fully informed depositors, and risk-based full deposit insurance, yield the same equilibrium risk level. Although the welfare consequences of increased competition depend on its impact on risk, financial opening unambiguously improves welfare as we approach the limiting cases.

3. Schliephake, Eva (2016): "Capital Regulation and Competition as a Moderator for Banking Stability", *Journal of Money, Credit, and Banking*, Vol. 48, 1787-1814

Capital regulation forces banks to fund a substantial amount of their investments with equity. This creates a buffer against losses but also increases the cost of funding. If higher funding costs translate into higher loan interest rates, the bank's assets are also likely to become more risky, which may destabilize the lending bank. This paper argues that the level of competition in the banking sector can determine whether the buffer or cost effect prevails. The endogenous level of competition may be crucial in determining the efficiency of capital regulation in undercapitalized banking sectors, with excess capacities and correlated risks.

b) Vor- und Nachteile eines Bankensektors mit Universalbanken

4. Choi, Jay P. und Stefanadis, Christodoulos (2015): „Monitoring, cross subsidies, and universal banking“, *International Journal of Industrial Organization*, Vol. 43, 48-55.

We formalize the idea that a financial conglomerate may utilize commercial banking activities to cross-subsidize investment banking through bundled offers. The investment banking sector entails supra-normal profits due to incentive problems with security underwriting. Universal banks may aim to capture (some of) those profits by providing discounts on commercial loans. This practice has an adverse effect on commercial banks' monitoring incentives, encouraging the pursuit of private rents by entrepreneurs. It also leads to lower underwriting fees and a lower probability of successful public offerings. The social welfare effects of universal banking can be either positive or negative.

5. Kanatas, George und Qi, Jianping (2003): "Integration of Lending and Underwriting: Implications of Scope Economies", *The Journal of Finance*, Vol. 58, 1167-1191.

Informational scope economies provide a cost advantage to universal banks offering "one-stop shopping" for lending and underwriting that enables them to "lock in" their clients' subsequent business. This market power reduces universal banks' incentive, relative to that of specialized investment banks, to apply costly underwriting efforts; consequently, universal banks are less successful in selling their clients' securities. Our results suggest that an integrated financial services market is less innovative than one with specialized intermediaries. Our analysis also identifies

economy, intermediary, and firm characteristics that motivate either the integration or segmentation of bank lending and underwriting.

c) Anreize zum Halten von Eigenkapital

6. Allen, Franklin et al. (2015): “Deposits and bank capital structure”, Journal of Financial Economics, Vol. 118, 601-619.

In a model with bankruptcy costs and segmented deposit and equity markets, we endogenize the cost of equity and deposit finance for banks. Despite risk neutrality, equity capital earns a higher expected return than direct investment in risky assets. Banks hold positive capital to reduce bankruptcy costs, but there is a role for capital regulation when deposits are insured. Banks could no longer use capital when they lend to firms instead of investing directly in risky assets. This depends on whether the firms are public and compete with banks for equity capital or are private with exogenous amounts of capital.

7. Allen, Franklin et al. (2011): “Credit Market Competition and Capital Regulation”, The Review of Financial Studies, Vol. 24, 983-1018.

Empirical evidence suggests that banks hold capital in excess of regulatory minimums. This did not prevent the financial crisis and underlines the importance of understanding bank capital determination. Market discipline is one of the forces that induces banks to hold positive capital. The literature has focused on the liability side. We develop a simple theory based on monitoring to show that discipline from the asset side can also be important. In perfectly competitive markets, banks can find it optimal to use costly capital rather than the interest rate on the loan to commit to monitoring because it allows higher borrower surplus.

d) Verbriefung von Krediten und Risikotransfer

8. Hakenes, Hendrik und Schnabel, Isabel (2010): „Credit risk transfer and bank competition“, Journal of Financial Intermediation, Vol. 19, 308-332.

We present a banking model with imperfect competition in which borrowers' access to credit is improved when banks are able to transfer credit risks. However, the market for credit risk transfer (CRT) works smoothly only if the quality of loans is public information. If the quality of loans is private information, banks have an incentive to grant unprofitable loans that are then transferred to other parties, leading to an increase in aggregate risk. Higher competition increases welfare in the presence of CRT with public information. In contrast, welfare eventually decreases for high levels of competition in the presence CRT with private information due to the expansion of unprofitable loans. This finding coincides with the decrease in credit quality observed during the late years of the credit boom preceding the subprime crisis.

9. Parlour, Christine A. und Plantin, Guillaume (2008): “Loan Sales and Relationship Banking”, The Journal of Finance, Vol. 63, 1291-1314.

Firms raise money from banks and the bond market. Banks sell loans in a secondary market to recycle their funds or to trade on private information. Liquidity in the loan market depends on the relative likelihood of each motive for trade and affects firms' optimal financial structure. The endogenous degree of liquidity is not always socially optimal: There is excessive trade in highly rated names, and insufficient liquidity in riskier bonds. We provide testable implications for prices and quantities in primary and secondary loan markets, and bond markets. Further, we posit that risk-based capital requirements may be socially desirable.

10. Ahn, Jung-Hyun und Breton, Régis (2014): “Securitization, competition and monitoring” Journal of Banking & Finance, Vol. 40, 195-210.

We analyze the impact of loan securitization on competition in the loan market. Using a dynamic loan market competition model where borrowers face both exogenous and endogenous costs to switch between banks, we uncover a competition softening effect of securitization that allows banks to extract rents in the primary loan market. By reducing monitoring incentives, securitization mitigates winner's curse effects in future stages of competition thereby decreasing ex ante competition for initial market share. Due to this competition softening effect, securitization can adversely affect loan market efficiency while leading to higher equilibrium profits for banks. This effect is driven by primary loan market competition, not by the exploitation of informational asymmetries in the secondary market for loans. We also argue that banks can use securitization as a strategic response to an increase in competition, as a tool to signal a reduction in monitoring intensity for the sole purpose of softening ex ante competition. Our result suggests that securitization reforms focusing exclusively on informational asymmetries in markets for securitized products may overlook competitive conditions in the primary market.

e) Haltung Liquider Mittel

11. Heider, Folrian et al. (2015): „Liquidity hoarding and interbank market rates: The role of counterparty risk“, *Journal of Financial Economics*, Vol. 118, 336-354.

We develop a model of interbank lending and borrowing with counterparty risk. The model has two key ingredients. First, liquidity in the banking sector is endogenous, so there is an opportunity cost of holding liquid assets. Second, banks are privately informed about the risk of their long-term assets, which can lead to adverse selection and high interest rates in the interbank market. We identify a novel form of a market break-down, which can lead to liquidity hoarding. It arises because adverse selection in the interbank market changes the opportunity cost of holding liquidity. We use the model to shed light on developments in interbank markets prior to and during the 2007–09 financial crisis, as well as the effectiveness of policy interventions aimed at restoring interbank market activity.

12. Malherbe, Frederic (2014): “Self-Fulfilling Liquidity Dry-Ups”, *Journal of Finance*, Vol. 69, 947-970.

I analyze a model in which holding cash imposes a negative externality: it worsens future adverse selection in markets for long-term assets, which impairs their role for liquidity provision. Adverse selection worsens when potential sellers of long-term assets hold more cash because then fewer sales reflect cash needs, and proportionally more sales reflect private information. Moreover, future market illiquidity makes current cash holding more appealing. This feedback effect may result in hoarding behavior and a market breakdown, which I interpret as a self-fulfilling liquidity dry-up. This mechanism suggests that imposing liquidity requirements on financial institutions may backfire.

13. Ahnert, Toni (2014): “Rollover Risk, liquidity and Macroprudential Regulation”, *Journal of Money, credit and Banking*, Vol. 48, 1753-1785

I study rollover risk in wholesale funding markets when intermediaries hold liquidity ex ante and fire sales may occur ex post. Multiple equilibria exist in a global rollover game: intermediate liquidity holdings support equilibria with both positive and zero expected liquidation. A simple uniqueness refinement pins down the private liquidity choice, which balances the forgone expected return on investment with reduced fragility and costly liquidation. Due to fire sales, liquidity holdings are strategic substitutes. Intermediaries free ride on the holdings of other intermediaries, causing excessive liquidation. To internalize the systemic nature of liquidity, a macroprudential authority imposes liquidity buffers

e) Schattenbanken

14. Gennaioli, Nicola, Andrei Shleifer und Robert W. Vishny (2013): „A Model of Shadow Banking”, Journal of Finance, Vol. 68, 1331-1363.

We present a model of shadow banking in which banks originate and trade loans, assemble them into diversified portfolios, and finance these portfolios externally with riskless debt. In this model: outside investor wealth drives the demand for riskless debt and indirectly for securitization, bank assets and leverage move together, banks become interconnected through markets, and banks increase their exposure to systematic risk as they reduce idiosyncratic risk through diversification. The shadow banking system is stable and welfare improving under rational expectations, but vulnerable to crises and liquidity dry-ups when investors neglect tail risks.

15. Plantin, Guillaume (2014): “Shadow Banking and Bank Capital Regulation”, Review of Financial Studies, Vol. 28, 146-175.

Banks are subject to capital requirements because their privately optimal leverage is higher than the socially optimal one. This is in turn because banks fail to internalize all costs that their insolvency creates for agents who use their money-like liabilities to settle transactions. If banks can bypass capital regulation in an opaque shadow banking sector, it may be optimal to relax capital requirements so that liquidity dries up in the shadow banking sector. Tightening capital requirements may spur a surge in shadow banking activity that leads to an overall larger risk on the money-like liabilities of the formal and shadow banking institutions.

16. Górnicka, Lucyna A. (2016): “Banks and Shadow Banks: Competitors or Complements? Journal of Financial Intermediation, Vol. 27, 118-131.

Bank managers can buy risky assets through a regulated bank and through an off-balance sheet special purpose vehicle (SPV). The choice of the preferred entity depends on whether bank managers can lower the cost of SPV funding by guaranteeing SPV returns with bank proceeds. When there are no guarantees, using the SPV is more profitable for high levels of the minimum capital requirement, in which case the SPV crowds out the bank. Contrary, when bank managers guarantee SPV returns, the bank needs to operate for the SPV to take advantage of recourse to the bank's balance sheet also when the capital requirement is high. The bank and the SPV intermediation become complements.

f) Weitere Themen

17. Calzolari, Giacomo und Loranth, Gyongyi (2011): „Regulation of multinational banks: A theoretical inquiry“, Journal of Financial Intermediation, Vol. 20, 178-198.

This paper examines national regulators' incentives to intervene in a multinational bank's activities and the extent to which these incentives differ with the bank's foreign representation choice (branch or subsidiary). Shared liability leads to higher incentives for intervention than legal separation. Cross-border deposit insurance, on the other hand, yields less intervention than when regulators compensate local depositors only. Based on these results, we derive implications for multinational banks' and regulators' preference on foreign expansion and representation.

18. Hakenes, Hendrik und Schnabel, Isabel (2014): “Bank Bonuses and Bailouts” Journal of Money, Credit and Banking, Vol. 46, 259-287.

This paper shows that bonus contracts may arise endogenously as a response to agency problems within banks, and analyzes how compensation schemes change in reaction to anticipated bailouts. If there is a risk-shifting problem, bailout expectations lead to steeper bonus schemes and even more risk taking. If there is an effort problem, the compensation scheme becomes flatter and effort decreases. If both types of agency problems are present, a sufficiently large increase in bailout perceptions makes it optimal for a welfare-maximizing regulator to impose caps on bank bonuses. In contrast, raising managers' liability can be counterproductive.

19. Bolton, Patrick, Tano Santos und Jose A. Scheinkman (2016): “Cream-Skimming in Financial markets”, Journal of Finance, Vol. 71, 709-736.

We propose a model in which investors may choose to acquire costly information that identifies good assets and purchase these assets in opaque (OTC) markets. Uninformed investors access an asset pool that has been cream-skimmed by informed investors. When the quality composition of assets for sale is fixed, there is too much information acquisition and the financial industry extracts excessive rents. In the presence of moral hazard in origination, the social value of information varies inversely with information acquisition. Low quality origination is associated with large rents in the financial sector. Equilibrium acquisition of information is generically inefficient.

20. Biais, B., Florian Heider und Marie Hoerova (2016): “Risk-sharing or Risk-Taking? Counterparty Risk, Incentives, and Margins.

Derivatives activity, motivated by risk-sharing, can breed risk-taking. Bad news about the risk of an asset underlying a derivative increases protection sellers’ expected liability and undermines their risk-prevention incentives. This limits risk-sharing, creates endogenous counterparty risk, and can lead to contagion from news about the hedged risk to the balance sheet of protection sellers. Margin calls after bad news can improve protection sellers’ incentives and in turn enhance risk-sharing. Central clearing can provide insurance against counterparty risk but must be designed to preserve risk-prevention incentives.