
Gregory S. Crawford

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Education

Ph.D. in Economics, Stanford University, Stanford, CA, 1998
B.A., Economics (with Honors), University of Pennsylvania, Philadelphia, PA, 1991

Professional Experience

Chief Economist, [Zalando](#), September 2022-present

Lead the Economics and Experimentation organization, whose mission is (1) to support senior leaders' high-impact business decisions with the most trustworthy available scientific evidence and (2) to foster a robust data-driven decision-making culture across the company through standards, processes and structure. In order to produce trustworthy evidence, the group leverages a range of scientific methodologies, first and foremost randomized experiments (we own Zalando's experimentation platform) but also observational causal inference, machine learning, structural methods, or a combination of these. In addition, I am personally accountable for delivering insights about the customer relevance of our assortment via the Locally Relevant Assortment (LRA) framework and working with teams across the company to integrate these insights into our business decisions and test their value. In this role, I seek to help both Zalando and its brand partners meet their commercial multi-brand retail goals and make the fashion industry more efficient and sustainable.

University of Zurich, Department of Economics

[Professor of Applied Microeconomics](#), May 2013-present
Part-time, September 2022-present

Courses taught: *Graduate*: Structural Estimation in Applied Microeconomics (PhD), Empirical Industrial Organization (PhD), Cross-Section and Panel Data Econometrics (MSc), Empirical Methods (1st-year MSc Econometrics)

Centre for Economic Policy Research (CEPR)

Co-founder (w/ Cristina Caffarra) and Director, [Competition Policy RPN](#), 2021-current
Co-Director, Industrial Organization Programme, 2014-2020

Research Fellow, 2011-current

University of Warwick, Department of Economics

Professor of Economics, September 2008-July 2013

Director of Research Impact, August 2012-July 2013

Director of Research, September 2009-July 2012

Courses taught: *Graduate*: Empirical Industrial Organization (MSc/PhD), Empirical Methods. *Undergraduate*: Introductory Econometrics (time series, limited dependent variables, panel data), Undergraduate Business Strategy.

Federal Communications Commission (FCC)

Chief Economist, September 2007 - August 2008

Reported to the then-FCC Chairman, Kevin Martin. Primary responsibilities were to advise the Chairman and his staff regarding the economic issues facing the Commission, to formulate and implement desired policies, to communicate and discuss these policies with senior Commission staff, and to assist as needed the 40+ staff economists. Main workstreams focused on the cable and satellite industries, including bundling and tying in wholesale and retail cable and satellite television markets and the economic analysis of XM/Sirius satellite radio merger. Also consulted on spectrum auction design, net neutrality, access pricing, ownership rules, and various international policy issues. Previous to joining the Commission, wrote a sponsored study analyzing media ownership and its impact in television markets.

University of Arizona, Department of Economics

Associate Professor of Economics, September 2008-August 2009 (on leave)

Assistant Professor of Economics, September 2002-August 2008 (on leave, 2007-08)

Courses taught: *Graduate*: Empirical Industrial Organization (2nd-year PhD), Business Strategy (MBA) *Undergraduate*: Introductory Econometrics (cross-section).

Duke University, Department of Economics

Assistant Professor of Economics, September 1997-August 2002

Courses taught: *Graduate*: Empirical Industrial Organization (2nd-year PhD), Graduate Econometrics (1st-year PhD), *Undergraduate*: Introductory Econometrics (cross-section), Introductory Microeconomics, The Economics and Statistics of Sports.

Professional Affiliations and other Academic Appointments

Association of Competition Economists (ACE)

Steering Committee, January 2016-December 2018

Florence Competition Program in Law and Economics, EUI, Florence

Scientific Committee, June 2017-present

UBS International Center of Economics in Society, University of Zurich

Affiliated Professor, October 2018-present

Mannheim Centre for Competition and Innovation (MaCCI)

Research Fellow, December 2016-present

Visiting Professor, European School of Management and Technology, Berlin, Summer 2007.

Visiting Professor, Fuqua School of Business, Duke University, 2000-2001

Consulting Experience (last 10 years)

Cases (Region/Country)

Developing empirical measures supporting theories of harm for a large US media merger, 2026, consulting expert. Served as advisor to identify pragmatic data patterns illustrating the harms to dynamic competition of a large proposed US media merger.

Business strategy consulting for a large European digital platform (EU), 2021-ongoing, consulting expert – Am advising on questions of business strategy for a large European digital platform.

Evaluating theories of self-preferencing for a large digital platform, 2021-ongoing, lead expert – Am designing and implementing empirical research to assess claims of self-preferencing against a large digital platform.

Evaluating theories of vertical harm for a large digital platform (EU), 2020, consulting expert – Helped assess the potential harms of a foreclosure strategy for a large digital platform defending itself against a complaint before the EC from a rival in a digital services market.

Evaluating theories of harm for a Regional Sports Network (US), 2019, consulting expert – Helped a Regional Sports Network client considering filing a complaint against large US pay-television distributors form and articulate potential theories of harm.

Evaluating competitive harms for a telecommunications merger (EU), 2018-2019, consulting expert – Designed and executed multiple empirical studies evaluating the consequences of a large European telecommunications merger, including its impact on negotiated transmission fees for content and broadband prices for a proceeding before DG Comp.

Evaluating competitive harms for a telecommunications merger (EU), 2018-2019, consulting expert – Designed and executed a study evaluating the consequences of a telecommunications merger before the Belgian Competition Authority.

Evaluating switching consequences of early termination fees (EU), 2018-2019, lead expert – Designed and executed an econometric study evaluating the consequences on customer switching of early termination fees for a large EU communications provider for a proceeding before its home country sector regulator.

Evaluating competitive harms for a television industry merger (US, EU), 2018-2019, consulting expert – Advised on potential vertical harms in Europe for a proposed merger between large US content providers (with some EU distribution assets).

Evaluating damages (EU), 2017-present, consulting expert – Advised on econometric model evaluating potential damages in a large EU price fixing matter.

Evaluating plurality issues in Fox-Sky (UK), 2017-18, consulting expert – Advised on plurality consequences of proposed acquisition of Sky by 21st-Century Fox before the UK’s CMA.

Recommending a distribution of cable copyright royalties (US), 2014-2018, testifying expert – Provided direct and rebuttal testimony to copyright royalty judges on behalf of the National Association of Broadcasters regarding relative market value of programming provided on the distant broadcast signals carried by U.S. cable systems. In deviation from past precedent, Judges adopted our proposed approach as basis for distribution order.

Recommending royalties for sound recording performance rights on cable television systems (US), 2016-2017, testifying expert – Submitted direct and rebuttal testimony to copyright royalty judges on behalf of Music Choice regarding reasonable rates for sound recording performance rights on U.S. cable television systems.

A la carte offerings on pay television system (outside Europe), 2016, consulting expert – Advised pay-television operator regarding regulatory submission to require them to provide television channels on an a la carte basis.

Policy Publications and Related (by topic, most recent first)

Regulation of Digital Platforms:

“More Competitive Search Through Regulation,” (with Alessandro Bonatti, L. Elisa Celis, David Dinielli, Paul Heidhues, Michael Luca, Tobias Salz, Monika Schnitzer, Fiona Scott Morton, Katja Seim, Michael Sinkinson, and Jidong Zhou), [Digital Regulation Project Policy Discussion Paper No. 2](#), Tobin Center for Economic Policy at Yale, 20 May 2021

Consumer Protection:

“Consumer Protection for Online Markets and Large Digital Platforms,” (with Jacques Cremer, David Dinielli, Amelia Fletcher, Paul Heidhues, Michael Luca, Tobias Salz, Monika Schnitzer, Fiona Scott Morton, Katja Seim, Michael Sinkinson), [Digital Regulation Project Policy Discussion Paper No. 1](#), Tobin Center for Economic Policy at Yale, 20 May 2021

Privacy and Competition Policy:

“The Antitrust Orthodoxy is Blind to Real Data Harms,” (with Cristina Caffarra and Johnny Ryan), [Vox EU](#), 22 April 2021

Google-Fitbit (7-12/2020):

Submission to Australian Competition and Consumer Commission regarding the inadequacy of Google’s proposed undertaking (remedies) to address harms from the Google-Fitbit merger (with Cristina Caffarra and Paul Heidhues), 9 December 2020

“Google/Fitbit will monetise health data and harm consumers,” (with 16 IO economists), [Vox EU](#), 30 September 2020 (lead author)

Amicus Brief encouraging a Statement of Objection to the proposed Google-Fitbit merger, (with 13 IO economists), submitted to European Commission and Australian Competition and Consumer Commission, 29 September 2020 (lead author)

Amicus Brief encouraging Phase 2 investigation of proposed Google-Fitbit merger, (with 15 European IO economists), submitted to European Commission and Australian Competition and Consumer Commission, 22-23 July 2020 (co-lead author)

“Europe must not rush Google-Fitbit deal” (Op-Ed with 6 other authors), [Politico](#), 22 July 2020 (signatory)

The EC’s “New Competition Tool” (6-10/2020):

“An economic evaluation of the EC’s proposed ‘New Competition Tool,’” (with Patrick Rey and Monika Schnitzer), Report of the EC’s DG Competition’s Economic Advisory Group on Competition Policy (EAGCP), October 16, 2020, available [here](#).

The ACCC’s use of bargaining to foster payments from DDPs to news orgs (8-9/2020):

“The ACCC’s ‘bargaining code’: A path towards ‘decentralised regulation’ of dominant digital platforms?,” (with Cristina Caffarra), [Vox EU](#), 26 August 2020

- A related version published as a [CEPR Policy Insight](#), 20 Sep 2020

- A related version published on [ProMarket](#), 25 Sep 2020

Innovation losses when DDPs buy potential competitors (5/2020):

“‘How Tech Rolls’: Potential competition and ‘Reverse’ Killer Acquisitions,” (with Cristina Caffarra and Tommaso Valletti), [Vox EU](#), 11 May 2020

Vertical merger policy (2018-2019):

“AT&T/Time Warner and Antitrust Policy Toward Vertical Mergers,” (with Robin S. Lee and Michael D. Whinston and Ali Yurukoglus), *Competition Policy International (CPI) Antitrust Chronicle*, July 2019.

- Ungated PDF available [here](#)

“Kabuki Dances or Rube Goldberg Machines: Vertical Analysis of Media Mergers,” (with Cristina Caffarra and Helen Weeds), *Competition Policy International (CPI) Antitrust Chronicle*, August 2018.

- Ungated PDF available [here](#)

Keynote and Invited Lectures (previous and planned)

“The BBC and Brexit,” 5th Economics of Media Bias Workshop, (Berlin, 3/22)

“The Case to Investigate in Google-Fitbit (and its implications for academic IO research), ”
European Association of Research in Industrial Economics (EARIE) Invited Session,
University of Bologna (remotely), 28 August 2020 (slide deck available on request)

“The Problems with (Dominant) Platforms,” 11th Paris Conference on Digital Economics
Telecom Paris, Paris, 6 April 2019

“Vertical Integration in Media and Communication Markets,” 2014 Scientific Seminar on the
Economics & Policy of Communications and Media Markets, Florence School of Regulation, EUI,
(Florence, 3/14)

“Vertical Integration in Media and Communication Markets,” 5th Workshop on the Economics of ICT
University of Porto (Porto, Portugal, 3/14)

Policy presentations and panels (by topic, most recent first)

Privacy and Competition Policy:

“Privacy and Antitrust: “Integration”, not just “Intersection,” (w/ Cristina Caffarra,
co-organizer and co-moderator) [Video](#), 17 June 2021

Media Policy:

“Digital Platforms and News: The Australian Bargaining Code,” 2021 RES Annual Conference, Ofcom
Special Session: The Economic Rationale for Public Service Media (Online, 4/21)

“Media Mergers: Plurality and Vertical Concerns,” 2018 Jevons Colloquium: Future Perspectives
on Media Markets (Panel, Rome, 5/18)

Google/Fitbit:

“Google-Fitbit Theories of Harm, ” Presentation to the (Dutch) Authority for Consumers and
Markets (ACM), 30 September 2020 (slide deck available on request)

Digital Platforms:

“What should IO economists be working on in tech?”, CEPR Applied IO Policy Panel, CEPR
Virtual Industrial Organization Seminar (VIOS), (Moderator, Online, 6/20)

“The regulation of the digital economy,” Round Table, 13th Digital Economics Conference,
(Panelist, Toulouse, 1/20)

“Drawing Lessons from the Digital Reports,” Plenary Session, Association of Competition
Economists (ACE), (Moderator, Copenhagen, 11/19)

“Post-Big Data: Competition & Regulation vs Industry Standards & Solutions”, CRA Roundtable

Discussion, (Roundtable participant, London, 5/18)

Horizontal and Vertical Integration in Television Markets:

“Media Mergers: Plurality and Vertical Concerns,” 2018 Jevons Colloquium: Future Perspectives on Media Markets (Panel, Rome, 5/18)

“Vertical Media Deals: EU, US, Bargaining Models and a Kabuki Dance...,” GCR TMT Conference (Joint with Cristina Caffarra, CRA, Panel, London, 5/18)

“Liberty/Ziggo and Liberty/DeVijver: Phase II Cable mergers in the Netherlands and Belgium,” Association of Competition Economists (ACE, Academic Discussant, Bocconi University, (Milan, 11/15)

“Horizontal and Vertical Integration in Media and Communication Markets,” DG Competition (Brussels, 10/14)

“Horizontal and Vertical Mergers in TV Markets: A US and European Perspective,” 2nd E.CA Competition Law and Economics Expert Forum (Berlin, 3/14)

Mergers and Innovation:

“Innovation and Merger Assessment,” GCR Live IP, Antitrust, and Innovation Conference (Brussels, 3/18)

“Mergers and Innovation: An Empirical View,” Association of Competition Economists (ACE) Conference (Madrid, 11/17)

Market Definition:

“Market Definition in the Digital Era: (Theoretical and) Measurement Issues,” E.CA Expert Forum 2017 (Brussels, 5/17)

Selective Distribution and Vertical Restraints:

“Selective Distribution and 3rd-Party Platforms: A few questions,” CRA Conference on Economic Developments in European Competition Policy (Panel, London, 12/17)

Damages:

“Damages Litigation: Issues and Challenges in Complex Antitrust Cases,” CRESSE 2016 (Panel, Rhodes, 7/16)

Miscellany:

“The (Empirical) Economics of Television Markets,” Workshop on TV, Economics, and Society (WZB, Berlin, 11/14)

“Understanding ‘New Media’ and its lessons for non-media industries,” University of Zurich Dept. of Economics, Advisory Board Meeting (Zürich, 11/13)

“How much is too much? A closer look at choice in the entertainment industry,” The Future of Broadcasting Conference (London, 6/12)

“New Media: Economic Perspectives,” University of Warwick, Window on Research

(Coventry, UK, 6/11)

“Doing Good with (Good) Econometrics,” Warwick Economics Summit, University of Warwick, (Coventry, UK, 2/11)

Commissioned Research

“Empirical analysis of BT’s automatically renewable contracts,” (with ESMT Competition Analysis, Commissioned Research Study for the Office of Communications), August 2010. Also Supplementary Report, February 2011.

“Television Station Ownership Structure and the Quantity and Quality of TV Programming,” (Commissioned Research Study for the Federal Communications Commission), July 2007.

Academic Publications

“A survey of preference estimation with unobserved choice set heterogeneity,” (with Rachel Griffith and Alessandro Iaria), *Journal of Econometrics*, v222n1A (May 2021), 4-43.

“Quality Overprovision in Cable Television Markets,” (with Matthew Shum and Oleksandr Shcherbakov), *American Economic Review*, v109n3 (March 2019), 956-995.

“Asymmetric Information and Imperfect Competition in Lending Markets,” (with Nicola Pavanini and Fabiano Schivardi), *American Economic Review*, v108n7 (July 2018), 1659-1701.

- Summarized for *VoxEU*, 30 April 2015

“The Welfare Effects of Vertical Integration in Multichannel Television Markets,” (with Robin Lee, Michael Whinston, and Ali Yurukoglu), *Econometrica*, v86n3 (May 2018), 891-954.

- Summarized for *Microeconomic Insights*, September 2019

“The Economics of Television and Online Video Markets,” Chapter 7 in Anderson, S., Waldfogel, J., and D. Stromberg, *Handbook of Media Economics*, volume 1A, 2016 Elsevier Press.

“Cable Regulation in the Internet Era,” Chapter 3 in Rose, N., ed, “Economic Regulation and Its Reform: What Have We Learned?”, 2014, University of Chicago Press.

“Accommodating Endogenous Product Choices: A Progress Report,” *International Journal of Industrial Organization*, v30 (2012), 315-320.

“The Welfare Effects of Bundling in Multichannel Television Markets,” (with Ali Yurukoglu), *American Economic Review*, v102n2 (April 2012), 643-685 (lead article).

“Price Discrimination in Service Industries,” (with A. Lambrecht, K. Seim, N. Vilcassim,

A. Cheema, Y. Chen, K. Hosanger, R. Iyengar, O. Koenigsberg, R. Lee, E. Miravete, and O. Sahin), *Marketing Letters*, v23 (2012), 423-438.

“Economics at the FCC: 2007-2008,” (with Evan Kwerel and Jonathan Levy), *Review of Industrial Organization*, v33n3 (November 2008), 187-210.

“The Discriminatory Incentives to Bundle: The Case of Cable Television,” *Quantitative Marketing and Economics*, v6n1 (March 2008), 41-78.

- Winner, 2009 Dick Wittink Prize for the best paper published in the *QME*

“Bidding Asymmetries in Multi-Unit Auctions: Implications of Bid Function Equilibria in the British Spot Market for Electricity, (with Joseph Crespo and Helen Tauchen), *International Journal of Industrial Organization*, v25n6 (December 2007), 1233-1268.

“Bundling, Product Choice, and Efficiency: Should Cable Television Networks Be Offered A La Carte?,” (with Joseph Cullen), *Information Economics and Policy*, v19n3-4 (October 2007), 379-404.

“Monopoly Quality Degradation and Regulation in Cable Television,” (with Matthew Shum), *Journal of Law and Economics*, v50n1 (February 2007), 181-209.

“Uncertainty and Learning in Pharmaceutical Demand,” (with Matthew Shum), *Econometrica*, v73n4 (July 2005), 1137-1174.

“Recent Advances in Structural Econometric Modeling: Dynamics, Product Positioning, and Entry,” (with J.-P. Dube, K. Sudhir, A. Ching, M. Draganska, J. Fox, W. Hartmann, G. Hitsch, B. Viard, M. Villas-Boas, and N. Vilcassim), *Marketing Letters*, v16n2 (July 2005).

“The Impact of the 1992 Cable Act on Household Demand and Welfare,” *RAND Journal of Economics*, v31n3 (Autumn 2000), 422-449.

Articles Under Review

“The Regulation of Public Service Broadcasting: Should there be more advertising on television?,” (with Lachlan Deer, Jeremy Smith, and Paul Sturgeon), working paper, University of Zurich, July 2017, revise and resubmit at *International Journal of Industrial Organization*.

Work In Progress

“One step forward, two steps back: Mergers, Bundling, and Foreclosure in Complementary Markets with Increasing Returns to Scale,” (with Matteo Courthoud), slide deck with preliminary results, University of Zurich, May 2021.

“The BBC and Brexit,” (with Vardges Levonyan), slide deck with preliminary results, University of Zurich, June 2011.

Grants

“Agenda Setting and its Determinants in News Outlets,” Swiss National Science Foundation, 504,688 CHF (€510,000), 2021-2024.

“Media Bias in Public Service Broadcasting,” Swiss National Science Foundation, 505,624 CHF (€510,000), 2018-2020.

“Endogenous Product Characteristics in Empirical Industrial Organization,” Economic and Social Research Council, £140,000 (€220,000), 2010-2012.

“The Empirical Consequences of Advertising Content” (with Jozsef Molnar), Hungarian Competition Commission, 10,000,000 Hungarian Forint (€50,000), 2007-2008

Other Professional Activities

Editing/Refereeing

Associate Editor, *International Journal of Industrial Organization*, October 2005 - present.

Editorial Board, *Information Economics and Policy*, December 2007 - present.

Excellence in Refereeing Award, *American Economic Review*, 2009.

Referee for *Econometrica*, *American Economic Review*, *Review of Economics Studies*, *RAND Journal of Economics*, *Review of Economics and Statistics*, *Quantitative Marketing and Economics*, *National Science Foundation*, *International Journal of Industrial Organization*, *Journal of Industrial Economics*, *Journal of Applied Econometrics*, *Information Economics and Policy*, *Management Science*, *Southern Economic Journal*

Academic Presentations (previous 7 years and planned)

2021 Presentations: Ofcom-sponsored Special Session, RES Annual Conference (Belfast/online, 4/21), Penn (online, 4/21), NYU (online, 4/21)

2019 Presentations: Zurich Faculty Lunch (5/19), ACE (Copenhagen, 11/19)

2016 Presentations: Winter Marketing-Economics Summit (Denver, 1/16), University of Bern (2/16), ESMT (Berlin, 6/16), Pompeu Fabra (Barcelona, 11/16)

2015 Presentations: NYC Media Seminar (2/15), Empirical Models of Differentiated Products (IFS, London, 6/15), Advances in the Economics of Antitrust and Consumer Protection (Paris, 9/15), University of Pennsylvania (Wharton, 9/15), 15th Media Economics Workshop (Cape Town, 11/15), Bocconi (12/15), ECARES (Brussels, 12/15)

2014 Presentations: Winter Marketing-Economics Summit (Wengen, Switzerland, 1/14), Industrieökonomischer Ausschuss (Hamburg, 2/14), Network of Industrial Economists (Manchester, UK, 10/14)

Conference Organization and similar

CEPR Virtual Industrial Organization Seminar ([VIOS](#)), launched June 2020: co-founder
(with Natalia Fabra, Alessandro Iaria, and Guillerme Llobet)

CEPR Applied IO Workshop: Rome (EIEF, 2020, postponed due to Corona), Madrid (UC3M, 2019),
Leuven, Belgium (KU Leuven, 2018), Jerusalem (Hebrew University, 2017), London (IFS, 2016),
Zurich (UZH, 2015)

EARIE 2010-present: Scientific Committee

Economics of Media Markets 2010: Scientific Committee, Triangle Applied

Economics of Media Markets 2010: Scientific Committee, Triangle Applied

Micro Conference 2000: Organizer, Triangle

Applied Micro Conference 1999: Co-organizer