#### Lægemiddelpriser i Danmark

Oktober 2007

#### **Deltagere**

- Ulrich Kaiser, Professor i økonomi ved Syddansk Universitet Odense og CEBR
- Thomas Rønde, Lektor i økonomi ved Københavns Universitet og CEBR
- Udenlandsk gæsteforsker: Margaret Kyle, London Business School
- Medicinsk rådgiver: Johannes Schmid, Læge ved Odense Universitets Hospital

#### Motivation

Markederne for lægemidler er samfundsøkonomisk vigtige. De samlede danske udgifter til lægemidler udgjorde mere end DKK 17 milliarder i 2006, og udgifterne forventes at stige yderligere i de kommende årtier som befolkningen bliver ældre og nye og dyrere lægemidler introduceres. Det spiller derfor en central rolle både for den samlede økonomiske velfærd og for det offentlige udgiftstryk, at lægemidler bliver solgt på velfungerende markeder med effektiv konkurrence.

#### Markederne for lægemidler

Som et led i bestræbelserne på at bremse medicinudgifterne, har Danmark indført et system, som skal sikre ensartede og lave forbrugerpriser på lægemidler. Lægemiddelleverandørerne indberetter hver anden fredag priserne på deres produkter samt den mængde, som de kan levere, til Lægemiddelstyrelsen. Priserne bliver offentliggjort den efterfølgende mandag. De annoncerede priser har stor betydning for de solgte mængder, da apotekerne har pligt til at udlevere det billigste produkt indenfor en bestemt produktgruppe (produkter som er substituerbare og som typisk er baseret på det samme aktivstof). Forbrugerne kan dog også vælge et dyrere produkt mod højere egenbetaling. De indberettede priser offentliggøres på hjemmesiden www.medicinpriser.dk, så der er høj pristransparens på markederne.

#### **Datasættet**

Hjemmesiden <u>www.medicinpriser.dk</u> indeholder detaljeret information om de danske markeder for lægemidler. Her finder man priserne på mere end 11.000 produkter i perioden februar 2002 til juli 2007. Over halvdelen af produkterne bliver solgt i hele perioden, og den gennemsnitlige tid på markedet er over 2 år. Det er ud fra den angivne

<sup>&</sup>lt;sup>1</sup> www.medicinpriser.dk

produktgruppe muligt at se, hvilke produkter som er substitutter. Priserne på de forskellige produkter indenfor en produktgruppe er sammenlignelige på tværs af pakningsstørrelser og styrker, da mængderne kan omregnes til priser per aktivstof-gram eller aktivstof-milliliter. Udover de frit tilgængelige prisdata, som vi allerede har brugt til nogle foreløbige analyser, forventer vi at få adgang til: 1) De solgte mængder i perioden februar 2002 – juli 2007, og 2) de mængder som leverandørerne garanterer at kunne levere i den pågældende prisperiode. Vi har kontakt til Lægemiddel Industri Foreningen, og regner med at få adgang til data via dem.<sup>2</sup>

#### **Forskningsprojektet**

Det ovenfor beskrevne datasæt giver nogle unikke muligheder for at studere oligopolistisk konkurrence, da det indeholde alle priser og mængder for et stort antal meget veldefinerede markeder. Nogle af de spørgsmål, som vi planlægger at undersøge er:

- Lægemiddelstyrelsen har indført den regel, at en leverandør, som ikke kan levere (a) den garanterede mængde, bliver udelukket fra markedet i den næste prisperiode. Straffen for leveringssvigt er derfor hård. Dette burde betyde, at leverandører med usikre leveringskanaler såsom f.eks. parallel-importører har et incitament til at tilbyde en lavere mængde. Det er vigtigt at tage højde for kapacitetsbegrænsninger, når konkurrencen i oligopolistiske markeder analyseres (Froeb and Werden, 1991; Brendstrup et al., 2006). I modsætning til de fleste tidligere studier observerer vi direkte de perioder, hvor kapacitetsbegrænsningen binder og leveringssvigt sker. Sandsynligheden leveringssvigt er imidlertid et ligevægtsfænomen, da den afhænger af den tilbudte mængde. Vi vil derfor udvikle en strukturel empirisk model, hvor leverandørerne profitmaksimerer under hensyntagen til deres kapacitetsbegrænsning og straffen for leveringssvigt. Metodisk planlægger vi at bruge den efterspørgselsmodel for differentierede goder, som er udviklet af Berry (1994). Analysen er videnskabelig interessant, men har også oplagt policy relevans. Modellen vil, når empirisk identificeret, kunne give svar på, hvad reglerne omkring leveringssvigt betyder for de tilbudte priser og mængder på markederne. Analysen vil derfor kunne danne grundlag for anbefalinger til eventuelle forbedringer af markedsdesignet.
- (b) Et vigtigt spørgsmål på markederne for lægemidler er konkurrencen mellem originale og generiske produkter. Hvordan reagerer en leverandør af et originalprodukt på den konkurrence fra generiske produkter, som opstår ved patentudløb? Der er fundet ret forskellige svar på disse spørgsmål i litteraturen (Frank and Salkever, 1997; Bergman and Rudholm; 2003). De detaljerede danske data for mange forskellige lægemidler gør det muligt at studere de faktorer, som får en leverandør af et originalprodukt til at sætte en høj pris og "malke" sit omdømme eller til at sætte en lav pris for at vanskeliggøre generiske produkters indtrængen på markedet.

<sup>&</sup>lt;sup>2</sup> Disse data er allerede blevet gjort tilgængelige for en gruppe af studerende ved Syddansk Universitet.

(c) I senere analyser påtænker vi at analysere implicitte prisaftaler ("tacit collusion"). Markederne for lægemidler i Danmark har en række karakteristika, som gør implicitte prisaftaler lettere at opretholde: Relativt få virksomheder på mange af markederne, korte prisperioder og homogene produkter (Tirole, 1988). Derudover konkurrerer mange af leverandører på flere markeder (Evans and Kessides, 1994). EU Kommissionen har i forbindelse med Airtours/First Choice-sagen udviklet en række kriterier, som kan bruges til at identificere markeder, hvor mulighederne for at opretholde implicitte prisaftaler er til stede. Disse kriterier udgør et naturligt udgangspunkt for en analyse af implicitte prisaftaler. Senere analyser vil bruge variationen i priser på tværs af tid og markeder til mere sofistikerede analyser. Vi vil f.eks. undersøge, hvorvidt priserne er højere på markeder, hvor leverandørerne konkurrerer med hinanden på flere markeder samtidigt.

### Tidsplan:

Dataforberedelse: Jan. – juni 2008 Projekt (a): April 2008 – juni 2009 Projekt (b): Jan. 2009 – marts 2010 Projekt (c): Nov. 2009 – dec. 2010

#### **Referencer:**

Bergman M. & N. Rudholm (2003): "The relative importance of actual and potential competition: Empirical evidence from the Pharmaceuticals Market", *The Journal of Industrial Economics*, LI, 455-467.

Berry, S.T. (1994): "Estimating discrete choice models of product differentiation," *RAND Journal of Economics*, 25, 242–262.

Brendstrup, B., H.J. Paasch and J.L. Solow (2006): "Estimating market power in the presence of capacity constraints: an application to high-fructose corn sweetener", *International Journal of Industrial Organization*, 24, 251-267.

Evans, W. N. and I. N. Kessides (1994): "Living by the "Golden Rule": Multimarket Contact in the U.S. Airline Industry", *Quarterly Journal of Economics*, 109, 341-366.

Frank R. and D.S. Salkever (1997): "Generic entry and the pricing of pharmaceuticals", *Journal of Economics and Management Strategy*, 6, 75-90.

Froeb, L. and G. Werden (1991): "Residual demand estimation for market delineation: complications and limitations", *Review of Industrial Organization*, 6, 33-48.

Tirole, J. (1988): The Theory of Industrial Organization. The MIT Press, Cambridge.

#### **Budget:**

• Løn til videnskabelig medarbejder (TR, lektor)

i.	Forventet forbrug af forskningstid	2 md.
ii.	Månedlig lønsats	38.400 kr.
iii.	I alt	76.800 kr.

• Løn til videnskabelig medarbejder (UK, professor)

i.	Forventet forbrug af forskningstid	2 md.
	Månedlig lønsats	52.125 kr.
iii.	I alt	104.250 kr.

• Udgifter til udenlandsk gæsteforsker (MK, Adjunkt)

i.	Rejser/ophold	25.000 kr.
ii.	I alt	25.000 kr.

• Udgifter til data:

i.	Etablering af databasen <sup>3</sup>	20000 kr.
ii.	Forskningsassistance <sup>4</sup>	50000 kr.
iii.	I alt	70000 kr.

• Andre udgifter

i.	Rejser/ophold (TR/UK) <sup>5</sup>	30.000 kr.
ii.	I alt	30.000 kr.

• Overhead (20 % af udgifter) 61.210 kr.

TOTAL 367.260 kr.

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<sup>&</sup>lt;sup>3</sup> Udgifter til programmørtimer samt evt. hardware til etablering af databasen.

<sup>&</sup>lt;sup>4</sup> Der er et stort behov for forskningsassistance til at få identificeret de forskellige lægemiddelleverandører og deres produkter. Det skal undersøges hvilke produkter som de forskellige leverandører sælger, hvorvidt de producerer eller importerer lægemidlerne, samt hvilke produkter som er originalprodukter og generika.

<sup>&</sup>lt;sup>5</sup> Udgifter til konferencer, som er relevante for projektet, samt kortere forskningsophold hos gæsteforsker MK.

# **Ulrich Kaiser Curriculum Vitae and list of publications**

# **Curriculum Vitae**

# **Addresses**

#### Mo., Tue. and Fri. office:

University of Southern Denmark at Odense

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DK-5230 Odense M phone: +45 6550 3363 fax: +45 6615 8790 email: uka@sam.sdu.dk

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Centre for Economic and Business Research

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fax: +49 621 1235 170 email: kaiser@zew.de

www.zew.de/de/mitarbeiter/mitarbeiter.php3?action=mita&kurz=uka

#### Personal data

Birth date and place: January 31, 1971 in Unna (Germany)
Married since Oct. 1998, two children (born May 2001 and June 2004)
German citizen, permanent resident of Denmark

# Foreign languages

Fluent in Danish and English; native German

## **Education**

Abitur: Ricarda Huch Gymnasium Krefeld (Germany), May 1990

University: University of Konstanz (Germany), Student of Economics; fall 1991

spring 1997

Studies abroad: University of Massachusetts at Amherst (USA), Visiting Student of

Economics; fall 1993

Diploma: Diplom-Volkswirt, University of Konstanz, grade "gut"; Feb. 1997

Master's thesis: "The Determinants of BUND Futures Price Changes: An Ordered

Probit Analysis Using DTB and LIFFE Data"; grade "sehr gut"

Supervisor: Prof. Dr. Winfried Pohlmeier

Doctoral thesis: "Innovation, Employment, and Firm Performance in the German

Service Sector", University of Konstanz, grade "sehr gut"; July 2001

Thesis committee: Prof. Dr. Winfried Pohlmeier (thesis supervisor), Prof. Dr. Oliver

Fabel (thesis co-supervisor), Prof. Dr. Rainer Schnell (oral

examiner); all University of Konstanz

# **Military service**

July 1990 – June 1991, Hannover (Germany)

# **Internships**

KHD Great Britain Ltd., London; Part & Engine Dept.; March – April 1992.

Treuhandanstalt, Berlin, Direktorat Abwicklung; August – October 1992.

Arbeitsamt Konstanz, Statistics Dept., August – October 1994.

Bankhaus Neelmeyer AG, Bremen, Asset Management; July – September 1996.

ZEW, Dept. of Industrial Economics and International Management; March – April 1996.

ZEW, Dept. of Industrial Economics and International Management; July – August 1996.

# **Professional**

Research fellow at the Centre for European Economic Research (ZEW), Dept. of Industrial Economics and International Management; Feb. 1997 – April 1999.

Head of the project "Business survey in the ICT-intensive services industry" (a cooperation project with Germany's leading credit rating agency "Creditreform", ZEW, Dept. of Industrial Economics and International Management; June 1999 – August 2001.

- Research associate at the Center of Finance and Econometrics at the University of Konstanz; Jan. 1998 Jan. 2001.
- Senior researcher at the ZEW, Research Group Information and Communication Technologies; May 2001 June 2002.
- Research affiliate at the National Bureau of Economic Research, Cambridge, MA; September 2001 – June 2002.
- Visiting Fellow, Harvard University, Dept. of Economics (host: Prof. Ariel Pakes, PhD), Cambridge, MA; Sept. 2001 June 2002.
- Associate Professor (with tenure), University of Southern Denmark at Odense, Dept. of Economics; July 2002 Dec. 2004.
- Core member, Centre for Economic and Business Research, Copenhagen; since Nov. 2002.
- Permanent guest professor, Centre for European Economic Research, Dept. of Industrial Economics and International Management; since Feb. 2003.
- Full Professor of Economics with Special Assignments in Econometrics and its Applications, University of Southern Denmark at Odense, Dept. of Economics (now Dept. of Business & Economics); since Jan. 2005.
- Member, Centre for Industrial Economics at University of Copenhagen; since Oct. 2005.

#### **Awards**

- "Grundfos Prize 2003", with S.E. Hougaard Jensen, N. Malchow-Møller, J.R. Skaksen and A. Sørensen, Euro 6.300 for each winner for personal disposal plus Euro 6.300 for research, May 2003
- Winner "Wettbewerb Winterarbeit", Federal Armed Forces, Euro 250, April 1991

# **Teaching – Academic**

- "The economics of patents", lecture within the cross-faculty course "Business Development and Innovation Management", Dept. of Marketing and Management; fall semester 2007.
- "Industrial Economics", University of Southern Denmark at Odense, Dept. of Business and Economics; fall semester 2007.
- "Industrial Economics", University of Southern Denmark at Odense, Dept. of Business and Economics; spring semester 2007.
- "Microeconometrics", University of Southern Denmark at Odense, Dept. of Business and Economics; fall semester 2006.
- "Oligopoly Models in Economics", University of Southern Denmark at Odense, Executive MBA, Sept. 2, 2006.
- "Economic Integration II", University of Southern Denmark at Odense, Dept. of Business and Economics; spring semester 2006.
- Study group "The Empirical Evaluation of Credit Risk" (graduate level), University of Southern Denmark at Odense, Dept. of Economics; fall semester 2005.

- 20 percent of the course "Dynamic and Financial Econometrics" (graduate level, shared with Jacob Nielsen Arendt), University of Southern Denmark at Odense, Dept. of Economics; fall semester 2005.
- 20 percent of the course "Advanced Econometrics" (graduate level, shared with Julia Häring, Jørgen Lauritsen, Cédric Schneider, Jacob Nielsen Arendt), University of Southern Denmark at Odense, Dept. of Economics; spring semester 2005.
- "Economic Integration II", University of Southern Denmark at Odense, Dept. of Economics; spring semester 2005.
- "Economic Policy" (graduate level), University of Southern Denmark at Odense, Dept. of Economics; fall semester 2004.
- 20 percent of the course "Dynamic and Financial Econometrics" (graduate level, shared with Jørgen Lauridsen and Shahriar Yousefi), University of Southern Denmark at Odense, Dept. of Economics; fall semester 2004.
- "Economic Integration II" (graduate level), University of Southern Denmark at Odense, Dept. of Economics; spring semester 2004.
- "Economic Policy" (graduate level), University of Southern Denmark at Odense, Dept. of Economics; fall semester 2003.
- "Research policy" (graduate level), University of Konstanz, Dept. of Physics, June 2003.
- "Mergers and Acquisitions" (PhD program), University of Ancona, Dept. of Economics, Italy; May 26-27, 2003
- "Economic Integration II", University of Southern Denmark at Odense, Dept. of Economics; spring semester 2003.
- "Economic Policy" (graduate level), University of Southern Denmark at Odense, Dept. of Economics; fall semester 2003.
- Lecturer in "Industrial Policy in the European Union: Institutions, Research Policy and Merger Analysis" (graduate level), University of Southern Denmark at Odense, Dept. of Economics; compressed course taught in Feb. 2002.
- Lecturer in "Multivariate Analysis Methods" (graduate level), Munich School of Management at the Ludwigs-Maximilians University Munich; spring term 2000.

# Teaching — Practitioner

- "Logit-type models for the estimation the demand for differentiated products", compressed course, Centre for European Economic Research, April 20, 2006.
- Seminar on "Credit Risk Measurement", Centre for European Economic Research, Mannheim; March 8-9, 2001.
- Workshop "Ökonometrische Verfahren zur Bonitätsrisikomessung" (Econometric approaches to credit risk measurement), Center of Finance and Credit Risk Measurement, University of Mainz; Feb. 16, 2001.
- Seminar on "Credit Risk Measurement", Centre for European Economic Research, Mannheim; Oct. 16-17, 2000.

# **Student supervision**

#### Ph.D. students I am/I was involved with

- Supervisor: Jannick Damgaard (Danmarks Nationalbank); expected date of completion February 2010.
- Supervisor: Julia Häring (now Lundbeck A/S, Copenhagen), "Microeconometric analysis of digital markets", thesis defended in June 2007.
- Supervisor (with Tomas Rønde, University of Copenhagen): Cédric Schneider (now Katholieke Universiteit Leuven, Belgium), "Human Capital, Patenting Activity, and Technology Spillovers", thesis defended Sept. 2007.
- Co-supervisor: Ralf Dewenter (now University of the Federal Armed Forces, Hamburg), "Interrelated media markets", University of Essen, thesis defended Nov. 25, 2003.
- Ph.D. committee member: Anne Dyrberg Rommer (Danmarks Nationalbank), "Accounting-based credit-scoring models: econometric investigations", University of Copenhagen, Nov. 30, 2005.
- Ph.D. committee chairman: Edlira Gjonça (now University College London), "Socio-economic determinants of longevity in Denmark, England and Wales a comparative study"; University of Southern Denmark, thesis defended Oct. 6, 2003.

#### Master's theses I supervised

- "Corporate income tax rates' impact on foreign direct investment inflows in the European Union member states", Sigita Grundiza, fall semester 2007.
- "Internationalisation of R&D of Danish Firms and Institutions", Simon Lamech, fall semester 2005.
- "European Unions regulatory policy in the telecommunications sector and its influences on Estonian telecommunications market development", Karin Lepp, spring semester 2005.
- "The implementation of EU pre-structural and structural funds, focussing on Estonia", Maris Rahnu, spring semester 2005.
- "The Norway-Latvia enterprise development fund as a model for state financed risk capital schemes in Latvia", Martins Dukats, spring semester 2005.
- "Financial development and economic growth: time series evidence from Gambia 1970-1994", Alieu Saho, fall semester 2004.
- "Why do IKEA prices differ across Europe? A theoretical and empirical analysis of IKEA's pricing behaviour", Jannick Damgaard (now Statistics Denmark), fall semester 2003; this thesis won the "Industri og Handelskammeret Odense" prize Odense.

# **Sponsored research**

- European Commission (6<sup>th</sup> framework), "Science and Technology Research In a Knowledge-based Economy" ("COST"), financing of the exchange of researchers; other participating institutions: Université Libre de Bruxelles, K.U. Leuven), University of Cyprus, Université Paris I, Ludwig-Maximilians-University Munich, University of Pécs, Bocconi University, University of Maastricht, Warsaw School of Economics, University of Ljubljana, Universitat Pompeu Fabra, EPFL, Lausanne and University College London, Jan. 2007-Dec. 2007
- European Commission (6<sup>th</sup> framework), "Analysing and Evaluating the Impact of Innovation of Publicly-Funded Research Programmes" ("IMPLORE"), DKK 75,700/10,000 Euro; other participating institutions: Joanneum Research Forschungsgesellschaft mbH, (Austria), UNU-MERIT, (the Netherlands), Glasgow Scottish Enterprise Technology Park, (UK), VDI/VDE Innovation + Technik GmbH (Germany), Athens University of Economics and Business (Greece), Warsaw School of Economics Word Economic Research Institute (Poland), Wise Guys Ltd. (UK), Nov. 2006 Jan. 2007
- European Commission (6<sup>th</sup> framework), "The value of patents for today's economy and society", tender no. ETD/2004/IM/E3/77, Euro 30,000/DKK 228.000, subcontractor of Fondazione CERM and Bocconi University, Italy; other institutions involved: Eindhoven University of Technology (the Netherlands), Universitat Pompeu Fabra (Spain), Ludwig-Maximilians-Universität (Germany), Universitè de Lyon 2 (France), University of Sussex (United Kingdom), Centre for European Economic Research (Germany), University of Pécs (Hungary).
- Statens Samfundsvidenskabelige Forskningsråd (Danish Social Science Research Council), "Human Capital, Patenting Activity, and Technology Spillovers" (with Thomas Rønde), DKK 2,321,152/Euro 306,998.20; Jan. 2004 Dec. 2007.
- Erhvervs og Boligstyrelsen (National Agency for the Enterprise and Housing) "Benchmarking of Small and Medium size firm for twenty selected countries – Construction of growth indicators", DKK 150,000/Euro 19,839.17; fall 2003 – spring 2004 (with Martin Junge).
- Economic Policy Research Network (EPRU, Copenhagen) "Innovative activity in Denmark and Germany a cross-country comparison", DKK 150,000/Euro 19,839.17; Feb. 2003 Jan. 2004.
- Erhvervs og Boligstyrelsen (National Agency for the Enterprise and Housing) "Software patents", fall 2003 (with Thomas Rønde).
- VolkswagenStiftung, founding of the research project "Panel Data models for the Analysis of Models for Differentiated Product Demand" within the "Empirical Economics Program of Fellowships for German Researchers in the United States", DKK 604,864/Euro 80,000; fall 2001 fall 2002.
- Verband der Vereine Creditreform, co-sponsorship of the project "Business survey in the ICT-intensive services industry" (since 1994); additional partners are the new agencies "vereinigte wirtschaftsdienste" (since 1998) and "bloomberg" (since 1999)

- German Science Foundation (Deutsche Forschungsgemeinschaft, DFG), founding of the research project "Human capital, skill structure and labor market effects in demographic change", heads of project: Winfried Pohlmeier and Friedhelm Pfeiffer: Feb. 1995– Dec 1998.
- German Science Foundation (Deutsche Forschungsgemeinschaft, DFG), founding of the research project "Technical Progress, Qualification and Labor Demand" within the DFG target program "Industrial Economics and Input Markets", heads of project: Winfried Pohlmeier and Friedhelm Pfeiffer; Feb. 2000 Feb. 2002.

# Other research management and administration

- Responsible for the Econometrics education at the University of Southern Denmark at Odense; since March 2006.
- Member of a committee to strengthen Mathematical Economics at the University of Southern Denmark.
- Coordinator of the research project "Technology, Patents and Innovation" at the CEBR, Copenhagen.
- Chairman of a commission to establish a new international BA study program "International Public Economics", University of Southern Denmark at Odense, Dept.; since Sept. 2002.
- Member of the evaluation committee of Ph.D.-scholarship applicants, University of Southern Denmark at Odense, Dept.; fall semester 2002.

## Research visits

- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Oct. 16 17, 2007.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, July 30 August 3, 2007.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, July 19 20, 2007.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Feb. 26 March 2, 2007.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Dec. 5 –8, 2006.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Oct. 4 Oct. 6, 2006.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, June 19 June 23, 2006.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, April 18 April 21, 2006.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management,
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Dec. 5 Dec. 7, 2005.

- Centre for European Economic Research, Dept. of Industrial Economics and International Management, June 30, 2005.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, April 5 April 8, 2005.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Nov. 1 Nov. 5, 2004.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, April 5 April 8, 2004.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Jan. 12 Jan. 16, 2004.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, Oct. 13. Oct. 19, 2003.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, June 30. July 4, 2003.
- University of Konstanz, Dept. of Economics, June 2 June 28, 2003.
- Centre for European Economic Research, Dept. of Industrial Economics and International Management, April 28 May 3, 2003.
- Centre for European Economic Research, Research Group Information and Communication Technologies, Dec. 11 Dec 18, 2003.

National Bureau of Economic Research, Sept. 1, 2001 – June 30, 2002.

Harvard University, Dept. of Economics, Sept. 1, 2001 – June 30, 2002.

University of Konstanz, Chair for Econometrics, March 30 – April 24, 2000.

University of Konstanz, Chair for Econometrics, Nov. 6 – Nov. 8, 1999.

University of Konstanz, Chair for Econometrics, Sept. 20 - Sept. 24, 1999.

# **Keynote speech**

"Empirical aspects of Innovation and the Adoption of New Technology", Workshop on "Innovation, R&D, and Adoption of New Technology", University of Kiel, June 15/16, 2006.

# **Evaluation of academic institutions**

Evaluation of the faculty "Technology, Policy and Management" at Technical University of Delft, Delft, May 30 – May31, 2006.

Evaluation of the "Forschungsdatenzentren der Statistischen Ämter des Bundes und der Länder" (Research Data Service Center), Düsseldorf, Oct. 12 – 13, 2006.

# **Evaluation of individual academics**

Member of an evaluation committee for an assistant/associate professorschip at Copenhagen Business School, fall 2007.

Chairman, evaluation committee for an assistant/associate professorschip at the University of Southern Denmark at Odense, fall 2005.

# **Evaluation of research proposals and papers**

Evaluator for Agence Nationale de la Recherche (French National Research Agency), September 2007.

Member of the paper evaluation committee, Annual meeting of the German Economic Association, Bayreuth, Sept. 26 – Sept. 29, 2006.

Member of the paper evaluation committee, Annual meeting of the German Economic Association, Zurich, Sept. 30 – Oct. 3, 2003.

# Conference and workshop (co-) organization

Co-organizer (with Thomas Rønde, Hans Christian Kongsted and Cédric Schneider), workshop on Human Capital, Spillovers and Patenting Activity, Copenhagen, Sept. 18 – 19, 2007.

Member of the Scientific Board, Workshop on ICT and Firm Strategies, Centre for European Economic Research, October 6 – 7, 2006.

Co-organizer (with James R. Markusen, Jan Rose Skaksen, Ulrich Kaiser, Anders Sørensen and Nikolaj Malchow-Møller), workshop on Entrepreneurship, Copenhagen, Oct. 10-11, 2004.

Member of the Scientific Board, 5th Berlecon workshop on the Economics of Information Technology: "E-Business – economic impact and policy implications", Berlin, June 13-14, 2003.

Organizer of the Dept. of Economics seminar series at the University of Southern Denmark at Odense, since Aug. 2002.

Organization of the ZEW conference "The Economics of Information and Communication Technologies", co-organized by Irene Bertschek and Max Keilbach, Mannheim; June 18-19, 2001.

#### Referee

Economics of Innovation and New Technology (2001, 2004, 2005)

Empirical Economics (2004, 2005)

Electronic Markets (2004)

German Economic Review (2004)

Information Economics and Policy (2005, 2006)

International Journal of Industrial Organization (2001, 2002, 2003, 2004)

International Review of Economics & Finance (2003)

Jahrbücher für Nationalökonomie und Statistik (2005)

Journal of Applied Econometrics (2005)

Journal of Economics (2003)

Journal of Economics and Management Strategy (2004)

Journal of Industrial Economics (2003, 2004, 2005)

Journal of Institutional and Theoretical Economics (2002. 2006)

Journal of Technology Transfer (2006)

Management Science (2004)

Regional Science and Urban Economics (2002)

Regional Studies (2004)

Research Policy (2005, 2006, 2007)

Review of Industrial Organization (2002)

Scandinavian Journal of Economics (2003, 2005)

Small Business Economics (2004, 2006)

Zeitschrift für Betriebswirtschaft (2004)

# **Memberships**

Deutsche Statistische Gesellschaft (German Statistical Association)

German Economic Association for Business Administration e. V.

Verein für Socialpolitik (German Economic Association)

Verein für Socialpolitik, Industrieökomischer Ausschuss

# Alumni

Verein der Freunde und Förderer des Ricarda Huch Gymnasiums Krefeld

Verein der Ehemaligen der Universität Konstanz e.V.

University of Massachusetts at Amherst

Harvard University, Faculty of Arts and Sciences

# Other activities

I used to work as a free lance contributor to "Rheinischen Post" (a regional daily); 1988 – 1989

I was the pupil's spokesman at my school; 1987 – 1989

I was a founding member of the political cabaret group "Die Scheinheiligen" (two of the former members, Volker Diefes and Christan Ehring, work with Germany's most renowned cabaret stage, "Kom(m)ödchen", Düsseldorf, the others joined the ordinary workforce); 1990 – 1992

I was a sailing instructor at the University of Konstanz; 1993 – 1996

I was regional chairman of the "Young Liberals" (junior organization of the German "Free Democrats"); 1994 – 1996

I was a sailing instructor at Kanu Club Frankenthal in 2000

I still sail competitively

Odense, October 22, 2007

# **Publications and presentations**

# Selected publications in international refereed academic journals

#### **Forthcoming**

[8] "True versus spurious state dependence in firm performance: The case of West German exports", Centre for Economic and Business Research Discussion Paper 2004-07 (with H. C. Kongsted); forthcoming in *Empirical Economics*.

#### 2006

- [7] "Price structure in two-sided markets: Evidence from the magazine industry", International Journal of Industrial Organization 24(1), 1-28 (lead article, with J. Wright).
- [6] "Magazines and their Companion Websites: Competing Outlet Channels?", Review of Marketing Science 4(3).

#### 2004

- [5] "The Performance of German Firms in the Business-Related Service Sectors", Journal of Business & Economic Statistics 22 (3), 274-295 (with P.N. Van and F. Laisney).
- [4] "Productivity Effects of Organizational Change: Microeconometric Evidence", Management Science 50(3), 394-404 (with I. Bertschek).

#### 2002

- [3] "An Empirical Test of Models Explaining Research Expenditures and Research Cooperation", *International Journal of Industrial Organization* 20(6), 747-774 (lead article).
- [2] "R&D with Spillovers and Endogenous Absorptive Capacity", *Journal of Institutional and Theoretical Economics*, 158(2), 286-303.
- [1] "Measuring Knowledge Spillovers in Manufacturing and Services: An Empirical Assessment of Alternative Approaches", *Research Policy* 31(1), 129-149.

# Other publications in international refereed academic journals

#### 2006

[7] "B2B or Not to Be: Does B2B E-Commerce Increase Labour Productivity?", International Journal of the Economics of Business, 13(3), 387-405 (with I. Bertschek and H. Fryges).

#### 2005

- [6] "A Microeconometric Note on Product Innovation and Product Innovation Advertising", *Economics of Innovation and New Technology* 14(7), 573-582.
- [5] "Strategic Complementarities Between Different Types of ICT-expenditures", Problems and Perspectives in Management 3 (1), 72-81.

#### 2001

- [3] "Wage Agreements and Work Time Flexibility: Empirical Evidence for German Business-related Services", *LABOUR: Review of Labour Economics and Industrial Relations* 15(2), 317-341 (with F. Pfeiffer).
- [2] "The Impact of Foreign Competition and New Technologies on the Demand for Heterogeneous Labor: Empirical Evidence from the German Business-Related Services Sector", *Review of Industrial Organization* 19 (1), 109-120.

#### 2000

[1] "New Technologies and the Demand for Heterogeneous Labor: Firm-level Evidence for German Business-related Services", *Economics of Innovation and New Technology* 9(5), 465-484.

#### Resubmitted revision

#### 2007

"Do Magazines' "Companion Websites" Cannibalize the Demand for the Print Version?, Centre for Economic and Business Research Discussion Paper 2005-10 (with H. C. Kongsted); revision resubmitted to *Quantitative Marketing and Economics*.

# Papers under revision

#### 2007

- [13] "Do media consumers really dislike advertising?, Centre Economic and Business Research Discussion Paper 2006-09; under revision for *International Journal of Industrial Organization*.
- [2] "Is Self-Employment Always a Bad Experience?", Centre Economic and Business Research Discussion Paper 2006-20 (with Nikolaj Malchow-Møller); under revision for *Labour Economics*.

#### 2006

[4] "The Pulse of Liability of Foreignness: Dynamic Legitimacy and Experience Effects in the German Car Market", ZEW Discussion Paper 06-070 (with W. Sofka); under revision for *Journal of World Business*.

#### 2001

- [2] "Moving In and Out of Financial Distress: Evidence for Newly Founded Service Sector Firms", Centre for European Economic Research Discussion Paper 2001-09; under revision for *Journal of Banking and Finance*.
- [1] "Differences in Response Patterns in a Mixed Mode Online/Paper & Pencil Business Survey", Centre for European Economic Research Discussion Paper 2001-50; under revision for *Journal of Official Statistics*.

# **Submitted papers**

#### 2007

[2] "When Pricing Below Marginal Cost Pays Off: Optimal Price Choice in a Media Market with Upfront Pricing", Centre for Industrial Economics working paper.

#### 2006

[1] "Patents and profit Rates", Centre Economic and Business Research Discussion Paper 2006-12.

# Publications in mainly national refereed academic journals

#### **Forthcoming**

[11] Ulrich Kaiser & Joachim Wagner, 2007. "Neue Möglichkeiten zur Nutzung vertraulicher amtlicher Personen- und Firmendaten," Working Paper Series in Economics 48, University of Lüneburg, Institute of Economics; forthcoming in *Perspektiven der Wirtschaftspolitik*.

#### 2006

- [10] "Anmerkungen zur ökonomischen Bewertung von Fusionen auf dem Printmedienmarkt", *Perspektiven der Wirtschaftspolitik* 7(3), 335-354 (with R. Dewenter).
- [9] "Private R&D and Public R&D subsidies: Microeconometric Evidence from Denmark", Nationaløkonomisk Tidskrift/Danish Journal of Economics 144(1), 1-17.

#### 2005

- [8] "Fusionen auf dem Printmedienmarkt aus wirtschaftstheoretischer Sicht", Vierteljahreshefte zur Wirtschaftsforschung 74(3), 51-63 (with R. Dewenter).
- [7] "A Danish view on software-related patents", *Nationaløkonomisk Tidsskrift/Danish Journal of Economics* 142(3), 301-313 (with T. Rønde).

#### 2003

- [6] "Simple Econometric Methods for the Measurement of Credit Risk: Logit- and Probit Models" (in German, original title: "Einfache ökonometrische Verfahren für die Kreditrisikomessung: Logit- und Probit-Modelle"), Zeitschrift für Betriebswirtschaftliche Forschung 55, 773-822 (with A. Szczesny).
- [5] "The Impact of Skill Structure, Training and Firm Size on Firms' IT-Ousourcing Activities" (in German, original title: "Die Wirkung von Qualifikationsstruktur, Weiterbildung und Unternehmensgröße auf das Outsourcing von IT-Dienstleistungen"), Zeitschrift für Betriebswirtschaft 4/2003, 137-163 (with J. Henkel).

#### 2000

- [4] "A Note on the Calculation of Firm-Specific and Skill-Specific Labor Cost from Firm-Level Data", *Jahrbücher für Nationalökonomie und Statistik/Journal of Economics and Statistics* 220/5, 541-551.
- [3] "New Technologies and the Demand for Heterogeneous Labor: Firm-level Evidence for German Business-related Services", *Economics of Innovation and New Technology* 9(5), 465-484.

[2] "On the Lead/Lag Relationship between Manufacturing and Services in the Business Cycle", *ifo-studies* (now *CESifo studies*) 2/2000, 161-176 (with K. Voß).

#### 1999

[1] "The Impact of Economic Policy Events on Firms' Expectations Regarding the EU's Starting Date" (in German, original title "Die Wirkung wirtschaftspolitischer Ereignisse auf Erwartungen über den Starttermin der Europäischen Währungsunion"), ifo-studies (now CESifo studies) 2/1998, 103-120.

# Publications in academic journals – editor-refereed

#### 2003

[4] "Denmark in the Knowledge Society – Challenges for Research and Education Policy" (in Danish, original title "Danmark i vidensamfundet- udfordringer for forsknings- og uddannelsespolitikken"), *Samfundsøkonomen* 7/2003, 4-11 (with S.E. Hougaard Jensen, N. Malchow-Møller, J.R. Skaksen and A. Sørensen).

#### 2001

[3] "The ZEW/Creditreform Quarterly Business Survey", Schmollers Jahrbuch: Zeitschrift für Wirtschafts- und Sozialwissenschaften/Journal of Applied Social Science Studies 122(2), 319-326.

#### 1999

- [2] "The Impact of the Introduction of the Euro on Firms' Expectations Concerning Export Behavior, Product Innovation and Foreign Competition", *intereconomics* 34(3), 107-115 (with C. Stirböck).
- [1] "Die ZEW/Creditreform Konjunkturumfrage bei Unternehmensnahen Dienstleistern", *Allgemeines Statistisches Archiv* 83, 447-451.

# **Discussion papers**

#### 2005

- [12] "Is a Newspaper's Companion Website a Competing Outlet Channel for the Print Version?", Centre for Economic and Business Research Discussion Paper 2005-23.
- [11] "Patenting Activity in Denmark", Centre for Economic and Business Research Discussion Paper 2005-9 (with G. Licht, T. Rønde and C. Schneider).
- [10] "Is There Really No Place Like Home for Productivity?", Centre for Economic and Business Research Discussion Paper 2004-06.

#### 2003

[9] "The Effects of Website Provision on the Demand for German Women's Magazines", National Bureau of Economic Research Working Paper 8806.

#### 2002

[8] "A Note on Pricing and Efficiency in Print Media Industries", Centre for European Economic Research Discussion Paper 2002-33.

#### 2001

[7] "Einfache ökonometrische Verfahren für die Kreditrisikomessung: Verweildauermodelle", University of Frankfurt Working Paper Series Finance & Accounting No. 61 (with A. Szczesny).

#### 2000

- [6] "Efficient Bargaining in the Service Sector", Center for Finance and Econometrics Discussion Paper 00-24 (with W. Pohlmeier).
- [5] "The ZEW/Creditreform Business Survey in the Business-related Services Sector: Sampling Frame, Stratification, Expansion and Results," Centre for European Economic Research Discussion Paper 2000-22 (with M. Kreuter and H. Niggemann).

#### 1999

[4] "The Service Sentiment Indicator-A business Climate Indicator for the German Business-related Services Sector", Center of Finance and Econometrics Discussion Paper No. 99/06 (with H.S. Buscher).

#### 1998

- [3] "R&D Cooperation and R&D Intensity: Theory and Micro-Econometric Evidence for Germany", Centre for European Economic Research Discussion Paper 1998-32 (with G. Licht).
- [2]" Der Service Sentiment Indicator Ein Konjunkturindikator für den Wirtschaftszweig unternehmensnahe Dienstleistungen", Centre for European Economic Research Discussion Paper 1998-04 (with H. S. Buscher).

#### 1997

[1] "The Determinants of BUND-Future Price Changes: An Ordered Probit Analysis Using DTB and LIFFE Data", Centre for European Economic Research Discussion Paper 1997-09.

# **Monographs**

#### 2003

[2] "Denmark in the Knowledge Society – Challenges for Research and Education Policy" (in Danish, original title "Danmark i vidensamfundet- udfordringer for forsknings- og uddannelsespolitikken"), DJØF Publishing Copenhagen (with Svend E. Hougaard Jensen, Nikolaj Malchow-Møller, Jan Rose Skaksen and Anders Sørensen).

#### 2002

[1] "Innovation, Employment, and Firm Performance in the German Service Sector", Centre for European Economic Research Economic Studies/ZEW Economic Studies, Bd. 16, Springer/Physica Verlag, Heidelberg/New York.

## **Publications in collected volumes**

#### 2003

[6] "Quantification of Qualitative Data Using Ordered Probit Models with an Application to a Business Survey in the German Service Sector, in G. Poser (Ed.), Economic Surveys and Data Analysis: CIRET Conference Proceedings, OECD, Paris, 325 – 346 (with A. Spitz).

#### 2002

[5] "Logit- und Probit-Modelle für Kreditrisiken", in: M. Schroeder, Finanzmarkt-Ökonometrie – Grundlagen, fortgeschrittene Verfahren, Prognosemodelle, Schaeffer-Poeschel Verlag, Stuttgart (with A. Szczesny).

#### 2001

- [4] "IKT-Einsatz, Arbeitsplatzreorganisation und Produktivität: Empirische Evidenz für unternehmensnahe Dienstleister", in: L. Bellmann and A. Kölling (Eds.), Betrieblicher Wandel und Fachkräftemangel, Beiträge zur Arbeitsmarkt- und Berufsforschung 257, Bundesanstalt für Arbeit, Nürnberg (with I. Bertschek).
- [3] "Einfache ökonometrische Modelle für die Kreditrisikomessung", in: A. Szczesny (Ed.), Kreditriskomessung und Kreditrisikomanagent, ZEW Wirtschaftsanalysen, Nomos-Verlag, Baden-Baden (with A. Szczesny).
- [2] "Produktivitätseffekte organisatorischer Veränderungen", in: U. Backes-Gellner, M. Kräkel, J. Sadowski, J. Mure, Entlohnung, Arbeitsorganisation und personalpolitische Regulierung, Beiträge zum Köln-Bonner Kolloquium zur Personalökonomie, Rainer Hampp Verlag, Düsseldorf, 73-85. (with I. Bertschek).

#### 2000

[1] "Tarifverträge und Beschäftigungspolitik in Dienstleistungsunternehmen", in: U. Backes-Gellner, M. Kräkel, B. Schauenberger and G. Steiner, Flexibilisierungstendenzen in der betrieblichen Personalpolitik - Anreize, Arbeitszeiten und Qualifikation, Rainer Hampp Verlag, Düsseldorf, 233-256 (with F. Pfeiffer).

# Selected Seminars and Conference Presentations — Academic

- Human capital, spillovers and patenting activity, Wissenschaftliche Hochschule für Unternehmensführung Seminar Series, Vallendar, Oct. 16, 2007.
- When pricing below marginal cost pays off: optimal price choice in a media market with upfront pricing, Verein für Socialpolitik Annual Meeting, University of Munich, Oct. 10 12, 2007.
- Human capital, spillovers and patenting activity, workshop on Human capital, spillovers and patenting activity, Copenhagen, Sept. 18 19, 2007.
- Human capital, spillovers and patenting activity, Centre for Industrial Economics Annual Meeting, Aug. 24 25, Middelfart.
- When Pricing Below Marginal Cost Pays Off: Optimal Price Choice in a Media Market with Upfront Pricing, Industrieökomischen Ausschuss, Verein für Socialpolitik, March 12-13, 2007, Deutsches Institut für Wirtschaftsforschung, Berlin.

- Does entrepreneurship really not pay?, 10. Personalökonomisches Kolloquium, Universität Tübingen, March 1-2, 2007.
- Estimating Advertiser Market Power in a Two-sided Market: A Bargaining Approach, Centre for Industrial Economics Workshop, Gilleleje, Nov. 23-24, 2006.
- Do Magazines' "Companion Websites" Cannibalize the Demand for the Print Version?, Wissenschaftszentrum Berlin für Sozialforschung, Sept. 11, 2006.
- Is self-employment really such a bad experience?, University of Frankfurt, June 2, 2006.
- Is self-employment really such a bad experience?, University of Basel, May 29, 2006.
- Do Magazines' "Companion Websites" Cannibalize the Demand for the Print Version?, Technical University of Berlin, May 4, 2006.
- Is self-employment really such a bad experience?, Centre for Applied Econometrics Workshop, University of Copenhagen, March 28, 2006.
- Is self-employment really such a bad experience?, 9<sup>th</sup> Cologne-Bonn colloquium in personnel economics, University of Zurich, March 7/8, 2006.
- Magazines and their Companion Websites: Competing Outlet Channels?, 4<sup>th</sup> International conference on Media Economics, University of the Federal Armed Forces Hamburg, Oct. 14/15, 2005.
- The effects of website provision on the demand for German women's magazines, Centre for Industrial Economics Workshop, Sørup Herregård, May 26/27, 2005.
- Price structure in two-sided markets: Evidence from the magazine industry, German Economic Association Annual Meeting, Dresden, Sept. 28 Oct. 1, 2004.
- Is there really no place like home for productivity?, 7<sup>th</sup> Cologne-Bonn colloquium in personnel economics, University of Bonn, March 3/4, 2004
- An estimated model of the German magazine market, University of Essen, Feb. 3, 2004.
- An estimated model for the German magazine market, University of Århus, Dec. 2003.
- The effects of website provision on the demand for German women's magazines, 2nd Workshop on media economics: How do media markets work?, Bergen Business School, Oct. 24/25, 2003.
- Product Innovation and Product Innovation Marketing: Theory and Microeconometric Evidence, German Economic Association annual Meeting (Jahrestagung des Vereins für Socialpolitik, University of Zurich, Oct. 3, 2003.
- Optimal Cover Prices and the Effects of Website Provision on Advertising and Magazine Demand, University of Darmstadt, July 22, 2003.
- When and why do magazines go online?, ZEW conference on "The Economics of Information and Communication Technologies", Mannheim; July 4-5, 2003
- Price structure in two-sided networks: Evidence from the magazine industry, University of Zurich, Dept. of Economics seminar series, June 26, 2003.
- Price structure in two-sided networks: Evidence from the magazine industry, University of Copenhagen, Dept. of Economics seminar series, May 22, 2003.
- When and why do magazines go online?, Copenhagen Business School, Dept. of Economics seminar series, May 5, 2003.

- When and why do magazines go online?, International Industrial Organization Conference, Boston, April 4-5, 2003.
- Denmark in the information society: challenges and policy options, Academic Day, University of Southern Denmark at Odense, April 1, 2003.
- Strategic Complementarities Between Different Types of ICT-expenditures, 5. Köln-Bonner Kolloquium zu Personalökonomie, Zurich, March 25-25, 2003.
- Optimal Cover Prices and the Effects of Website Provision on Advertising and Magazine Demand, Århus School of Business seminar, Dec. 9, 2002.
- Moving In and Out of Financial Distress: Evidence for Newly Founded Service Sector Firms, International workshop on the "Post-entry performance of firms: technology, growth and survival", University of Bologna, Nov. 22-23, 2002.
- Moving In and Out of Financial Distress: Evidence for Newly Founded Service Sector Firms, Centre for Economic and Business research Seminar Series, Copenhagen; Nov. 14, 2002.
- Should I Stay or Should I Go? An Estimated Model of Exit from the German Magazine Market, ZEW-conference "The Economics of Entrepreneurship and the Demography of Firms and Industries", Mannheim; October 3 4, 2002.
- Optimal Cover Prices and the Effects of Website Provision on Advertising and Magazine Demand, III. Symposium zur Ökonomischen Analyse der Unternehmung, Humboldt-Universität zu Berlin; September 30 –Oktober 2, 2002.
- Optimal Cover Prices and the Effects of Website Provision on Advertising and Magazine Demand, European Association for Research in Industrial Economics (EARIE) Annual Conference, Universidad Carlos III, Madrid, Spain, Sept. 5–8, 2002.
- Optimal Cover Prices and the Effects of Website Provision on Advertising and Magazine Demand, Wissenschaftszentrum Berlin für Sozialforschung, Berlin; Aug. 12, 2002.
- Optimal Cover Prices and the Effects of Website Provision on Advertising and Magazine Demand, ZEW conference on "The Economics of Information and Communication Technologies", Mannheim; June 24-25, 2002.
- Optimal Cover Prices and the Effects of Website Provision on Advertising and Magazine Demand, Industrial Organization Workshop, Harvard University, Cambridge, Mass., USA; April 26, 2002.
- The effects of website provision on the demand for German women's magazines, Centre for Industrial Economics at the University of Copenhagen Seminar Series, Copenhagen; Feb. 21, 2002.
- The effects of website provision on the demand for German women's magazines, National Bureau of Economic Research, Cambridge, MA, USA; Dec. 4, 2001.
- Applications to Models of Differentiated Product Demands: Cars, magazines and PCs. Industrial Organization Workshop, Harvard University, Cambridge, Mass., USA; Sept. 26, 2001.
- Productivity Effects of Organizational Change: Microeconometric Evidence, ZEW conference on "The Economics of Information and Communication Technologies", Mannheim; June 18-19, 2001.
- Product Innovation and Product Innovation Marketing: Theory and Microeconometric Evidence, workshop presentation at the Department of Organization Studies, University of Maastricht; March 29, 2001.

- Moving In and Out of Financial Distress: Evidence for Newly Founded Service Sector Firms, 25<sup>th</sup> Annual Conference of the German Classification Society, Munich; March 14-16, 2001.
- Productivity Effects of Organizational Change: Microeconometric Evidence, 25<sup>th</sup> Annual Conference of the German Classification Society, Munich; March 14-16, 2001.
- Efficient Bargaining and the Skill-Structure of Wages and Employment, Managerial Economics and Strategy Workshop, Faculty of Managerial Economics and Strategy, Catholic University of Leuven; Feb. 8, 2001.
- Moving In and Out of Financial Distress: Evidence for Newly Founded Service Sector Firms, Brown-Bag-Seminar for Applied Economics and Econometrics, Faculty of Economics, University of Mannheim; Feb. 7, 2001.
- Moving In and Out of Financial Distress: Evidence for Newly Founded Service Sector Firms, WZB Economics Seminar Series, Berlin; Nov. 27, 2000.
- Efficient Bargaining and the Skill-Structure of Wages and Employment, German Science Foundation workshop within the Industrial Economics and Input Markets program, Heidelberg; Nov. 9-10, 2000.
- Research Cooperation and Research Expenditures with Endogenous Absorptive Capacity: Theory and Microeconometric Evidence for the German Service Sector, 1<sup>st</sup> Symposium of the Analysis of the Firm, Koblenz-Vallendar; Oct. 5-7, 2000.
- Efficient Bargaining and the Skill-Structure of Wages and Employment, European Association of Researchers in Industrial Economics (EARIE) Annual Conference, Lausanne; Sep. 7-10, 2000.
- Research Cooperation and Research Expenditures with Endogenous Absorptive Capacity: Theory and Microeconometric Evidence for the German Service Sector, European Association of Researchers in Industrial Economics (EARIE) Annual Conference, Lausanne; Sep. 7-10, 2000.
- The Performance of German Firms in the Business-Related Service Sector, European Economic Association Annual Conference, Bozen; Aug. 30-Sep. 2, 2000.
- Research Cooperation and Research Expenditures with Endogenous Absorptive Capacity: Theory and Microeconometric Evidence for the German Service Sector, European Economic Association Annual Conference, Bozen; Aug. 30-Sep. 2, 2000.
- Research Cooperation and Research Expenditures with Endogenous Absorptive Capacity: Theory and Microeconometric Evidence for the German Service Sector, CIRANO/WZB conference on Innovation and Supermodularity, Montreal, Canada; June 15-16, 2000.
- Research Cooperation and Research Expenditures with Endogenous Absorptive Capacity: Theory and Microeconometric Evidence for the German Service Sector, CEPR/DFG/ZEW Conference on Industrial Structure and Input Markets, Mannheim; May 25-27, 2000.
- Research Cooperation and Research Expenditures with Endogenous Absorptive Capacity: Theory and Microeconometric Evidence for the German Service Sector, Seminar presentation, Free University of Brussels, Solvay School of Business; April 5, 2000.

- Tarifverträge und die Anpassung von Beschäftigung und Arbeitszeit: Empirische Evidenz für den deutschen Dienstleistungssektor, 3. Köln-Bonner Kolloquium zu Personalökonomie, Freiburg; March 3, 2000.
- R&D cooperation and R&D Intensity: Theory and Micro-Econometric Evidence for Germany, German Science Foundation workshop within the Industrial Economics and Input Markets program, Heidelberg; Nov. 29-30, 1999.
- Measuring Knowledge Spillovers in Manufacturing and Services: An Empirical Assessment of Alternative Approaches, International Conference on Innovation, Appropriation Strategies and Economic Policy, Paris; Nov. 19, 1999.
- New Technologies and the Demand for Heterogeneous Labor: Firm-level Evidence for German Business-related Services, German Economic Association, Mainz; Sep. 30, 1999.
- New Technologies and the Demand for Heterogeneous Labor: Firm-level Evidence for German Business-related Services, European Economic Association Annual Congress, Santiago de Compostela; Spain; Sep. 2-4,1999.
- R&D cooperation and R&D Intensity: Theory and Micro-Econometric Evidence for Germany, Econometrics Society European Meeting, Santiago de Compostela, Spain; Aug. 29-Sep. 1, 1999.
- New Technologies and the Demand for Heterogeneous Labor: Firm-level Evidence for German Business-related Services, Econometrics seminar, Université Louis Pasteur, Strassburg, France; May 10, 1999.
- New Technologies and the Demand for Heterogeneous Labor: Firm-level Evidence for German Business-related Services, TSER workshop at Herstmonceux castle, Sussex, England; Feb. 19, 1999.
- The Impact of new technology on the demand for heterogeneous labor: Empirical Evidence from the German Business-Related Services Sector, German Economic Association, Rostock; Sep. 24, 1998.
- Shifting employment patterns in business-related services: Empirical Evidence from German Survey data, Germany's Labor Market Problems: An Empirical Assessment, Humboldt University Berlin; Aug. 27, 1998.
- Shifting Employment Patterns in Business-related Services: Empirical Evidence from German Survey data, International Conference on Information and Communications Technologies, Employment and Earnings, Nizza Sophia-Antipolis, June 23, France; 1998.
- R&D cooperation and R&D intensity: Theory and Micro-Econometric Evidence for Germany, International conference on Innovation Survey Data, TSER network on R&D, innovation and productivity, Paris, France; June 18, 1998 (joint with G. Licht).
- The determinants of BUND-future price changes, German Finance Association, Mannheim, Oct. 19, 1997.
- The determinants of BUND-future price changes, German Economic Association, Berne, Switzerland; Sep. 26, 1997.

## **Conference Presentations — Practitioner**

- Presentation on "Software patents" at the annual conference of the "Nordisk Immaterialret" Association (NIR), Copenhagen, March 16, 2007.
- Press conference on "The State of Business of German of Business-related Services Firms", Frankfurt; Jan. 19, 2000.
- Press conference on "The Service Sentiment Indicator a New Leading Indicator for Business-related Services", vereinigte wirtschaftsdienste, Eschborn; April 20, 1998.
- Presentation "Business Trends in IT-services", Association of IT Managers (Bundesverband Bürokommunikation), Frankfurt; Dec. 9, 1998.
- Presentation "Business-related Services: Overall Economic Importance and Statistical Recording", German Industry Association (Bund Deutscher Industrie), Cologne; March 26, 1998.

# **Selected Publications in Newspapers and Magazines**

Press mentionings

On the relationship between private and public research

[8] "Forskning: Danske virksomheder bruger ikke offentlig forskning", Jyllands-Posten, August 21, 2006, Erhverv og Økonomi, p. 8.

On the economic value of Danish patents

- [7] "Danske virksomheder får en høj bonus af patenter", Børsen Jan. 31, 2006, Børsen IT Innovation, p. 1-3; link
- [6] "Værdier i patenter", Politiken 1. februar 2006, 1. sektion, p. 10
- [5] "Danske patenter er guld værd", Fyens Stiftstidende, Feb. 1., 2006
- [4] On patents as a basis for startups (in Danish): "Patenter er grundlag for nye virksomheder", Børsen, Jan. 31, 2006, p. 3, Børsen IT Innovation.
- [3] On German university policy: "Manifest Pro Science", Handelsblatt Karriere Oct. 2005.
- [2] On software patents: "Softwarepatent skader dansk økonomi", Børsen, Feb. 18, 2005.
- [1] "Softwarepatent skader SMV'er", Erhversbladet, March 8, 2005.

Press mentionings in relation to the "Grundfos prize 2003" Jyllands Posten, May 20, 2003 Børsen, May 20, 2003 De Bergske, May 20, 2003 Fyns Stiftstidende, May 20, 2003 Vejle Amts Folkblad, May 20, 2003

#### Letters to the editor

- [13] "Kvinder", weekendavisen, 22. december 2006.
- [12] "Ud med forskning", weekendavisen, Sept. 22, 2006, 1. sektion, p. 13.
- [11] On the Danish railway system: "Udskift togbanden", Berlingske Tidende August 7, 2006, 2 sektion, magasin, p. 10
- [10] On the Danish railway system: "DSBs fornemmelse for vejr", Berlingske Tidende June 15, 2006; reply by Claes Kastholm Hansen, Berlingske Tidende June 17, 2006
- [9] On high prices for car insurance: "Bilforsikrings-vrøvl", Berlingske Tidende May 28, 2006
- [8] On the Danish governments plans to merge universities: "Topklasse", weekend avisen, April 21, 2006
- [7] On the European service directive: "Liberaliseringsfobi" (in Danish), Politiken, Feb. 17, 2006
- [6] On the Danish "kulturkanon": "Brændte grillpølser i madkanonen" (in Danish), information, Feb. 16, 2006
- [5] On the planned merger between CBS, DTU and Risø: "Elitefusionen" (in Danish), Politiken, Jan. 3, 2006
- [4] On the weired Danish grade point system: "Underligt karaktersystem" (in Danish), Berlingske Tidende Dec. 17, 2005
- [3] On the Danish royal family: "Længe leve kongehuset", Information Nov. 10, 2005
- [2] On taxation: "Spild af gode akademikerkræfter", Berlingske Tidende Oct. 24, 2005.
  reply by Claes Kastholm Hansen, Berlingske Tidende Oct. 27, 2005
- [1] On immigration: "Et- og fler-sprogede", Information, Oct. 22, 2005.

#### Own independent contributions

- [17] Udfordringer for forskningspolitikken, kronik, Jyllands-Posten, May 20, 2003 (in Danish, joint with Svend Erik Hougaard Jensen, Nikolaj Malchow-Møller, Jan Rose Skaksen and Anders Sørensen.
- [16] Werbeagenturen erhalten Impulse durch Liberalisierung, Handelsblatt; Feb. 7, 2000.
- [15] Unternehmensnahe Dienstleister im Aufwind, management berater; Feb. 2000.

- [14] Unternehmensberater warten auf Impulse, Handelsblatt; Sep. 27, 1999.
- [13] Viele Dienstleister sind nicht tarifgebunden, Handelsblatt; July 26, 1999.
- [12] Werbewirtschaft befindet sich im Aufwind, Handelsblatt; July 23/24, 1999.
- [11] EDV-Dienstleister bleiben optimistisch, Handelsblatt; May 11, 1999.
- [10] Aussichten unternehmensnahe Dienstleister, management berater; March 1999 (joint with K. Voß).
- [9] Abfallwirtschaft ohne Impulse, Handelsblatt; Feb. 16, 1999.
- [8] Unternehmensnahe Dienstleister: Keine weitere konjunkturelle Verbesserung, management berater; Dec. 1998 (joint with K. Voß).
- [7] Weniger Schwung bei Spediteuren, Handelsblatt; Dec. 8,1998.
- [6] Fahrzeug- und Maschinenvermieter mit anhaltendem Wachstum, Handelsblatt; July 29, 1998.
- [5] Die Werbewirtschaft spürt eine frische Brise, Handelsblatt; June 12/13, 1998.
- [4] Unternehmensnahe Dienstleister: Zwischengas, management berater; June 1998 (joint with K. Voß).
- [3] Architekten leiden unter der Bauflaute, Handelsblatt; April 14, 1998.
- [2] Steuer- und Unternehmensberater im konjunkturellen Hoch, Handelsblatt; Nov. 11, 1997.
- [1] EDV-Dienstleister in konjunktureller Hochstimmung, Handelsblatt; July 31, 1997.

Odense, October 22, 2007

#### **CURRICULUM VITAE**

#### Thomas Rønde

#### **ADDRESS**

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Studiestræde 6 E-mail: thomas.ronde@econ.ku.dk

DK-1455 Kbh. K, Denmark

#### PERSONAL DATA

Nationality: Danish Date of birth: 23.04.1970

#### **CURRENT POSITION**

Associate Professor, Department of Economics, University of Copenhagen (KU),

#### **OTHER AFFILIATIONS**

Long-term member of the Centre for Industrial Economics (CIE) at KU Research affiliate of the Center of Economic Policy Research (CEPR),

Research fellow of the Centre for Economic and Business Research (CEBR).

#### **EDUCATION**

July 1999 Ph.d. in economics, University Pompeu Fabra (UPF).

Title: 'Three Essays in Industrial Organization'.

Supervisors: Kai-Uwe Kühn and Massimo Motta.

Sept. 1997 M.Sc. in economics, KU.

June 1995 M.Sc. in economics, UPF.

**RESEARCH** Banking, financial regulation and stability.

R&D, management of technology, and intellectual property rights.

**TEACHING** Contract theory, game theory, and industrial organization.

#### ACADEMIC POSITIONS

August 2003 - Associate Professor, Department of Economics, KU.

March 2003 - July 2003 Assistant Professor, Department of Economics, Copenhagen
Business School.

Sept. 2002 - Feb. 2003 Post-doctoral Fellow, LEFIC, Copenhagen Business School.

Sept. 1999 - Sept. 2002 Assistant professor, Department of Economics, University of Mannheim.

#### PUBLICATIONS IN INTERNATIONAL JOURNALS

- 'Foreign Direct Investments and Spillovers through Workers' Mobility,' joint with Andrea Fosfuri and Massimo Motta, *Journal of International Economics*, February 2001, 53, p. 205-222 [30 citations in the ISI Web of Knowledge].
- 'Trade Secrets and Information Sharing,' *Journal of Economics and Management Strategy*, Fall 2001, 10, p. 391-417.
- 'Regulating Access to International Large-Value Payment Systems,' joint with Cornelia Holthausen, *The Review of Financial Studies*, Winter 2002, 15, p. 1561-1586.
- 'High-tech Clusters, Technology Spillovers, and Trade Secret Laws,' joint with Andrea Fosfuri, *International Journal of Industrial Organization*, January 2004, 22, p. 45-65.
- 'Project Choice and Risk in R&D,' joint with Heiko Gerlach and Konrad Stahl, *Journal of Industrial Economics*, March 2005, LIII, p. 53-81.

#### PUBLICATIONS IN DANISH JOURNALS

- 'A Danish View on Software-Related Patents,' joint with Ulrich Kaiser, *Nationaløkonomisk Tidsskrift*, 2004, 142, p. 301-13.

#### **WORKING PAPERS**

- 'Cooperation in International Banking Supervision,' *CEPR Discussion Paper No.* 4990 (rewrite and resubmit *Rand Journal of Economics*), joint with Cornelia Holthausen.
- 'Organizational Inertia, Reorganization and Employee Autonomy,' (rewrite and resubmit *European Economic Review*), joint with Martin Ruckes.
- 'Trade Secret Laws, Labor Mobility, and Innovations,' *CEPR Discussion Paper No.* 3615, joint with Massimo Motta.
- 'Labor Pooling in R&D Intensive Industries,' joint with Heiko Gerlach and Konrad Stahl.
- 'Regulation of Banking Groups,' FRU WP 2006/01, joint with Thomas Harr.
- 'Leveraging Resistance to Change and the Skunk Works Model of Innovation,' joint with Andrea Fosfuri.

#### **CURRENT RESEARCH PROJECTS**

- 'Exclusive contracts, between foreclosure effects and incentives to invest,' joint with Chiara Fumagalli and Massimo Motta.
- 'Labor Mobility and Technology Spillovers: Evidence from Danish Patenting Firms,'
   joint with Ulrich Kaiser and Hans-Christian Kongsted.

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#### PRESENTATIONS AT CONFERENCES

CEPR Meeting 'The Evolution of Market Structure in Network Industries' (Heidelberg 2000), CEPR/ECB Conference on Competition, Stability and Integration in European Banking (Brussels 2005), 3<sup>rd</sup> Conference on the Economic Geography of Europe (Villars 2003), Congress of the European Economic Association (1999 and 2006), DIW Conference on Agglomeration and Regional Labour Markets (Berlin 2002), EARIE (2000 and 2005), Econometric Society World Congress (2000), European Meeting of the Econometric Society (2002), The European Network on Interfirm Relations (Bilbao, 1997), 4<sup>th</sup> and 5<sup>th</sup> Nordic Workshop in IO (Copenhagen 2003 and Reykjavik 2005), TMR Meeting 'Financial Market Efficiency, Corporate Finance, and Regulation' (Barcelona 2000), WZB Conference on Economics and Psychology (Berlin 2003), WZB Conference on Antitrust and Innovation (Berlin, 2006).

#### **INVITED SEMINARS**

Catholic University Milan, Copenhagen Business School (CEBR, Department of Economics, Department of Finance, Department of Industrial Economics and Strategy), Cemfi (Madrid), European University Institute (Florence), Free University Berlin, Social Science Center Berlin, Stockholm School of Economics (SITE), University of Antwerp, University of Auckland, University Carlos III (Madrid), University College Dublin, University of Copenhagen, University of Helsinki, University of Lecce, University of Leuven, University of Mannheim, University of Naples (Federico II), University Pompeu Fabra (Barcelona), University of Salerno (CSEF), University of Southern Denmark (Odense), University of Strathclyde (Glasgow), University of Zurich, University of Aarhus.

#### AWARDS AND GRANTS

- Grant from The Danish Social Science Research Council (2004-2007): 'Human Capital, Patenting Activity, and Technology Spillovers,' joint with Ulrich Kaiser [DKK 2.5 millions].
- Grant from the European Commission (COST) for the European research network 'Science and Technology Research in a Knowledge-based Economy (STRIKE).' Member of the management committee for Denmark.
- 'The Invisible Hand Award' in 2004 (the yearly teaching award granted by the Department of Economics, Uni. Copenhagen, and the Society of Social Economics).
- Jean Monnet Fellow, European University Institute, 2005/6.

#### OTHER PROFESSIONAL ACTIVITIES AND DUTIES

- Deputy member of the Danish Competition Council.
- Co-organizer of the CEPR Meeting 'The Evolution of Market Structure in Network Industries' (Heidelberg, 2000) and 'The Zeuthen Workshop' (Copenhagen, 2004).
- Refereeing activity: EARIE Conference 2004 and 2005, EEA 2007, EFA 2006, Canadian Journal of Economics, European Economic Review, International Journal of Business and Economics, International Journal of Industrial Organization, Journal of Economic Behavior and Organization, Journal of Economics and Management Strategy, Journal of the European Economic Association, Journal of Industrial Economics, Journal of International Economics, Journal of International Trade and Development, Journal of Political Economy, Labour Economics, Management Science, MIT Press, Rand Journal of Economics, Regional Science and Urban Economics, Review of Development Economics, Scandinavian Journal of Economics, Scandinavian Journal of Management.

#### **SUPERVISION**

- Kirsten Bonde, Ph.D. student at University of Copenhagen.
- Cedric Schneider, Ph.D. student at CEBR and University of Southern Denmark, joint supervision with Ulrich Kaiser [Defense: September 2007]. Current employment: CBS (Department of Economics) and University of Leuven.
- Pablo Selaya, Ph.D. student at University of Copenhagen, joint supervision with Finn Tarp.
- Kathrine Thrane Bløcher, Ph.D. student at University of Copenhagen, joint supervision with Hans-Christian Kongsted.

#### **CURRICULUM VITAE**

#### MARGARET K. KYLE

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#### **CURRENT POSITION:**

Assistant Professor 2006-present
Departments of Strategic and International Management and Economics
London Business School

#### **PREVIOUS POSITIONS:**

Assistant Professor 2004-2006 Fuqua School of Business

Duke University

Assistant Professor 2002-2004

Tepper School of Business (formerly Graduate School of Industrial Administration) Carnegie Mellon University

Visiting Scholar 2003

Center for the Study of Innovation and Productivity

Federal Reserve Bank of San Francisco

Research Assistant 1995-1997

Division of Research and Statistics

Board of Governors of the Federal Reserve System

#### RESEARCH INTERESTS:

Industrial Organization; Productivity; Economics of Innovation; Management Strategy

#### **EDUCATION**:

Massachusetts Institute of Technology, PhD (Economics)

Thesis Title: "Entry and Exit in Innovative Industries"

1997 - 2002

Cornell University, B.S. with honors 1992 - 1995

#### GRANTS, HONORS, SCHOLARSHIPS, AND FELLOWSHIPS:

2002 – 2004: Carnegie-Bosch Institute Faculty Development Grant

1997 – 1999: MIT Fellowship in Economics

1992 – 1993: National Merit Scholarship

1992 – 1993: Dean's Scholar, Cornell University

#### PUBLISHED OR FORTHCOMING PAPERS:

#### 1. Refereed Journals

"Deregulating Direct-to-consumer Marketing of Prescription Drugs: Effects on Prescription and Over-the-counter Sales" with Ernst R. Berndt and Davina Ling (2002), *Journal of Law and Economics* 44 (3), 691-723.

"Surviving the Gales of Creative Destruction: The Determinants of Product Turnover," with John M. de Figueiredo (2006), *Strategic Management Journal* 27(3), 241-264.

"Objective and Self-Reported Work Performance Measures: A Comparative Analysis," with Glenn Pransky, Ernst Berndt, Stan Finkelstein, Joan Mackell, and Dan Tortorice (2006), *International Journal of Productivity & Performance Management* 55(5), 390-399.

"The Role of Firm Characteristics in Pharmaceutical Product Launches," *RAND Journal of Economics*, Autumn 2006, 37(3), 602-618.

"Pharmaceutical Price Controls and Entry Strategies," *Review of Economics and Statistics*, February 2007, 89(1), 88-99

"Public & Private Spillovers, Location, and the Productivity of Pharmaceutical Research," with Jeff Furman, Iain Cockburn, and Rebecca Henderson, December 2004. Forthcoming in *Annales d'Economie et Statistique*.

"Generic Competition and Market Exclusivity Periods in Pharmaceuticals," with Henry Grabowski, *Managerial and Decision Economics*, June-August 2007, 28(4-5), 491-502.

"Would Greater Price Transparency and Uniformity Benefit Poor Patients?" with David Ridley, *Health Affairs* Sept/Oct 2007, 26(5).

#### 2. Book chapters or conference proceedings

"Did U.S. Bank Supervisors Get Tougher During the Credit Crunch? Did it Matter to Bank Lending?" with Allen N. Berger and Joseph M. Scalise in *Prudential Supervision: What Works and What Doesn't*, edited by Frederic Mishkin (Chicago: University of Chicago Press, 2001).

"The Long Shadow of Patent Expiration: Do Rx to OTC Switches Provide an Afterlife?" with Ernst R. Berndt and Davina Ling, in *NBER Conference Volume on Scanner Data and Price Indexes*, edited by Robert Feenstra and Matthew Shapiro (Chicago: University of Chicago Press, 2003).

"Product Launch Decisions by Dominant and Fringe Firms" with John M. de Figueiredo, *Best Paper Proceedings of the Academy of Management*, 2005.

#### 3. Other

"Does Locale Affect R&D Activity? The Case of Pharmaceuticals," *Federal Reserve Bank of San Francisco Economic Letter*, Nov. 13, 2004.

#### **WORKING PAPERS:**

"Strategic Responses to Parallel Trade," March 2007.

"Does Re-importation Reduce Price Differences for Prescription Drugs? Lessons from the European Union," with Jennifer Allsbrook and Kevin Schulman, August 2007.

"The Influence of TRIPS on Global Trade in Pharmaceuticals, 1994-2005," with Mercedes Delgado and Anita McGahon, July 2007.

"Estimating the Effects of Competitor Characteristics on Entry," May 2002.

#### **RESEARCH IN PROGRESS:**

"Corporate IP Donations to Universities: Are Donated Patents Lemons or Orphans?"

"R&D Investment and Market Size: Micro Evidence from the Pharmaceutical Industry"

"Strategic Disclosure of Research Results in Clinical Trials" with Emeric Henry.

"Consolidation and Productivity in the Pharmaceutical Industry," with Henry Grabowski.

"Why Do Firms Donate Intellectual Property? Corporate Involvement in Open Source," with Markus Reitzig.

#### **TEACHING:**

#### At LBS:

Economics of Competitive Strategy (MBA elective), Fall 2006.

Core Strategy

SEMBA and JEMBA programs, Spring and Summer 2007.

#### At Duke:

Core Strategy

Cross-continent Executive MBA program, Fall 2005.

Joint Fugua-Goethe program, Spring 2006.

Management of Innovation and Technology

Cross-continent Executive MBA program, Fall 2004, Fall 2005.

Daytime MBA program, Spring 2005.

#### At Carnegie Mellon:

Technology Strategy (MBA elective). Spring 2003 (2 sections), Spring 2004 (4 sections)

Technology Strategy (undergraduate elective). Spring 2003

Economics of Innovation (PhD course). Spring 2004

#### **INVITED PRESENTATIONS AND CONFERENCES:**

#### 2001-2002:

Boston University School of Management, UC-Irvine Graduate School of Management, Carnegie Mellon University GSIA, Washington University in St. Louis, Olin School of Business, University of Michigan, Ford School of Public Policy, U.S. Department of Justice, UC-Davis Department of Economics, Federal Reserve Bank of San Francisco, Board of Governors of the Federal Reserve System, University of Toronto Rotman School of Management, London Business School, University of Washington, School of Business, NBER Productivity Lunch, NBER Summer Institute.

#### 2002-2003:

Duke University Fuqua School of Business, Stanford Strategic Management Conference, International Health Economics Conference, NBER-CREST Joint Conference on R&D, Education, and Productivity.

#### 2003-2004:

Federal Reserve Bank of San Francisco, Wharton Technology Miniconference, Northwestern University Kellogg Graduate School of Management, International Schumpeter Society Conference.

#### 2004-2005:

NBER Productivity Lunch, Duke University Department of Economics, University of Miami, Cornell University.

#### 2005-2006:

Lehigh University, University of Toulouse, London Business School, HEC Lausanne, London School of Economics, Imperial College Tanaka School of Business, New York University, NBER Summer Institute.

#### 2006-2007:

OECD Committee for Science and Technological Policy meeting, DRUID Winter Conference, Strategy Research Forum, International Health Economics Association Conference, NBER Preconference on Location of Biopharmaceutical Activity.

#### **REFEREE**:

American Economic Review, Review of Economics and Statistics, RAND Journal of Economics, Journal of Industrial Economics, Management Science, Strategic Management Journal, Research Policy, Journal of Health Economics, Health Affairs, Economics of Innovation and New Technology, Journal of Economic and Business Statistics, Journal of Banking and Finance, Journal of Money, Credit and Banking, International Journal of Health Care Finance and Economics, Review of Industrial Organization, Academy of Management Journal, Social Science and Medicine, National Science Foundation, UK Economic and Social Research Council, Netherlands Organisation for Scientific Research

#### PROFESSIONAL MEMBERSHIPS:

Faculty Research Fellow (Productivity Program), National Bureau of Economic Research Research Associate (Industrial Organization), Centre for Economic Policy Research American Economic Association
International Health Economics Association
International Industrial Organization Society
International Schumpeter Society
Academy of Management