

CURRENT POSITION: Associate Professor of Finance at Harvard Business School

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DATE OF BIRTH:

September 2, 1972

SEX: F

CITIZENSHIP: British

UNDERGRADUATE STUDIES:

Oxford University, St John's College
B.A. in Philosophy, Politics and Economics (1st class), June 1993

GRADUATE STUDIES:

Oxford University, Nuffield College, UK
October 1993 – 1995 M.Phil. in Economics
October 1995 – 1999 D.Phil. in Economics

THESIS TITLE (OXFORD):

Thesis Supervisor

Strategic Behaviour Under Uncertainty (May 2000)

Paul Klemperer

Université de Toulouse, France

European Diploma in Master's Level Economics (DEEQA), 1996

October 1996 - 2001 PhD. in Economics

THESIS TITLE (TOULOUSE):

Thesis Supervisor

Essays in Corporate Finance (December 2001)

Jean Tirole

TEACHING AND RESEARCH AREAS:

PRIMARY FIELDS:

Corporate Finance, Microeconomic Theory, Industrial Organization.

SECONDARY FIELDS:

Economics of Uncertainty, Contract Theory, Game Theory.

TEACHING EXPERIENCE:

Tutorials in Mathematics for Economists and Core Micro- and Macroeconomics to Oxford University Undergraduates.
Lectures in Core Mathematics and in the Economics of Uncertainty, Economics Doctoral Programme, Oxford.
Finance 1 and 2 to Harvard Business School MBAs. 3rd year Undergraduate game theory, 1st semester microeconomics to
Masters in Economics and financial contracting to 2nd year Masters in Economics and Finance at the Université de Lausanne.

VISITING POSITIONS:

MEDS, Northwestern University, (Jan-Mar. 2001)

Massachusetts Institute of Technology, Dept. of Economics (1998-9)

HONOURS, SCHOLARSHIPS AND FELLOWSHIPS:

HONOURS:

2004 Norminated for 2003 Brattle Prize for best paper in the 2003 *Journal of Finance*
(for joint work with Giacinta Cestone)
2002 CEPR Research Affiliate, Financial Economics Section, renewed 2006
2001 CEPR Research Affiliate, Industrial Organization Section, renewed 2005
2000 Young Economist Prize, European Economic Association Meeting (for joint work with Peter Esó)
1995 George Webb Medley Prize for Best Results in Master's Economics Final Examinations, Oxford
1993 George Webb Medley Prize for Best Results in Undergraduate Economics Final Examinations,
Oxford
1991 Distinction in 1st Year Examinations in Philosophy, Politics and Economics, Oxford

SCHOLARSHIPS & FELLOWSHIPS:

- 1999 - 2002 Nuffield College, *Prize Research Fellowship*
1998 - 1999 Fulbright Commission, *Scholarship to study in the US*
1996 - 1998 European Union, *Marie Curie Scholarship to study in Toulouse*
1995 - 1996 Economic and Social Research Council, *Doctoral Tuition and Maintenance Award*
1993 - 1995 Economic and Social Research Council, *Master's Tuition and Maintenance Award*

PUBLISHED PAPERS:

Anti-Competitive Financial Contracting: The Design of Financial Claims (with Giacinta Cestone)
Journal of Finance, 58, no. 5 (October 2003): 2109-2141, nominated for 2003 Brattle Prize for best corporate finance paper in the 2003 *Journal of Finance*.

Precautionary Bidding in Auctions (with Peter Esó)
Econometrica, 72, no. 1 (January 2004): 77-92.

Crises and Capital in Banking (with Alan Morrison) CEPR Discussion Paper no. 4364
American Economic Review, 95(5), (December 2005):1548-1572.

Foreclosure with Incomplete Information CEPR Discussion Paper no. 3942
Journal of Economics and Management Strategy, 16(2), Summer 2007.

Do Vertical Mergers Facilitate Collusion? (with Volker Nocke) CEPR Discussion Paper no. 4186
American Economic Review 97(4), September 2007, 1321-1339.

Prudence in Bargaining: the Effect of Uncertainty on Bargaining Outcomes
Games and Economic Behavior, 62(1), January 2008, 211-23.

Level Playing Fields in International Financial Regulation (with Alan Morrison)
Forthcoming at the Journal of Finance

Bargaining with Imperfect Enforceability (with Mark Williams)
Forthcoming at the Rand Journal of Economics

PAPERS IN THE REFEREEING PROCESS: Available at <http://www.people.hbs.edu/lwhite>

Good Cop, Bad Cop: Monitoring and Liquidation Incentives in Corporate Finance (with Alexander Gumbel)
Revise and resubmit (3rd round) at the Journal of Financial Intermediation

Is Deposit Insurance a Good Thing, And if so, Who Should Pay for it? (with Alan Morrison) CEPR Discussion Paper no. 4424

When the Punishment must fit the Crime: Remarks on the Failure of Simple Penal Codes in Extensive-Form Games (with George Mailath and Volker Nocke) PIER Working Paper 04-039, University of Pennsylvania

Competition for Scarce Resources (with Peter Esó and Volker Nocke)

WORK IN PROGRESS:

Wage Bargaining and Inflation Uncertainty (with Hans-Joachim Voth)

Notes on the Impact of Wealth in Bargaining (with Chen-Ying Huang)

Notes on the Trading of Votes (with Peter Esó)

Reputational Contagion and Optimal Regulatory Forebearance (with Alan Morrison)

Why do agents concerned with their reputation maximise IRR not NPV? (with Alan Morrison)

The Design of Financial Claims in Venture Capital Syndicates (with Giacinta Cestone and Josh Lerner)

REFEREEING ACTIVITY

American Economic Review, Econometrica, Economic Journal, European Economic Review, International Economic Review, International Journal of Industrial Organization, Journal of the European Economic Association, Journal of Economics and Management Strategy, Journal of Industrial Economics, Journal of Finance, Journal of Financial Economics, Journal of Financial Intermediation, Journal of Financial Services Research, Journal of Political Economy, Quarterly Journal of Economics, Rand Journal of Economics, Review of Economic Studies, Review of Finance.

CONFERENCE AND SEMINAR PRESENTATIONS AND DISCUSSIONS 2001-7

Presentations

- 2007 Oxford Finance Symposium
- 2006 Tor Vergata Conference (Rome)
Universitat van Amsterdam
University of St Gallen
University of Zurich
European Meeting of the Econometric Society
Bi-annual Meeting of the Financial Intermediation Research Society
- 2005 University of Bern
RICAFA meeting, Turin
Olin School of Business, Washington University, St Louis
London Business School
Tanaka School of Business, Imperial College, University of London
University of California at Los Angeles
University of Wisconsin at Madison
Boston University
International Industrial Organization Conference (Atlanta)
- 2004 HEC, Université de Lausanne
Carnegie Mellon University
Harvard-MIT Industrial Organization Workshop
GREMAQ, Université de Toulouse
European Summer Symposium in Economic Theory (Gerzensee, Switzerland)
European Summer Symposium in Financial Markets (Gerzensee, Switzerland)
- 2003 NHH Norwegian School of Business (Bergen, Norway)
University of Michigan Industrial Organization Seminar
University of Wisconsin Madison
University of Helsinki (Finland)
CEPR Conference on Competition Policy and Regulation in International Markets (Madrid)
Duke-Northwestern-Texas Industrial Organization Conference
- 2002 Universität Mannheim (Germany)
Stockholm School of Economics (Sweden)
Univerité Libre de Bruxelles (Belgium)
European Summer Symposium in Economic Theory (Gerzensee, Switzerland)
European Summer Symposium in Financial Markets (Gerzensee, Switzerland)
- 2001 Boston University
Chicago Graduate School of Business
Columbia University
Kellogg School of Management (Northwestern University)

Kennedy School of Government (Harvard University)
MIT Sloan School of Management
Stanford Graduate School of Business
Stern School of Business (New York University)
University College London
University of Essex
University of Southern California
WZB Berlin
Yale University
European Summer Symposium in Economic Theory (Gerzensee, Switzerland)
European Finance Association Meeting 2001 (Barcelona)
European Economic Association Meetings 2001 (Lausanne)
London School of Economics: Strategic Interactions in Relationship Finance: Bank Lending and Venture Capital
Royal Economic Society Meeting 2001 (Durham, UK)

Papers Discussed

- 2007 European Winter Corporate Finance Conference “Optimal Resolutions of Financial Distress by Contract”
- 2006 Conference on Public Versus Private Ownership of Financial Institutions “Multiple Goals and Ownership Structure: Effects on the Performance of Spanish Banks”
CEPR Conference on Innovation and Antitrust “Firms Merge in Response to Constraints”
RICAFE Conference (LSE) “Venture Capital Contracting and Syndication: An Experiment in Computational Corporate Finance”
FIRS Conference “Credit Market Competition and Capital Regulation”
Swiss IO Day “Are there Merger Waves After All?”
- 2005 Econometric society Winter Meetings “Buyer Groups as Strategic Commitments”
International Industrial Organization Society Meeting (Atlanta) “Media Competition and Commercial Regulation”
- 2004 Entrepreneurship, Venture Capital and IPOs Conference (Tuck School of Business) “Investor Sentiment and Pre-Issue Markets”
Financial Intermediation Research Society Conference (Capri) “Asymmetric Information and Financing with Convertibles” and “Financial Networks: Contagion, Commitment and Private Sector Bailouts”
- 2003 Entrepreneurship, Venture Capital and IPOs Conference (Stern School of Business) “IPOs, Acquisitions, and the Use of Convertible Securities in Venture Capital”
CEPR Conference on Personnel Economics (Stockholm, Sweden) “Access to Credit, Risk Taking and Organizational Change”
CEPR Conference on Personnel Economics (Toulouse, France) “The Costs and Benefits of Symbolic Differentiation in the Workplace”
- 2002 CEPR Conference on European Corporate Governance and the New Economy “Venture Capital Around the World”

Conferences Organised

- 2006 and 2007 Swiss IO Day
2006 and 2007 European Winter Corporate Finance Conference
2007 European Summer Symposium in Economic Theory

REFERENCES:

Professor Philippe Aghion
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Research Interests and Papers

I am a microeconomic theorist. My main research interests are [banking](#), [corporate finance](#), [bargaining](#), and [industrial organisation](#). I am also interested in contract and information economics, [auctions](#), and the theory of organisations.

If you want to see a copy of my CV, click [here](#). Abstracts and links to my papers are provided below. Please feel free to [contact me](#) with any questions.

Corporate Finance

Anti-Competitive Financial Contracting

Joint work with [Giacinta Cestone](#), CSEF, Salerno, Italy

This paper presents the first model where entry deterrence takes place through *financial* rather than *product-market* channels. In standard models of the interaction between product and financial markets, a firm's use of financial instruments deters entry by affecting *product market* behaviour,

whereas in our model entry deterrence occurs by affecting the *credit market* behaviour of investors towards entrant firms. We find that in order to deter entry, the claims held on incumbent firms should be sufficiently risky, i.e. equity, in contrast to the standard Brander-Lewis (1986) result that debt deters entry. The model sheds light on the policy debate on the separation of banking as to whether banks should be permitted to hold equity in firms. It also provides an explanation for why venture capitalists hold *automatically* convertible securities in start-up firms.

Keywords: Coase Problem, Over-funding, Venture Capital, Convertible Debt

JEL Classification:G3

Click [here](#) to download a .pdf version of this paper, which appeared in the *Journal of Finance*, October 2003.

Good cop, Bad Cop: Complementarities between Debt and Equity in Disciplining Management

Joint work with [Alexander Gümbel](#), Saïd Business School and Lincoln College Oxford

In this paper we examine how the quantity of information generated about firm prospects can be improved by splitting a firm's cash flow into a 'safe' claim (debt) and a 'risky' claim (equity). The former, being relatively insensitive to upside risk, provides a commitment to shut down the firm in the absence of good news. This commitment provides the latter a greater incentive to collect information than a monitor holding the aggregate claim would have. Thus debt and equity are shown to be complementary instruments in firm finance. We show that stock markets can play a useful role in transmitting information from equity to debt holders. This provides a novel argument as to why information contained in stock prices affects the real value of a corporation. It also allows us to make empirical predictions regarding the relation between shareholder dispersion, market liquidity and capital structure.

Keywords: Debt, Equity, Soft Budget Constraint, Information Production.

JEL Classification: D82, G3

Click [here](#) to download a .pdf version of this paper.

Banking

Crises and Capital Requirements in Banking

previously entitled: The Role of Capital Adequacy Requirements in Sound Banking Systems

Joint work with [Alan Morrison](#), Saïd Business School, Oxford.

We analyse a model in which there is both adverse selection of and moral hazard by banks. The regulator has two tools at her disposal to combat these problems - she can audit banks to learn their type prior to giving them a licence, and she can impose capital adequacy requirements. We show that, contrary to existing practice, the tightness of capital adequacy requirements should be decreasing in the perceived competence of the regulator. We also show that if and only if the regulator has a sufficiently poor reputation, the banking system exhibits multiple equilibria so that crises of confidence in the banking system can occur.

Click [here](#) to download a .pdf version of this paper, which appeared in the *American Economic Review*, December 2005.

Is Deposit Insurance a Good Idea, and if so, Who Should Pay for it?

Joint work with [Alan Morrison](#), Saïd Business School, Oxford.

Deposit insurance schemes are becoming increasingly popular around the world and yet there is little understanding of how they should be designed and what their consequences are. In this model we provide a new rationale for the provision of deposit insurance. We analyse a model in which depositors choose between placing their funds with banks and self-managing them. Bankers have valuable but costly project management skills and the banking sector exhibits both adverse selection and moral hazard. Depositors fail fully to account for the social benefits which accrue from bank management of projects and as a consequence there is under-depositing. The regulator can correct this market failure by providing deposit insurance. Contrary to received opinion, we find that deposit insurance should be funded not by bankers or depositors but through general taxation.

Click [here](#) to download a .pdf version of this paper.

Level Playing Fields in International Financial Regulation

Joint work with [Alan Morrison](#), Saïd Business School, Oxford.

We study a model of featuring two economies with adverse selection of and moral hazard by bankers. We demonstrate that in such a set-up, removing barriers to capital flow between economies may reduce total welfare by harming the average efficiency of the banking sector. With international capital mobility, bankers who fail to obtain a charter in the economy with the better regulator will be able to turn to the lower quality regulators for a licence, so worsening the pool of banks in the already poorly regulated economy. This effect can be countered by setting level capital requirements across economies, which penalises bankers operating under the higher quality regulator, or it can be ignored, which penalises bankers under the lower quality regulator. We determine the circumstances under which each policy is preferred and comment upon the optimality of an international "level playing field" for capital requirements.

Keywords: Bank regulation, capital, multinational banks, exchange controls, international financial regulation, level playing field.

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Bargaining

Prudence in Bargaining

We investigate the outcome of Rubinstein's (1982) alternating-offer bargaining game when noise is added to a player's pay-off. We find that a risk-averse player typically increases his equilibrium receipts when his pay-off is made risky. This is because the presence of risk makes individuals behave "more patiently" in bargaining, analogously to the precautionary saving literature. We show that the effect of risk on receipts can be sufficiently strong that a decreasingly risk-averse player may be better off receiving a risky pay-off than a certain pay-off.

JEL Classification: C71, C72, C78, C90, D23, D80

Keywords: Nash Bargaining, Rubinstein Bargaining, Uncertainty, Prudence.

Click [here](#) to download a .pdf version of this paper.

Bargaining with Imperfect Enforcement

Joint work with [Mark Williams](#), NERA, London.

The game-theoretic bargaining literature insists on non-cooperative bargaining procedure but allows cooperative implementation of agreements. The effect of this is to allow free-reign of bargaining power with no check upon it. In reality, courts cannot implement agreements costlessly, and parties often prefer to use non-cooperative implementation. We present the first model of non-cooperative implementation of bargains, showing that this has a substantial impact in limiting the inequality of agreements, and results in a non-monotonicity of the discount rate. The general need to maintain incentives for co-operation means that apparently “other-regarding” elements must enter the utility function. Thus we explain why experimental subjects might have a rule of thumb of proposing “fair” bargains. The model also explains why some parties may deliberately write incomplete contracts which cannot be enforced in a court of law.

JEL Classification: C72, C78, C91, D23

Keywords: Non-Cooperative Bargaining, Enforcement, Strength in Weakness, Incomplete Contracts.

Click [here](#) to download a .pdf version of this paper.

Notes on the Impact of Wealth in Bargaining

Joint work with Chen-Ying Huang, National Taiwan University.

We provide the first investigation of the politically important question of whether wealthy individuals are advantaged or disadvantaged in bargaining. We show that in a simple Nash-Rubinstein style model, wealth is a disadvantage because it reduces boldness. We then develop a model in which consumption of wealth can occur independently of agreement over pie. We show that in this model, if there are no credit constraints, wealth has no impact on bargaining power. Credit constraints reduce bargaining power, however, and wealth can help to alleviate these. Finally we show that when income is perishable so it is impossible either to save or borrow, wealth is an advantage when it reduces absolute risk aversion.

This paper is not yet available to download.

Inflation Uncertainty and the Wage Bargain

Joint work with [Hans-Joachim Voth](#), Universitat Pompeu Fabra, Barcelona.

Trade unions often seem to behave in a more militant fashion when inflation rises. We provide the first theory as to why this should be so. We argue that uncertainty about the rate of inflation makes each extra dollar more valuable to the trade union, thus increasing its desire to hold out for a larger share of the pie. Thus inflation uncertainty increases trade union bargaining power. By contrast, when firms are free to set employment after price levels are known, uncertainty reduces firm bargaining power. Thus inflation leads to a redistribution from capital to labour. We test the theory using a data set of G7 countries since 1973.

This paper is not yet available to download.

Industrial Organisation

Foreclosure with Incomplete Information

In this paper we investigate the robustness of the widely-used new foreclosure doctrine and its associated welfare implications to the introduction of incomplete information. In particular, we make the realistic assumption that the upstream firm's marginal cost is private information, unknown to the downstream firms. We find that this simple modification dramatically affects the "over-selling" result which characterises the previous literature. With incomplete information, high-cost firms will often "under-sell" in equilibrium, that is, supply less than their monopoly output. Low-cost firms continue to over-sell, so all types of firms have a reason to foreclose downstream, but only for low-cost types is this necessarily harmful. For high-cost types foreclosure can be Pareto-improving, resulting in higher output, profits and consumer surplus.

Click [here](#) to download a .pdf version of this paper, which has been accepted by the *Journal of Economics and Management Strategy*.

Do Vertical Mergers Facilitate Upstream Collusion?

Joint work with [Volker Nocke](#), University of Pennsylvania.

In this paper we investigate the impact of vertical mergers on upstream firms' ability to sustain collusion. We show in a number of models that the net effect of vertical integration is to facilitate collusion. Several effects arise. When upstream offers are secret, vertical mergers facilitate collusion through the operation of an outlets effect: Cheating unintegrated firms can no longer profitably sell to the downstream affiliates of their integrated rivals. Vertical integration also facilitates collusion through a reaction effect: the vertically integrated firm's 'contract' with its downstream affiliate can be more flexible and thus allows a swifter reaction in punishing defectors. Offsetting these two effects is a possible punishment effect which arises if the integrated structure is able to make more profits in the punishment phase than a disintegrated structure.

Keywords: vertical mergers, collusion

JEL Classification: L13, L42

Click [here](#) to download a .pdf version of this paper.

When the Punishment Must Fit the Crime: Remarks on the Failure of Simple Penal Codes in Extensive-Form Games

Joint work with [George Mailath](#), University of Pennsylvania, and [Volker Nocke](#), University of Pennsylvania.

In repeated normal-form games, *simple penal codes* (Abreu 1986, 1988) permit an elegant characterization of the set of subgame-perfect outcomes. We show that the logic of simple penal codes fails in repeated *extensive*-form games. We provide two examples illustrating that a subgame-perfect outcome may be supported *only* by a profile with the property that the continuation play after a deviation is tailored not only to the identity of the deviator, but also to the nature of the deviation.

Keywords: Simple Penal Code, Subgame Perfect Equilibrium, Repeated Extensive Game, Optimal Punishment

JEL Classification Codes: C70, C72, C73.

Click [here](#) to download a .pdf version of this paper.

Auctions

Precautionary Bidding in Auctions

Joint work with [Peter Esö](#), MEDS Department, Kellogg School of Management

We analyze bidding behavior in auctions when risk-averse bidders bid for an object whose value is risky. We show that, as risk increases, decreasingly risk-averse bidders will reduce their bids by more than the risk premium. Ceteris paribus, bidders will be better off bidding for a more risky object in first-price, second-price, English, and all-pay auctions with affiliated private values. We then extend the results to common value settings. This "precautionary bidding" effect arises because the expected marginal utility of income increases with risk, so bidders are reluctant to bid so highly. We show that precautionary bidding also arises in response to common values risk. This precautionary bidding behavior can make decreasingly risk-averse bidders better off when they face a "winner's curse" than when they do not.

Click [here](#) to download a .pdf version of this paper, which appeared in *Econometrica* in January 2004.

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Research Interests and Papers

I am a microeconomic theorist. My main research interests are [banking](#), [corporate finance](#), [bargaining](#), and [industrial organisation](#). I am also interested in contract and information economics, [auctions](#), and the theory of organisations.

If you want to see a copy of my CV, click [here](#). Abstracts and links to my papers are provided below. Please feel free to [contact me](#) with any questions.

Corporate Finance

Anti-Competitive Financial Contracting

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of the interaction between product and financial markets, a firm's use of financial instruments deters entry by affecting *product market* behaviour, whereas in our model entry deterrence occurs by affecting the *credit market* behaviour of investors towards entrant firms. We find that in order to deter entry, the claims held on incumbent firms should be sufficiently risky, i.e. equity, in contrast to the standard Brander-Lewis (1986) result that debt deters entry. The model sheds light on the policy debate on the separation of banking as to whether banks should be permitted to hold equity in firms. It also provides an explanation for why venture capitalists hold *automatically* convertible securities in start-up firms.

Keywords: Coase Problem, Over-funding, Venture Capital, Convertible Debt

JEL Classification:G3

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Good cop, Bad Cop: Complementarities between Debt and Equity in Disciplining Management

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In this paper we examine how the quantity of information generated about firm prospects can be improved by splitting a firm's cash flow into a `safe' claim (debt) and a `risky' claim (equity). The former, being relatively insensitive to upside risk, provides a commitment to shut down the firm in the absence of good news. This commitment provides the latter a greater incentive to collect information than a monitor holding the aggregate claim would have. Thus debt and equity are shown to be complementary instruments in firm finance. We show that stock markets can play a useful role in transmitting information from equity to debt holders. This provides a novel argument as to why information contained in stock prices affects the real value of a corporation. It also allows us to make empirical predictions regarding the relation between shareholder dispersion, market liquidity and capital structure.

Keywords: Debt, Equity, Soft Budget Constraint, Information Production.

JEL Classification: D82, G3

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Banking

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crises of confidence in the banking system can occur.

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Is Deposit Insurance a Good Idea, and if so, Who Should Pay for it?

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Deposit insurance schemes are becoming increasingly popular around the world and yet there is little understanding of how they should be designed and what their consequences are. In this model we provide a new rationale for the provision of deposit insurance. We analyse a model in which depositors choose between placing their funds with banks and self-managing them. Bankers have valuable but costly project management skills and the banking sector exhibits both adverse selection and moral hazard. Depositors fail fully to account for the social benefits which accrue from bank management of projects and as a consequence there is under-depositing. The regulator can correct this market failure by providing deposit insurance. Contrary to received opinion, we find that deposit insurance should be funded not by bankers or depositors but through general taxation.

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Level Playing Fields in International Financial Regulation (working title)

Joint work with [Alan Morrison](#), Saïd Business School, Oxford.

We study a model of featuring two economies with adverse selection of and moral hazard by bankers. We demonstrate that in such a set-up, removing barriers to capital flow between economies may reduce total welfare by harming the average efficiency of the banking sector. With international capital mobility, bankers who fail to obtain a charter in the economy with the better regulator will be able to turn to the lower quality regulators for a licence, so worsening the pool of banks in the already poorly regulated economy. This effect can be countered by setting level capital requirements across economies, which penalises bankers operating under the higher quality regulator, or it can be ignored, which penalises bankers under the lower quality regulator. We determine the circumstances under which each policy is preferred and comment upon the optimality of an international "level playing field" for capital requirements.

Keywords: Bank regulation, capital, multinational banks, exchange controls, international financial regulation, level playing field.

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individuals behave “more patiently” in bargaining, analogously to the precautionary saving literature. We show that the effect of risk on receipts can be sufficiently strong that a decreasingly risk-averse player may be better off receiving a risky pay-off than a certain pay-off.

JEL Classification: C71, C72, C78, C90, D23, D80

Keywords: Nash Bargaining, Rubinstein Bargaining, Uncertainty, Prudence.

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The Equality of Bargaining Outcomes

Joint work with Mark Williams, NERA, London.

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JEL Classification: C72, C78, C91, D23

Keywords: Non-Cooperative Bargaining, Enforcement, Strength in Weakness, Incomplete Contracts.

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Inflation Uncertainty and the Wage Bargain

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Trade unions often seem to behave in a more militant fashion when inflation rises. We provide the first theory as to why this should be so. We argue that uncertainty about the rate of inflation makes each extra dollar more valuable to the trade union, thus increasing its desire to hold out for a larger share of the pie. Thus inflation uncertainty increases trade union bargaining power. By contrast, when firms are free to set employment after price levels are known, uncertainty reduces firm bargaining power. Thus inflation leads to a redistribution from capital to labour. We test the theory using a data set of G7 countries since 1973.

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Industrial Organisation

Foreclosure with Incomplete Information

In this paper we investigate the robustness of the widely-used new foreclosure doctrine and its associated welfare implications to the introduction of incomplete information. In particular, we make the realistic assumption that the upstream firm's marginal cost is private information, unknown to the downstream firms. We find that this simple modification dramatically affects the "over-selling" result which characterises the previous literature. With incomplete information, high-cost firms will often "under-sell" in equilibrium, that is, supply less than their monopoly output. Low-cost firms continue to over-sell, so all types of firms have a reason to foreclose downstream, but only for low-cost types is this necessarily harmful. For high-cost types foreclosure can be Pareto-improving, resulting in higher output, profits and consumer surplus.

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Do Vertical Mergers Facilitate Upstream Collusion?

Joint work with [Volker Nocke](#), University of Pennsylvania.

In this paper we investigate the impact of vertical mergers on upstream firms' ability to sustain collusion. We show in a number of models that the net effect of vertical integration is to facilitate collusion. Several effects arise. When upstream offers are secret, vertical mergers facilitate collusion through the operation of an outlets effect: Cheating unintegrated firms can no longer profitably sell to the downstream affiliates of their integrated rivals. Vertical integration also facilitates collusion through a reaction effect: the vertically integrated firm's 'contract' with its downstream affiliate can be more flexible and thus allows a swifter reaction in punishing defectors. Offsetting these two effects is a possible punishment effect which arises if the integrated structure is able to make more profits in the punishment phase than a disintegrated structure.

Keywords: vertical mergers, collusion

JEL Classification: L13, L42

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Auctions

Precautionary Bidding in Auctions

Joint work with [Peter Esö](#), MEDS Department, Kellogg School of Management

We analyze bidding behavior in auctions when risk-averse bidders bid for an object whose value is risky. We show that, as risk increases, decreasingly risk-averse bidders will reduce their bids by more than the risk premium. Ceteris paribus, bidders will be better off bidding for a more risky object in first-price, second-price, English, and all-pay auctions with affiliated private values. We then extend the results to common value settings. This "precautionary bidding" effect arises because the expected marginal utility of income increases with risk, so bidders are reluctant to bid so highly. We show that precautionary bidding also arises in response to common values risk. This precautionary bidding behavior can make decreasingly risk-averse bidders better off when they face a "winner's curse" than when they do not.

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