Antitrust Economics Workshop
September 11, 2019
9:10 a.m.–4:25 p.m.

46th Annual
Conference on International Antitrust Law & Policy
September 12–13, 2019
Day 1: 9:15 a.m.–4:40 p.m.
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Fordham Law School
Skadden Conference Center | 150 West 62nd Street
New York City
Fordham Competition Law Institute Antitrust Economics Workshop

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Rima Alaily
Deputy GC of Competition, Microsoft
Rima Alaily leads the Competition Law Group responsible for helping the company comply with the competition laws around the world, close mergers and acquisitions, and respond to investigations. The team engages with regulators, academics, and others to consider the role of competition law in the face of our changing economy and the development of new technology. Rima is a long-standing advocate for civil legal aid and works with local and national organizations to provide access to justice for those in need. Prior to joining Microsoft, Rima was a litigation partner at Heller Ehrman LLP. Rima received her B.A. from Brown University in 1994, and her J.D. from Harvard Law School in 1998.

James Aitken
Partner, Freshfields Bruckhaus Deringer, LLP
James Aitken is a partner in Freshfields’ antitrust, competition and trade group working from the firm’s London and Brussels offices. He has advised clients on behavioural antitrust investigations, and on obtaining merger clearances, before the European Commission, Competition and Markets Authority and other competition authorities in Europe and worldwide. James also regularly advises on contentious antitrust litigation in the European and UK Courts. He has particular expertise in the technology and financial services sectors as well as advising regulated companies in the infrastructure, energy and telecommunications sectors.

Jeffrey Amato
Partner, Winston & Strawn LLP
Jeffrey Amato handles complex multi-forum disputes, principally in the areas of international cartel litigation, class actions, arbitration and government investigations. Jeffrey also has experience in white collar criminal defense, including representing defendants in federal and state courts at the trial, appellate, and post-conviction levels. His experience includes counseling clients with respect to navigating compliance with statutory, regulatory, and ethical obligations relating to government contracts. During his career in private and public practice, Jeffrey has been involved in legal disputes concerning a wide range of issues in federal, state, administrative, and arbitral forums, each contributing to his proficiency in new substantive areas of the law and diverse business sectors.

Prior to joining Winston, Jeffrey worked at another international law firm. Previous to that, he served as law clerk to the Honorable Arthur D. Spatt, U.S. District Judge for the Eastern District of New York. Before his clerkship, Jeffrey was an attorney with the U.S. Department of Homeland Security, where he prosecuted numerous civil enforcement actions against individuals, air carriers, shippers, and other regulated entities. During his tenure at U.S. Department of Homeland Security, he received an interim appointment as Special Assistant to the Chief Counsel of the Transportation Security Administration.

Immediately following his graduation from law school, Jeffrey was an Honors Attorney with the Office of the General Counsel of the U.S. Department of Transportation.

Dr. Pinar Bagci
Principal, The Brattle Group
Dr. Pinar Bagci has 20 years of experience advising on the economics of competition, regulation and damages assessment. She has provided economic analysis for clients throughout in-depth competition and regulatory investigations and in commercial litigation and international arbitrations. Dr. Bagci has advised Europe’s leading financial institutions and energy, mining, telecommunications and electronics companies throughout in-depth merger, cartel, dominance, State Aid and market investigations by the European Commission and national regulatory authorities. She has submitted expert economic analysis and testimony in international arbitration and litigation proceedings brought before European courts and the European Court of Justice.

In litigation matters, Dr. Bagci has prepared expert economist testimony for national courts and international arbitration tribunals in relation to liability and the estimation of damages in the financial, energy, consumer electronics, and
mining sectors. She is currently advising a leading investment bank throughout an EC investigation of alleged collusion to manipulate forex benchmarks. She recently provided economic analysis on competition issues in one of the largest damages claims brought before an international tribunal concerning vertical restraints and abuse of dominance in gas supply and transit contracts.

**David Bamberger**  
**Partner, DLA Piper**  
David Bamberger has been litigating for more than 35 years in federal and state courts around the country, as well as before arbitration panels. He devotes a substantial portion of his practice to litigating complex antitrust and trade regulation matters, including class action cases. David has tried scores of cases, many of them jury trials, and has argued appeals in many appellate courts, including the Supreme Court of the United States. In addition to maintaining an active litigation practice, David also regularly counsels clients in a variety of industries on antitrust and trade regulation matters.

The respected research publication *Legal 500 United States* recommended David in its 2014 edition and called him "practical, timely and accurate." Its 2012 edition called him "excellent," and its 2011 edition described him as "vastly experienced" and noted that a client commented that he is "one of the most knowledgeable attorneys in the country; very accessible and mindful never to churn a file." In 2018, he was named a BTI Client Service All-Star by BTI Consulting, which noted that he was selected for his "exceptional legal expertise with practical advice, business savvy and innovative, effective solutions." Only 326 lawyers in the US received this honor in 2018. David is also listed in *The Best Lawyers in America 2018* and is named a 2018 Washington, DC Super Lawyer in the area of Antitrust Litigation, and he has been named among the "Noted Practitioners" in *Chambers USA* in the area of litigation for Washington, DC.

**Oliver Bethell**  
**Director, EMEA Competition, Google**  
Mr. Oliver Bethell is currently leading Google's EMEA competition team at Google's London headquarters. His role involves leadership of a large cross-functional (Policy, Legal, Economists, Product, Eng, Comms) and international in-house and external teams. He is responsible for strategic decision-making and negotiations, working with General Counsel and other SVP level executives, and CEO. Prior to this he worked in private practice at Cleary Gottlieb Steen & Hamilton in Brussels before moving to Google’s in-house team in London in 2008. His experience to-date includes leadership of large cross-functional teams in a range of high-profile international investigations and high-level advocacy and negotiation with regulatory agencies around the world. He is a 14 year qualified barrister with a range of European and US advisory and management experience. Oliver is a graduate of Oxford University and BPP Law School and a member of the Bar of England and Wales.

**Michael S. Burkhardt**  
**Partner, Morgan Lewis**  
Michael S. Burkhardt represents employers in a wide range of labor and employment disputes, including employment discrimination class actions, systemic discrimination investigations, and multiplaintiff litigation. He handles FLSA and state wage and hour actions, as well single-plaintiff disability, sex, age, and race discrimination claims. He also represents clients in whistleblower and wrongful discharge claims. Michael has experience in all areas of employment litigation and counseling, particularly EEOC systemic investigations, class action litigation, noncompetition litigation; and compensation, promotion, and hiring analyses.

**Dr. Alexandre Carbonnel**  
**Senior Consultant, NERA Economic Consulting (Paris)**  
Dr. Alexandre Carbonnel co-leads the Antitrust and Competition team in Paris. Dr. Carbonnel has years of experience analyzing economic issues related to competition and regulatory investigations by the European Commission and national competition authorities in France and the UK. He also served as an expert consultant in major commercial litigation.
Dr. Carbonnel’s work spans a wide range of areas in competition law, including cartels and exchanges of information, abuse of dominance, and merger control. He is also an expert in the evaluation of damage claims before courts. He has significant experience in key industries, including telecommunications, pharmaceuticals, e-commerce, agro-alimentary products, and logistics. 

Dr. Carbonnel has contributed to economic reports advising national authorities on competition issues and counseling the European Commission on intellectual property rights. He also published on the economic assessment of mergers in the European Competition Law Review and is a guest lecturer in competition economics at HEC Paris and at the European University Institute in Florence.

Prior to joining NERA, Dr. Carbonnel worked as a competition economist in an economic consultancy in Brussels and Paris. He started his career at the Office of Fair Trading in London, where he worked on a high-profile case involving alleged anti-competitive practices in the pharmaceutical industry and also on the assessment of Phase 1 mergers.

He holds a PhD in economics and an MA in mathematical economics and econometrics from the Toulouse School of Economics, and a BA in economics from the University of Lausanne (HEC Lausanne). During his doctoral studies, Dr. Carbonnel was a university lecturer in economics at the Toulouse School of Economics and in the Law School of Toulouse I University.

Dr. Anca Cojoc
Senior Consultant, NERA Economic Consulting (London)

Dr. Cojoc is a Senior Consultant in NERA’s Antitrust and Competition Practices, based in London. She specialises in competition economics, litigation, damages, and regulatory matters.

Dr. Cojoc has almost 10 years of experience as an economist in regulatory agencies and consultancies. She has led client engagements in commercial litigations, market investigations, and mergers across a wide range of sectors, including media and communications, telecommunications, energy, water, financial services, health care, and transportation. She has considerable expertise in implementing applied econometric and statistical models to address competition, regulatory, and policy issues. 

Dr. Cojoc’s recent work includes advising clients in commercial litigations, market investigations, and mergers; economic analysis to assess liability and estimate potential damages in pending litigation; managing the economic and econometric analysis for a gas and electricity retailer; and research on Big Data in the context of competition policy frameworks.

Prior to joining NERA, Dr. Cojoc provided economic advice and analysis in various commercial litigation cases and mergers in the London office of an economic consultancy. Before that, she was an Assistant Manager in the Competition Economics Team of a “big four” accountancy and a Research Fellow with the American Institute for Economic Research where she conducted research on various public policies. She also worked for the UK Competition Commission (now the CMA) advising on various merger cases and market investigations.

Dr. David Colino
Principal Consultant, Edgeworth Economics

Dr. David Colino is an expert in applied microeconomics and finance who specializes in the application of statistical and econometric tools to litigation and business consulting matters. Dr. Colino’s work focuses on the economics of antitrust and intellectual property, for which he provides rigorous economic and quantitative analysis to address issues of class certification, liability, and damages. He has worked on US and Canadian cases in industries such as electronic components and financial derivatives, and has analyzed economic issues related to antitrust class certification in monopolization and price fixing claims.

Dr. Colino’s academic research has focused on the economics of innovation and intellectual property. At the Massachusetts Institute of Technology, he instructed courses in statistics, microeconomics, and industrial organization, as
well as advanced graduate classes focusing on core issues in antitrust and regulation. Dr. Colino is an articulate and effective communicator who is fluent in three languages. He was awarded numerous prizes and fellowships during his academic studies. Dr. Colino earned his PhD in economics from the Massachusetts Institute of Technology; his Master in economics and finance from CEMFI, Spain; and he is an Ingénieur Polytechnicien from the Ecole Polytechnique, France.

Dr. Andrea Coscelli
Chief Executive of the Competition and Markets Authority (UK)
Andrea Coscelli is the Chief Executive of the Competition and Markets Authority (CMA), which was established on 1 October 2013 and assumed its full functions and powers on 1 April 2014. He is responsible for establishing and managing the new organization and working with the chairman, the board and the executive team. His previous roles include Acting Chief Executive at the Competition and Markets Authority Executive Director, Markets and Mergers at the Competition and Markets Authority, Director of Economic Analysis, Competition Group, Ofcom, Vice-President (Partner), European Competition Practice at Charles River Associates (CRA) International, Associate Director, Lexecon Ltd, and Co-founder of the Association of Competition Economics (ACE). He holds a PhD in Economics from Stanford University.

Susan Creighton
Partner, Wilson Sonsini Goodrich & Rosati
Susan Creighton is co-chair of the firm's antitrust practice. Susan's practice focuses on merger review, government conduct investigations, and antitrust litigation and counseling. Representative matters include serving as lead outside counsel for Google in the Federal Trade Commission's search investigation of the company, and representing Netflix in connection with the Justice Department's investigation of the proposed Comcast/TWC merger.

Susan was named "Lawyer of the Year" by Global Competition Review in 2013, and was one of The National Law Journal's "Outstanding Women Lawyers" in 2015. She has testified before the Antitrust Modernization Commission, the Federal Trade Commission, and the Senate on antitrust-related issues. She also has written a number of widely cited articles, including on issues related to mergers, intellectual property, and unilateral conduct.

From 2003 through the end of 2005, Susan served at the Federal Trade Commission as Director of the Bureau of Competition. From 2001 to 2003, she served as Deputy Director of the Bureau under then-Director Joe Simmons. Prior to joining the FTC, Susan wrote the white paper for Netscape that is credited with triggering the Department of Justice's investigation and eventual suit against Microsoft for illegal monopolization.

Susan has served in a variety of leadership roles within the firm, including on the board of directors. Prior to joining the firm, she was a law clerk to U.S. Supreme Court Justice Sandra Day O'Connor. She also served as a law clerk to Federal District Judge Pamela Ann Rymer.”

Kris Dekeyser
Director of Policy and Strategy Directorate, European Commission
Kris is Director of the Policy and Strategy Directorate at the European Commission’s Directorate General for Competition. Before taking up his present position, Kris filled numerous management positions across DG Competition – he was in charge of antitrust and merger policy and case support; took up the duties of the European Commission's Cartel Settlement Officer at DG Competition's Cartels Directorate; and he was also Head of the Unit in charge of the European Competition Network and the Private Enforcement initiative.

Kris graduated in both law and political sciences and he is a guest Professor at the Hogeschool-Universiteit Brussel. He is the author of a variety of publications in English and French in the field of competition law. He also regularly delivers lectures at seminars and conferences around the world on both general and specialised areas of
Competition law, variously organised by Universities, Bar Associations, business forums, government organisations, competition enforcement agencies, etc.

**Makan Delrahim**  
Assistant Attorney General, Antitrust Division, The United States Department of Justice

Makan Delrahim was confirmed on September 27, 2017, as Assistant Attorney General for the Antitrust Division. Mr. Delrahim previously served as Deputy Assistant to the President and Deputy White House Counsel. Mr. Delrahim’s rich antitrust background covers the full range of industries, issues, and institutions touched upon by the work of the Antitrust Division. He is a former partner in the Los Angeles office of a national law firm. He served in the Antitrust Division from 2003 to 2005 as a Deputy Assistant Attorney General, overseeing the Appellate, Foreign Commerce, and Legal Policy sections. During that time, he played an integral role in building the Antitrust Division’s engagement with its international counterparts and was involved in civil and criminal matters. He has served on the Attorney General’s Task Force on Intellectual Property and as Chairman of the Merger Working Group of the International Competition Network. Mr. Delrahim was also a Commissioner on the Antitrust Modernization Commission from 2004 to 2007. Earlier in his career, Mr. Delrahim served as antitrust counsel, and later as the Staff Director and Chief Counsel of the U.S. Senate Judiciary Committee.

**Dr. Stephanie Demperio**  
Senior Consultant (Washington, DC), NERA Economic Consulting

Dr. Demperio conducts economic research and analysis in the areas of antitrust, intellectual property economics, commercial damages, public health and policy, and business valuation. She has supported clients in matters brought before courts and government authorities in the US, Canada, Australia, and the UK.

In antitrust matters, Dr. Demperio has evaluated the competitive effects of mergers and acquisitions, and analyzed antitrust claims and damages in cases involving alleged monopolization and predatory pricing practices. In addition, she has analyzed antitrust impact related to class certification. Her project experience in antitrust matters spans a wide variety of industries including agricultural commodities, auto parts, paper, telecommunications, food products, and pharmaceuticals.

In intellectual property, Dr. Demperio has deep expertise in calculating lost profits and reasonable royalty damages in cases involving patent, copyright, trademark, and trade secret infringement, and has done so in a wide range of industries, including pharmaceuticals, chemicals, and apparel.

She earned her MA and PhD in economics from the University of Virginia, and her BA in mathematical economics, cum laude and with honors, from Colgate University.

**Isabelle de Silva**  
President, Autorité de la Concurrence

Isabelle de Silva was appointed president of the Autorité de la concurrence on October 14, 2016 by decree of the President of the French Republic.

Isabelle de Silva is a member of the Conseil d’Etat, the French supreme administrative court, which she joined in 1994 after graduating from Ecole des Hautes Etudes Commerciales (HEC-1990), the Community of European Management Schools (CEMS-1990), the Sorbonne University in philosophy (Paris I-1989) and Ecole Nationale d'Administration (ENA-1994), the French national school for civil service.

After holding different positions as auditeur (1994) and then maître des requêtes (1998) at the Conseil d’Etat, she became commissaire du gouvernement at the Second and then Sixth Chamber of the Conseil d'Etat (2000-2009), and was later promoted to the rank of conseiller d'Etat (2009). She has been appointed as president of the Sixth Chamber of the Conseil d’Etat in 2013, in charge of cases in the field of justice, finance, environment and regulated professions.
She was an adviser to the Minister of Culture and Communications, in charge of the press and the radio (1999-2000), director of legal affairs of the Ministry of Ecology, Sustainable Development, Transport and Housing (2009-2011), and became a member of the sector regulator for press distribution in 2012. She had been a member of the board of the Autorité de la concurrence since 2014.

Isabelle de Silva is an Officer of the French Légion d'honneur, ordre national du Mérite and ordre des Arts et des Lettres.

Alexandre Barreto de Souza
President, CADE
Alexandre Barreto de Souza is the President of CADE. He holds a Master’s degree in Management, a specialization in Public Management and has a Bachelor’s degree in Management from the University of Brasilia (UNB). He is a Federal Auditor of External Control of the Federal Court of Accounts (TCU as per its acronym in Portuguese). From 2000 to 2005, Mr. Barreto worked at the Federal Senate as a Technical Advisor assigned by TCU. At TCU, between 2010 and 2013, he was the Director responsible for the monitoring of state-owned financial institutions. Between 2013 and 2014, he was the Director of the areas responsible for the control over public bids and contracts for all public administration. His work largely involved rationalization of the procedures, fraud prevention and fight against bid rigging. Furthermore, he worked as Chief of Staff of the Minister of TCU.

Daniel Francis
Associate Director for Digital markets, Federal Trade Commission
Daniel Francis joined the FTC in 2018 as Senior Counsel to the Director of the Bureau of Competition. Prior to joining the Commission, Daniel was a Climenko Fellow and Lecturer on Law at Harvard Law School. He is a candidate for the JSD degree at New York University School of Law. Daniel was previously in private practice, where he spent a number of years as a full-time antitrust attorney in Washington, DC, where he focused on the oil and gas, aerospace, defense, and entertainment sectors. Daniel is admitted to the practice of law in New York and the District of Columbia.

Jennifer Giordano
Partner, Latham and Watkins
Jennifer Giordano is a partner in the Litigation & Trial Department and a member of the Firm’s Global Antitrust & Competition Practice.

Ms. Giordano has achieved significant victories for her clients at all stages of litigation on a wide variety of antitrust claims, including monopoly, monopsony, price fixing, price discrimination, tying, and state law unfair competition claims.

Cal Goldman
Partner, Goodmans LLP
Cal Goldman is Chair of Goodmans Competition, Antitrust and Foreign Investment group. His practice focuses on all aspects of Canadian competition law, with a particular emphasis on Canadian and international matters before the Competition Bureau as well as foreign investment reviews before Investment Canada. Over the years and in recent years, Cal has acted as counsel in a number of leading competition law and foreign investment review cases in Canada.

Cal is a former Director (since renamed “Commissioner”) of the Canadian Competition Bureau and a former Vice Chair of the Organization for Economic Co-operation and Development (OECD) Competition Committee. Cal was the first appointee to the Soloway Chair of Business and Trade Law, University of Ottawa.

Cal is co-chair of the International Chamber of Commerce Task Force on the International Competition Network. He is also on the Executive of the Business at OECD (BIAC) Competition Committee. He is co-chair of the Future of Competition Law Standards Task
Dr. Laila Haider  
**Partner, Edgeworth Economics**

Dr. Laila Haider is an expert witness who specializes in economic research and analysis in the areas of antitrust, false advertising, labor and employment, and commercial damages. She frequently testifies in depositions and arbitrations and submits expert reports. Dr. Haider has particular expertise in the application of microeconomics, statistics, and econometrics to litigation issues.  

In antitrust, Dr. Haider regularly provides economic testimony and consulting in class actions involving allegations of price fixing, bid rigging, monopolization, and exclusive dealing. She has significant expertise in the economics of class certification, where her focus has been on both direct purchaser and indirect purchaser litigation. Dr. Haider also has extensive experience evaluating damages approaches and critiquing opposing damages models in cases involving antitrust and consumer protection claims. She has also analyzed the competitive effects of proposed mergers and acquisitions. Dr. Haider has provided her expertise in a wide variety of industries, such as the manufacturing, automotive parts, electronics, health care, pharmaceutical, chemical, agricultural products, consumer products, and airline industries.

In labor and employment, Dr. Haider provides economic testimony and consulting in a range of areas including the economics of discrimination, wage and hour claims, labor class actions, and wrongful termination. She also has expertise in evaluating claims of economic loss in these matters.

Dr. Haider is Co-Chair of the Economics Committee of the ABA Section of Antitrust Law ("ABA-SAL"). She also recently served as Associate Editor of *Antitrust Magazine* and has written papers and given numerous presentations on economic issues in litigation. Her work has been published in peer-reviewed journals such as the *Journal of the European Economic Association*, *Antitrust Magazine*, and *The Antitrust Practitioner*. She has also co-authored a chapter in the ABA-SAL volume, *Proving Antitrust Damages*.

Dr. Haider received her PhD in economics, with distinction, from Columbia University and her BA in economics, *summa cum laude*, from Gettysburg College.

Michael D. Hausfeld  
**Chairmain, Hausfeld LLP**

Michael D. Hausfeld, widely recognized for his leadership on competition matters and his groundbreaking results in human rights law, is the Chairman of Hausfeld LLP.

His career has included some of the largest and most successful class actions in the fields of human rights, discrimination and antitrust law. He has an abiding interest in social reform cases and was among the first lawyers in the U.S. to assert that sexual harassment was a form of discrimination prohibited by Title VII; he successfully tried the first case establishing that principle. He represented Native Alaskans whose lives were affected by the 1989 Exxon Valdez oil spill. Later, he negotiated a then-historic $176 million settlement from Texaco, Inc. in a racial-bias discrimination case. In the landmark O'Bannon v. NCAA litigation, Michael represented a class of current and former Division I men's basketball and FBS football players against the NCAA and its member institutions, based on rules foreclosing athletes from receiving compensation for the use of their names, images, and likenesses. At the conclusion of a three-week bench trial, the Court determined that the NCAA had violated the antitrust laws and issued a permanent injunction as requested by the plaintiffs. Immediately
following the decision, Michael was named AmLaw Litigation Daily’s “Litigator of the Week,” citing the “consensus among courtroom observers [was] that Michael Hausfeld…got the best of a parade of NCAA witnesses at trial.” Law360 dubbed the trial team led by Michael as “Legal Lions,” citing the firm’s historic victory over the NCAA.

In Friedman v. Union Bank of Switzerland, Michael represented a class of Holocaust victims whose assets were wrongfully retained by private Swiss banks during and after World War II. The case raised novel issues of international banking law and international human rights law. In a separate case, he also successfully represented the Republic of Poland, the Czech Republic, the Republic of Belarus, the Republic of Ukraine and the Russian Federation on issues of slave and forced labor for both Jewish and non-Jewish victims of Nazi persecution. He represented Khulumani and other NGOs in a litigation involving the abuses under apartheid law in South Africa.

Scott Hemphill
Moses H. Grossman Professor of Law, NYU Law

Scott Hemphill teaches and writes about antitrust, intellectual property, and regulation of industry. His research focuses on the law and economics of competition and innovation, and his scholarship ranges broadly, from drug patents to net neutrality to fashion and intellectual property. Hemphill’s recent work examines the antitrust problem of parallel exclusion in concentrated industries and anticompetitive settlements of patent litigation by drug makers. His scholarship has been cited by the US Supreme Court and the California Supreme Court, among others, and has formed the basis for congressional testimony on matters of regulatory policy. Hemphill’s writing has appeared in law reviews, peer-reviewed journals, and the popular press, including the Yale Law Journal, Science, and the Wall Street Journal. He joined NYU from Columbia Law School, where he was a professor of law. Hemphill has also served as antitrust bureau chief for the New York Attorney General and clerked for Judge Richard Posner of the US Court of Appeals for the Seventh Circuit and Justice Antonin Scalia of the Supreme Court. He holds a JD and PhD in economics from Stanford, an AB from Harvard, and an MSc in economics from the London School of Economics, where he studied as a Fulbright Scholar.

Dr. Jason Hong
Senior Consultant, NERA Economic Consulting (New York)

A Senior Consultant in NERA’s Antitrust Practice, Dr. Hong joins NERA after serving for three years as an economist in the Antitrust Division of the US Department of Justice. At the Justice Department, he analyzed the competitive effects of proposed mergers and other alleged anticompetitive behavior. Dr. Hong also performed econometric analyses to estimate market demand, executed merger simulations, and evaluated industry claims of increased market efficiency and other pro-competitive justifications of proposed mergers. Dr. Hong’s experience spans a number of industries, including paper products, retail food, consumer appliances, online advertising, and agricultural equipment.

Jeff Jaeckel
Co-chair, Global Antitrust Law Practice Group, Morrison & Foerster LLP

Jeff Jaeckel is a co-chair of Morrison & Foerster’s Global Antitrust Law Practice Group and a member of the board of directors of Morrison & Foerster LLP. Mr. Jaeckel is an experienced antitrust litigator and counselor. He represents foreign and domestic corporations in connection with all manner of antitrust and competition law matters, from M&A strategy and investigations to cartel investigations to civil litigation.

Mr. Jaeckel has notable experience representing public and private corporations in connection with their most significant and complicated antitrust litigation in federal and state courts. He regularly represents clients in all antitrust aspects of complicated transactional matters, including strategy and structuring of transactions to avoid antitrust risk and achieve strategic business objectives, and U.S. and multinational
merger notification and review. Mr. Jaeckel also represents domestic and international companies in connection with government investigations of conduct, including civil investigations relating to monopolization or criminal investigations of alleged price-fixing. Mr. Jaeckel also assists clients in the protection of their intellectual property and counsels clients on the antitrust ramifications of commercial agreements to capitalize on the value of intellectual property.

Mr. Jaeckel represents clients across a range of industries, including pharmaceuticals and medical devices, semiconductors, software, Internet services, transportation, consumer products, telecommunications, and media and entertainment.

Frédéric Jenny
Chair, OECD Competition Committee
Frédéric Jenny holds a Ph.D in Economics from Harvard University (1975), a Doctorate in Economics from the University of Paris (1977) and an MBA degree from ESSEC Business School (1966) He is professor of Economics at ESSEC Business School in Paris. He is Chairman of the OECD Competition Committee (since 1994), and Co-Director of the European Center for Law and Economics of ESSEC (since 2010). He was previously Non-Executive Director of the Office of Fair Trading in the United Kingdom (2007-2014 ), Judge on the French Supreme Court (Cour de cassation, Economic Commercial and Financial Chamber) from 2004 to August 2012, Vice Chair of the French Competition Authority (1993-2004) and President of the WTO Working Group on Trade and Competition (1994-2003) He was visiting professor at Northwestern University Department of Economics in the United States (1978), Keio University Department of economics in Japan (1984), University of Capetown Business School in South Africa (1991), Haifa University School of Law in Israel (2012). He was Visiting Professor at University College London Law School (2005-2010), Global Professor of Antitrust in the New York University School of Law’s Hauser Global Law School (2014 and 2017) and Senior Fellow in the Online Global Competition and Consumer Law Master’s Program, University of Melbourne (Australia) (1016-2018). Frederic Jenny has written extensively about trade, competition and economic development and has served as an adviser to many developing countries on competition and trade issues.

Dr. John H. Johnson IV
CEO, Edgeworth Economics
Dr. Johnson is the CEO of Edgeworth Economics. He has helped build Edgeworth into one of the most prominent economic consulting firms in the world by assembling a group of the brightest, rigorously trained economists. In his consulting practice, Dr. Johnson uses econometrics and economic theory to develop careful analyses in a wide range of antitrust, labor and employment, class action, and damages-related matters. Dr. Johnson frequently writes and presents on economic topics related to litigation, including several highly-cited papers on rigorous analysis in antitrust class actions. A teacher at heart, Dr. Johnson is known for his ability to explain technical concepts in a simple, straightforward manner.

Dr. Johnson provides consulting and testimony that spans all aspects of criminal and civil antitrust litigation, including data discovery and extraction, class certification, liability, and damages.

Dr. Johnson has served as an antitrust expert witness and consultant in the United States, Canada, Europe, and Asia opining on class certification, market definition, anticompetitive effects, liability issues, causation, and antitrust damages, in addition to consulting on antitrust and labor matters on behalf of the NFL Players Association. He is a past Associate Editor of the Antitrust Law Journal.

In the area of labor and employment, Dr. Johnson applies his econometric training in age, race, gender, and pregnancy discrimination litigations, wrongful termination cases, wage and hour disputes, and other labor issues. His work in these areas includes economic issues related to liability in addition to the quantification of damages. Dr. Johnson’s
publications focus extensively on issues related to the Fair Labor Standards Act and the intersection of work and family relationships.

Dr. Johnson’s class action practice focuses on class certification issues in antitrust, data privacy, false advertising, and labor class actions. He constructs and analyzes complex databases, employing sophisticated econometric techniques to determine whether liability and/or damages can be certified on a common, class-wide basis or whether individual inquiry is appropriate. Dr. Johnson has authored several academic papers on antitrust and labor class actions, and coauthored an amicus brief to the Supreme Court in *Comcast v. Behrend*.

In the area of data privacy and analytics, Dr. Johnson works with companies and outside counsel to provide litigation and consulting support related to the appropriate use and interpretation of complex datasets. As part of Edgeworth’s data analytics and privacy practice, Dr. Johnson helps clients assess potential scope of a data breach, assess theories of injury and harm, and provide assistance with FTC investigations and class actions. On the analytics side, Dr. Johnson provides consulting to help companies translate their internal data into actionable and understandable information in a variety of contexts, such as human resources and business intelligence. Dr. Johnson is a member of the International Association of Privacy Professionals and is a Certified Information Privacy Professional - US Private Sector (CIPP-US).

In addition to his roles at Edgeworth Economics, Dr. Johnson is also a member of the Boards of Directors of the National Appleseed Pro Bono Network and the National Archives Foundation.

Dr. Johnson received his PhD in economics from the Massachusetts Institute of Technology and his BA in economics, with highest distinction, from the University of Rochester.

Karen Kazmerzak  
**Partner, Sidley Austin LLP**
Karen Kazmerzak, a former Federal Trade Commission lawyer, has a broad practice counseling clients regarding antitrust matters involved in mergers and acquisitions and concerning antitrust issues in licensing, distribution, pricing, and competitor collaborations. She represents clients seeking merger clearance from the FTC and the U.S. Department of Justice, and clients that are third-party market participants subpoenaed by the government or that oppose an acquisition. Karen also works closely with co-counsel and economists around the world to develop the best global strategy for clients’ advocacy across several jurisdictions, including in the United States. Hailed as “very knowledgeable and easy to talk to,” her clients appreciate her strong legal acumen combined with her ability to address the business issues in an array of industries. In 2018, *Chambers* recognized Karen as an “Up and Coming” lawyer for her growing presence in the legal industry and driving practice focused on merger work and business compliance counseling.

Mike Kheyfets  
**Partner, Edgeworth Economics**
Mr. Kheyfets is a professional economist who provides his clients with economic research and rigorous data analysis in litigation, regulatory, and business analytics matters. Across his practice, Mr. Kheyfets applies his technical training to develop large datasets, employ sophisticated statistical modeling, and analyze complex issues. He is highly skilled in communicating his findings clearly and concisely to a range of audiences that include business people, legal counsel, and judges and juries.

In the area of antitrust and competition, Mr. Kheyfets advises clients on a broad range of matters, including allegations of price-fixing, monopolization, market allocation, bid rigging, refusals to deal, and tying and bundling. He specializes in all phases of these matters, from managing the data discovery process to class certification, liability, and damages. Mr. Kheyfets also assists his clients with competitive analyses of mergers and acquisitions.

In his privacy and data security work, Mr. Kheyfets applies rigorous empirical analysis to provide clients and outside counsel with answers to complex questions surrounding the scope
of—and potential financial exposure resulting from—a data breach. Mr. Kheyfets holds a CIPP-US (Certified Information Privacy Professional, US Private Sector) certification from the International Association of Privacy Professionals.

Outside of litigation, Mr. Kheyfets serves in an advisory role to his clients, consulting on data-driven approaches to strategic decision-making. He has extensive experience analyzing large datasets as well as developing and validating a variety of models.

Mr. Kheyfets has served in several leadership roles within the American Bar Association’s Antitrust Section, where he educated members of the legal community about issues in data analysis, economics, and statistics.

Mr. Kheyfets received his BA, magna cum laude and Phi Beta Kappa honors, and his MA in economics from Boston University.

William Kovacic
Global Competition Professor of Law and Policy; Professor of Law; Director, Competition Law Center, The George Washington University Law School

Before joining the law school in 1999, William E. Kovacic was the George Mason University Foundation Professor at the George Mason University School of Law. From January 2006 to October 2011, he was a member of the Federal Trade Commission and chaired the agency from March 2008 to March 2009. He was the FTC’s General Counsel from June 2001 to December 2004. In 2011 he received the FTC’s Miles W. Kirkpatrick Award for Lifetime Achievement.

Since August 2013, Professor Kovacic has served as a Non-Executive Director with the United Kingdom’s Competition and Markets Authority. From January 2009 to September 2011, he was Vice-Chair for Outreach for the International Competition Network. He has advised many countries and international organizations on antitrust, consumer protection, government contracts, and the design of regulatory institutions.

At GW, Professor Kovacic has taught antitrust, contracts, and government contracts. He is co-editor (with Ariel Ezrachi) of the Journal of Antitrust Enforcement. His publications since returning to GW in 2011 are many.

Kai-Uwe Kühn
Academic Advisor, University of East Anglia

Kai-Uwe Kühn is a Professor of Economics and Deputy Director of the Centre for Competition Policy at the University of East Anglia. He holds visiting appointments at the Düsseldorf Institute for Competition Economics (DICE) and Georgetown University. From May 2011 to August 2013, Prof. Kühn was Chief Economist at DG Competition, European Commission. He has advised competition authorities and private firms on competition policy as well as merger, state aid, and antitrust cases for 25 years.

His consultancy work has covered the whole range of competition matters from policy issues (e.g. the Commission Notice on Market Definition (1997), the 1997 Green paper on Vertical Restraints, the 2010 Vertical Guidelines) to mergers (e.g. GE/Honeywell merger (2001) including the court appeal), and antitrust matters (e.g. the Microsoft I on server interoperability). Most recently he acted as an expert in a large number of cartel damages cases, advised on complex antitrust cases (e.g. hotel bookings and another MFN case, radius clauses, and novel forms of exploitative abuses such as privacy and other contractual terms), as well as large number of merger cases in different jurisdictions. During his time as Chief Economist, he advised the Competition Commissioner on all competition cases and policy initiatives (in particular State Aid Modernization) and led the economic analysis on many large mergers (e.g. Deutsche Börse/NYSE, UPS/TNT, Univeral/EMI, H3G/Orange Austria, Western Digital/Hitachi, Outokumpu/Inoxum) and antitrust cases (e.g. Google, e-books, and the Standard Essential Patent cases), often in close cooperation with counterparts at the US agencies.

Prof. Kühn spent most of his academic career as a tenured Associate Professor of Economics at the University of Michigan. His research includes theoretical, experimental, and empirical industrial organization covering a wide range of
topics including durable goods, vertical integration, vertical restraints, market foreclosure, the impact of credit constraints on market behaviour, as well as collusion and the coordinated effects of mergers. It has been published in leading journals like the Journal of Political Economy, the Rand Journal of Economics, the American Economic Journal: Microeconomics, and the Journal of the European Economic Association. He has been the co-editor of the Journal of Industrial Economics.

Karen Hoffman Lent
Partner, Skadden, Arps, Slate, Meagher & Flom LLP

In the antitrust litigation area, Ms. Lent has handled litigations involving price fixing, group boycotts, monopolization, other restraints of trade and class actions. She is representing Citibank in class actions alleging price fixing with respect to U.S. denominated supranational, sub-sovereign and agency bonds; price fixing with respect to VIX products; and a price fixing and group boycott matter regarding U.S. Treasuries. She also is representing Actavis plc in class actions alleging anticompetitive reverse payment settlements regarding branded drugs Lidoderm and Actos; The Vitol Group in class actions alleging price fixing and market manipulation of North Brent Sea Crude Oil; a company in connection with an investigation into “no-poach” agreements; and five New York law schools in a case alleging they and Barbri engaged in a group boycott of a competing bar review course. Other representations include, among others, Anheuser-Busch InBev in connection with an antitrust challenge to its acquisition of Modelo; Pfizer Inc. in a class action alleging monopolization with respect to the drug Neurontin; Ainsworth Lumber Company in an antitrust class action alleging price fixing in the Oriented Strand Board industry; New York-Presbyterian Hospital in a putative antitrust class action brought by resident physicians; International Paper Company in an antitrust class action alleging price fixing; and IASIS Healthcare in an antitrust action challenging a series of exclusive contracts.

Ms. Lent has extensive experience counseling professional sports leagues and teams on a variety of antitrust and sports law matters. She is representing the National Collegiate Athletic Association (NCAA) in litigation brought by student-athletes challenging its eligibility rules; the National Football League (NFL) in litigation brought by photographers alleging violations of intellectual property and antitrust laws; the NFL in a class action brought by retired players alleging negligence in administering prescription painkillers; and the NCAA, National Basketball Association (NBA), NFL, National Hockey League (NHL) and the Office of the Commissioner of Baseball in their suit against the state of New Jersey to prevent the authorization and licensing of gambling on the sports leagues’ athletic events. Ms. Lent also represented the NBA in connection with the league’s imposition of discipline upon Los Angeles Clippers owner Donald Sterling; and the NBA and four of its teams in a litigation brought by the Spirits of St. Louis regarding the Spirits’ right to receive a portion of the teams’ television revenues.

She also advised the NBA and its member teams in connection with its most recent labor dispute and lockout and has successfully arbitrated several disputes involving disability insurance coverage for NBA players. Ms. Lent represented the NHL in connection with the Phoenix Coyotes’ attempt to relocate the team, out of bankruptcy, over the league’s objection. She also has provided advice on various issues to Madison Square Garden, the PGA Tour and Collegiate Licensing Corporation.

In the area of general antitrust counseling, Ms. Lent advises clients on compliance with basic antitrust statutes, including issues relating to competitor collaborations, unilateral conduct and distribution. She also presents antitrust compliance programs.

Ms. Lent actively works on pro bono matters, and received the Legal Aid Society Pro Bono Publico Award in 2009 and 2011 for her successful representation of a disabled senior
citizen whose landlord illegally overcharged her monthly rent for several years.

**Gail Levin**  
**Deputy Director, Bureau of Competition, Federal Trade Commission**  
Gail Levine is a Deputy Director for the Bureau of Competition at the Federal Trade Commission. She oversees a wide variety of mergers, conduct investigations, and antitrust litigation, particularly in health care and high tech. Gail joined the FTC in October 2018.

Gail joined Uber in 2016 as the Head of U.S. Regulatory Affairs, overseeing advocacy nationwide on a wide range of regulatory issues. She later served as Director of U.S. Competition Law at Uber, overseeing antitrust litigation, deals, competition advocacy and counseling nationwide. Before joining Uber, Gail was Vice President and Associate General Counsel at Verizon Communications Inc., where she shaped the company’s patent policy program, led the patent prosecution team, directed the company’s Federal Trade Commission initiatives, and handled antitrust matters.

Before joining Verizon, Gail was an attorney advisor to the Chairman of the Federal Trade Commission, advising on antitrust and intellectual property issues. Before joining the Chairman’s office, Gail was the FTC’s Deputy Assistant General Counsel. She was a significant contributor to the FTC’s report on intellectual property and innovation, and she co-authored many other FTC reports on antitrust and high-tech issues. Before joining the FTC, Gail was a trial lawyer in the Civil Division of the U.S. Department of Justice.

Gail has served on the Council of the Antitrust Section of the American Bar Association, the ABA Presidential Transition Task Force, and the ABA Presidential Task Force on Pleading Standards.

She clerked for Judge Royce Lamberth of the U.S. District Court for the District of Columbia and Judge Patrick Higginbotham of the U.S. Court of Appeals for the Fifth Circuit. She graduated magna cum laude from Harvard Law School, where she was an editor of the Harvard Law Review.

**Carrie C. Mahan**  
**Partner, Weil, Gotshal & Manges LLP**  
Carrie is a partner in Weil’s Washington DC office, where she has a diverse practice advising clients on antitrust and consumer protection issues in government investigations and private litigation, as well as mergers, acquisitions, and joint ventures.

Ms. Mahan has extensive experience representing clients in all major antitrust venues, including both state and federal courts and federal, state and international competition and consumer protection enforcement agencies. Her ability to develop unique arguments under complex antitrust theories has led her to play a leading role in the defense and overall strategy for many key clients, including large joint defense groups. She has secured victories for clients in major nationwide antitrust class actions at critical stages, including dismissal without discovery at Rule 12, defeating class certification, and prevailing at summary judgment. Most recently she was appointed as liaison counsel for nineteen defendants in the federal antitrust class actions and direct action complaints being litigated in *In re Broiler Chicken Antitrust Litigation*.

Ms. Mahan has worked closely with clients to secure approvals of proposed mergers, acquisitions and joint ventures from the Department of Justice and the Federal Trade Commission, as well as favorably resolving a number of non-public investigations by the Federal Trade Commission into trade association and joint venture conduct and activities without litigation or public disclosure. She also represents clients in criminal investigations before the Antitrust Division, including a recent grand jury investigation in the media industry. Finally, Ms. Mahan is frequently relied upon by clients to help guide their day-to-day business decisions and manage risk related to questions of pricing, technology, customer and vendor relationships, and overall strategic direction. Her clients value her pragmatic advice and creative
thinking in the development of novel strategies for improving compliance programs and mitigating risk.

Ms. Mahan is consistently recognized for Antitrust Litigation by Super Lawyers and recommended for Civil Litigation/Class Actions by Legal 500 US, where clients have noted she is “very smart and assertive.”

Dr. Craig Malam
Associate Director, NERA Economic Consulting (San Francisco/Sydney)
Dr. Craig Malam has more than ten years’ experience conducting economic research and analysis as part of investigations and litigation relating to competition issues, and for regulatory decision-making in Australia and the United States. He is currently based in NERA’s San Francisco office.

While in San Francisco, Dr. Malam has supported antitrust experts engaged in merger, cartels, bid-rigging, and breach of contract proceedings, across the consumer electronics, health care, retail, construction, and software industries. While working from NERA’s Sydney office, Dr. Malam conducted economic research and analysis for mergers across a range of industries including mining, gambling and wagering, retail mobile services, and waste/recycling.

As an economist at the Australian Competition and Consumer Commission (ACCC) Dr. Malam regularly conducted economic research and analysis to assist investigation teams and Commissioners across a range of competition and antitrust matters including mergers, price fixing, misuse of market power, and predatory pricing. His industry experience spanned cable television, cinema exhibition, supermarkets and primary production, automotive distribution, as well as financial markets.

Melissa H. Maxman
Managing Partner, Cohen and Gresser
Melissa H. Maxman is the Managing Partner of the firm’s Washington, D.C. office. She has decades of litigation experience at both the trial and appellate levels, primarily in the areas of antitrust, RICO, environmental law, complex commercial disputes, and white collar defense. She has extensive experience advising domestic and foreign corporations on global antitrust issues. She has represented clients in complex civil and criminal matters before the Federal Trade Commission, the Antitrust Division of the Department of Justice, and in private civil matters. Melissa has been recognized in Legal 500’s U.S. Guide in the commercial litigation and corporate investigations and white collar defense categories.

Prior to joining Cohen & Gresser, Melissa was the Chair of the Antitrust and Trade Regulation Practice Group in the Washington, D.C. offices of two large national law firms. She served as an Assistant United States Attorney in the Eastern District of Pennsylvania and was a law clerk for the Honorable Harry T Edwards of the United States Court of Appeals for the District of Columbia. Melissa is a cum laude graduate of the University of Michigan Law School, where she was editor-in-chief of the Michigan Law Review.

Melissa has been a member of the American Law Institute since 2003. She is also an Advisory Board member for the Institute for Consumer Antitrust Studies and is Co-Chair of the ABA National Institute on Class Actions. She is the immediate past chair of the Dean’s National Advisory Council for the Columbian College of Arts and Sciences at the George Washington University. She serves as Co-Chair of the Exemptions and Immunities Committee of the ABA Antitrust Section.

University of Michigan Law School (J.D., cum laude, 1988); George Washington University (B.A. 1983).

William Michael
Partner, Paul Weiss Rifkind
A partner in the Litigation Department, Bill Michael has extensive experience in antitrust litigation, including both civil and criminal government investigations, as well as other complex commercial litigation and appellate matters.
Bill previously served as Chair of the Editorial Board of *The Antitrust Practitioner*, a publication of the American Bar Association’s Section of Antitrust Law Civil Practice and Procedure Committee. He is the co-author of the “United States” chapter in the tenth and eleventh editions of *The Public Competition Enforcement Review* and the co-author of the chapter titled “Settling an Antitrust Case” in *Settlement Agreements in Commercial Disputes: Negotiating, Drafting & Enforcement*. Bill has also authored several articles on antitrust-related issues for publications that include the *New York Law Journal*, *Law360* and *Competition Policy International*. Bill was recognized in the 2018 edition of *The Legal 500 US* as a Recommended Lawyer in the Antitrust: Civil Litigation/Class Actions category.

Prior to joining Paul, Weiss, Bill was a trial attorney in the Antitrust Division of the United States Department of Justice, where he focused on civil merger and non-merger investigations in the telecommunications and media industries.

In law school, Bill was a senior editor of the *Yale Law Journal*.

**Andreas Mundt**  
**President, Bundeskartellamt**  
Andreas Mundt has been President of the Bundeskartellamt since 2009, member of the Bureau of the OECD Competition Committee since 2010 and the Steering Group Chair of the International Competition Network since 2013. After qualifying as a lawyer, Andreas Mundt entered the Federal Ministry of Economics in 1991. In 1993 he joined the staff of the Free Democratic Party in the German Parliament. In 2000 he joined the Bundeskartellamt as rapporteur and later acted as Head of the International Section and Director of General Policy.

**Gabriella Muscolo**  
**Commissioner, Italian Competition Authority**  
Since May 2014, Gabriella Muscolo is a Commissioner at the Italian Competition Authority.
James H. Mutchnik, P.C.
Partner, Kirkland & Ellis

Jim represents corporate and individual clients in antitrust and white collar crime defense matters and related commercial litigation matters in federal and state courts throughout the United States and before a variety of federal and state investigative agencies, including the Antitrust Division, United States Department of Justice, the Federal Trade Commission, United States Attorney’s Offices and the Securities and Exchange Commission. In the antitrust area, Jim specializes in litigating various matters involving domestic and international cartels, alleged price fixing, monopolization claims, price discrimination and representing clients in dealing with the antitrust aspects of mergers, acquisitions and joint ventures. Jim’s white collar crime defense and internal investigation matters cover price fixing, accounting fraud, FCPA violations, securities fraud and insider trading, public corruption, environmental crimes and other corporate crime issues. Jim is recognized annually by Chambers USA and Chambers Global as one of America’s Leading Business Lawyers in Antitrust and has been recognized as a leading lawyer by The International Who’s Who of Competition Lawyers and Economists. He has been recognized as an “Illinois Super Lawyer” by Super Lawyers magazine and was also recognized in recent editions of The Legal 500 U.S. for his “practical advice and superb service” in the area of Antitrust. Most recently, Best Lawyers recognized Jim as the Litigation – Antitrust Lawyer of the Year. Jim is the head of Kirkland’s e-discovery training program for attorneys and legal assistants. His prior work for the Antitrust Division and character were featured in the major motion picture, The Informant, and book of the same name.

Sharis Pozen
Co-Head, Global Antitrust Practice, Clifford Chance

Sharis Pozen is the Co-Head of the Global Antitrust Practice at Clifford Chance. She has extensive experience in both government and private practice. Over the course of her career, Sharis has held senior positions at GE, the U.S. Department of Justice, the U.S. Federal Trade Commission and two major law firms based in New York and Washington, D.C.

Prior to joining Clifford Chance, Sharis was the Vice President of Global Competition Law and Policy at GE, where she was responsible for merger clearance on numerous significant, transformational deals, steering global antitrust investigations to positive conclusions, antitrust compliance and other related issues.

Sharis is one of the few antitrust practitioners who has served in high-level positions at both the U.S. Department of Justice and the U.S. Federal Trade Commission.

While working at a major New York-based law firm, Sharis was a partner and a leader in their antitrust and competition practice, where she advised clients on a broad spectrum of antitrust issues related to mergers and acquisitions, litigation, criminal investigations and counseling across national and multinational industries, including technology and telecommunications, health care and pharmaceutical, energy, financial services, transportation and agriculture.

While serving as acting assistant attorney general at the U.S. Department of Justice, Sharis led many high-profile matters and worked extensively with leaders of international antitrust authorities. She also oversaw several criminal antitrust matters.

Prior to working at the U.S. Department of Justice, Sharis was a partner at a major Washington, D.C.-based firm, where she served as a director of the firm’s Antitrust Group. Her practice focused on antitrust issues and trade regulation across a broad spectrum of industries.
Enrico Adriano Raffaelli  
Founding Partner, Rucellai & Raffaelli  
Enrico is a graduate of the Milan University of Studies and has been a lawyer since 1976. He was a Founding partner of the Rucellai & Raffaelli law firm in 1979. Enrico specializes in national and European Community competition law (repeatedly Highly Recommended individual, PLC Which Lawyer? and Notable Practitioner, Chambers Partner Europe), intellectual property law, commercial law, commercial litigation and national and international commercial arbitration.

William Rinner  
Counsel to the Assistant Attorney General, The United States Department of Justice  
William Rinner is Counsel to the Assistant Attorney General, joining the Antitrust Division in September 2017. Among other responsibilities, he has advised the Assistant Attorney General on matters in the Appellate, Healthcare and Consumer Products, and Competition Policy and Advocacy sections, as well as on policy issues involving technology and intellectual property. Before joining the Division, Bill was an antitrust litigator in private practice in Washington, D.C. Bill previously clerked for the Honorable Richard Posner of the United States Court of Appeals for the Seventh Circuit. Bill is a graduate of Yale Law School and University of Notre Dame.

Howard Shelanski  
Partner, Davis Polk  
Howard Shelanski earned his B.A. from Haverford College and received his J.D. and Ph.D. in economics from the University of California at Berkeley. After graduating from law school he clerked for Judge Stephen F. Williams of the U.S. Court of Appeals for the D.C. Circuit, Judge Louis H. Pollak of the U.S. District Court in Philadelphia, and Justice Antonin Scalia of the United States Supreme Court. After practicing law in Washington, D.C., Professor Shelanski joined the Berkeley faculty in 1997, where he remained until coming to Georgetown in 2011.

Professor Shelanski has held several positions in the federal government. From 2013 to 2017, he served as Administrator of the White House Office of Information and Regulatory Affairs (OIRA). Before President Obama nominated him to OIRA, Professor Shelanski was Director of the Bureau of Economics at the Federal Trade Commission from 2012 to 2013, where he had previously been Deputy Director from 2009 to 2011. Earlier in his career, he was Chief Economist of the Federal Communications Commission (1999-2000) and a Senior Economist for the President’s Council of Economic Advisers at the White House (1998-1999).

In addition to being a member of the Georgetown Law faculty, Professor Shelanski practices antitrust law and is a member of the law firm of Davis Polk & Wardwell LLP. Professor Shelanski’s teaching and research focus on antitrust and regulation. In addition to numerous articles, he has co-authored leading casebooks, treatises and edited volumes in both antitrust and telecommunications law.

Joseph J. Simons  
Chairman, Federal Trade Commission  
Joseph J. Simons was sworn in as Chairman of the Federal Trade Commission on May 1, 2018. Before joining the Commission, Joe was a partner at Paul, Weiss, Rifkind, Wharton & Garrison LLP and Co-Chair of the firm’s Antitrust Group. His practice there focused on antitrust M&A, litigation, and counseling. Prior to joining Paul, Weiss, he was the Director of the FTC’s Bureau of Competition from 2001 until 2003, and he also served an earlier stint at the Bureau of Competition from 1987 to 1989 as Assistant to the Director, then Assistant Director for Evaluation, and finally Associate Director for Mergers. Along with a former chief economist of the Department of Justice Antitrust Division, Joe developed “Critical Loss Analysis,” a technique for market definition that has been adopted and used widely by the Antitrust Division, the FTC, and the U.S. Court of Appeals. It has also been incorporated into the DOJ/FTC Horizontal Merger Guidelines.

He received his A.B. in Economics and History from Cornell University in 1980 and his J.D.
Joe lives in Virginia with his wife, Martha. They have six children between them.

**Paul Stuart**

Barrister, Cleary Gottlieb

Paul Stuart’s practice focuses on UK and EU antitrust law and litigation.

Paul has advised clients on a wide range of disputes and investigations, and represented clients in proceedings before the EU General Court, the EU Commission, the Court of Appeal, the High Court, and the Competition Appeal Tribunal.

Paul’s antitrust litigation experience includes acting for LG Display in a follow-on damages claim by iiyama before the English High Court and Court of Appeal, for Sony in a follow-on damages claim by Microsoft Mobile that was stayed in favour of arbitration, and for NSK in a follow-on damages claim by Peugeot before the Competition Appeal Tribunal. Paul has also acted in European Court proceedings for the European Central Bank, Western Digital, and Google.

Paul joined Cleary Gottlieb in 2010 as an associate and was resident in the Brussels office from 2010 to 2012. Paul is listed as a Future Leader in Who’s Who Legal Competition and co-authored the Best Business Procedure article at Concurrences’ 2018 Antitrust Writing Awards.

**Dr. Will Taylor**

Senior Consultant, NERA Economic Consulting (Auckland)

Dr. Taylor is an Associate Director in NERA’s Antitrust and Competition; Energy; and Communications, Media, and Internet Practices. He provides expert analysis and advice to clients across New Zealand and Australia in matters involving antitrust, regulatory, and financial economics. Dr. Taylor regularly assists clients dealing with complex regulatory issues, merger and abuse of market power investigations and quantum disputes in litigation and arbitration.

In the field of competition economics, Dr. Taylor advises clients on mergers and acquisitions, contracting issues, and allegations of anticompetitive practices. His most recent case experience has involved analysis of the antitrust implications of technological disruption in the pay TV, insurance, broadband, and news/media markets. His broader experience spans industries including health care, manufacturing, forestry, retail, agriculture, transport, electricity generation and distribution, and waste.

In the regulatory sphere, Dr. Taylor has extensive experience in the design and operation of regulatory regimes and access pricing for communications services (fixed and mobile), energy networks (gas and electricity), airports, ports, and dairy. On energy matters more broadly, he has advised clients on market design, transmission pricing reform, and transmission governance in the gas sector. Dr. Taylor seamlessly brings together his extensive experience on both regulatory and competition issues, enabling him to provide highly valuable analysis and expertise to businesses on market studies and inquiries by governments and regulators. These studies typically assess competition and, if it is lacking, consider regulatory interventions.

Dr. Taylor’s expertise in financial economics is brought to bear in quantum disputes regarding infrastructure access, fair trading and misrepresentation claims, and commercial damages arbitrations and litigation.
T. Scott Thompson, PHD  
Partner, Bates White Economic Consulting

Scott Thompson specializes in antitrust analysis of alleged anticompetitive conduct. He has significant methodological expertise and extensive experience using economic models and empirical techniques to assess and quantify predicted effects of proposed mergers, agreements, and single-firm conduct.

Dr. Thompson has an extensive background providing antitrust analysis in support of expert testimony and enforcement decisions. Since joining Bates White he has represented clients before the Federal Trade Commission and the Antitrust Division of the US Department of Justice, and has worked often with clients and testifying experts on matters in litigation.

Dr. Thompson’s recent work on litigated matters includes the FTC’s litigation against Qualcomm, DOJ’s opposition to the AT&T Time-Warner merger, and DOJ’s opposition to Electrolux’s acquisition of GE’s major appliance business.

Prior to joining Bates White, he served as staff economist and the Assistant Chief of the Economic Regulatory Section of the Antitrust Division. In that role, Dr. Thompson conducted or supervised the agency’s economic analysis in numerous antitrust investigations in a wide variety of industries including computer software, healthcare, health insurance, investment products, payment systems, financial services, and medical technology.

Dr. Thompson has extensive experience in econometrics, simulation, survey design and analysis, analysis of vertical and horizontal restraints, and merger analysis.

Prior to joining the Antitrust Division, Dr. Thompson taught and conducted research in the field of econometrics at the University of Minnesota.

Over the course of his career, Dr. Thompson has contributed to the academic literature on market definition and market power, two-sided markets, theoretical econometrics, and international trade. He authored parts of the ABA Section of Antitrust Law’s treatise *Econometrics* (2005), and coauthored a chapter in *The Antitrust Revolution, Seventh Edition*.

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Dr. Nicola Tosini  
Associate Director (Berlin), NERA Economic Consulting

Dr. Nicola Tosini is an Associate Director in NERA's Antitrust and Competition Practice, primarily based in Berlin. He is an expert in the application of empirical and conceptual analysis to competition cases and has more than 10 years of experience advising firms during merger reviews, antitrust investigations, and the litigation of damages.

Dr. Tosini has submitted economic evidence to the European Commission and several national competition authorities. He has also been involved in the litigation of cartel damages before national courts, providing key input for court filings, settlement discussions, and expert reports.

Dr. Tosini’s experience spans a variety of industries, including automotive parts, building materials, chemicals, consumer packaged goods, electronics, freight transport and forwarding, passenger air travel, pharmaceuticals, retail, and telecommunications. He regularly speaks at conferences and writes articles on topics in competition economics. His article on the importance of innovation in the assessment of mergers has been awarded the Concurrences 2019 Antitrust Writing Awards.

Before joining NERA in 2016, he was an economic consultant in London and Berlin. He holds an MA and a PhD in economics from the University of Pennsylvania, and a Laurea in economics from Università Bocconi in Milan. He is a native Italian speaker and is also proficient in English and German.

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Darren Tucker  
Partner, Binson & Elkins

Darren Tucker is the chair of the firm’s antitrust practice group, where he focuses on merger and non-merger antitrust investigations in the technology, energy and pharmaceutical sectors. Darren draws on both his experience as a former Federal Trade Commission attorney and his more than 15 years in private practice to provide valuable insights to clients regarding
competition enforcement and policy issues. He advises clients on a range of pricing and distribution issues and helps clients close mergers, acquisitions and joint ventures worth billions of dollars annually.

In addition to representing clients before the Department of Justice and the Federal Trade Commission, Darren has extensive experience on competition matters outside the U.S., having counseled clients on antitrust matters in Europe, Canada, Japan, China, South Korea, Taiwan, Russia and Australia. He is skilled at collaborating with local counsel around the world, and he is among the few attorneys whose practice includes global dominance investigations.

**Ingrid Vandenborre**  
Partner, Skadden, Arps, Slate, Meagher & Flom

Ingrid Vandenborre is a partner at Skadden, Arps, Slate, Meagher & Flom. She is the managing partner of the firm’s Brussels office and currently serves on the firm’s governing body, the Policy Committee. Her practice focuses on EU and international merger control and competition law enforcement. Ms. Vandenborre has consistently been named as a leading practitioner in Who’s Who Legal guides in both competition and life sciences. She was recognized by Global Competition Review on various occasions, including being profiled as a leading antitrust attorney in its 2013 and 2016 Women in Antitrust issues.

She has successfully assisted companies in obtaining conditional immunity with the European Commission and other competition law agencies in and outside the EU. Ms. Vandenborre also is representing companies in proceedings before the European General Court against European Commission findings of cartel infringements, and is involved in the defense against civil claims arising from these findings. Recent representations include the immunity and leniency applicants in the EU power cables and car battery recycling cartel investigations, respectively. She currently serves as non-governmental adviser to the intergovernmental International Competition Network in relation to matters concerning cartel enforcement and private litigation.

Ms. Vandenborre is a graduate of the Catholic University of Leuven in Belgium and completed part of her law studies at Duke University School of Law. She holds an LL.M. degree from the University of Chicago Law School and is an alumna of the Belgian American Educational Foundation.

**Dr. Claire Xie**  
Senior Consultant, NERA Economic Consulting (New York)

Dr. Claire Xie is a Senior Consultant in NERA’s Antitrust and Intellectual Property Practices, where she conducts economic analysis in the areas of antitrust, intellectual property, and commercial damages.

In antitrust matters, Dr. Xie has evaluated the competitive effects of mergers and acquisitions, and has analyzed antitrust claims and damages in cases involving alleged monopolization and price fixing behaviors in industries such as agriculture, data management, finance, fuel retailing, pharmaceuticals, and telecommunications.

In the area of intellectual property, Dr. Xie has evaluated damages resulting from patent infringement and breaches of contract in the apparel, credit card, and pharmaceuticals industries.

Dr. Xie received her PhD and MA in economics from the University of Minnesota, Twin Cities, where she also taught microeconomics, macroeconomics, money and banking, and Chinese economy. She received her BA in economics and mathematics, summa cum laude, from Agnes Scott College.

**Koren W. Wong-Ervin**  
Director of Antitrust & IP Policy & Litigation, Qualcomm Incorporated

Koren W. Wong-Ervin is the Director of Antitrust & IP Policy & Litigation at Qualcomm Incorporated, a Senior Expert and Researcher at China’s University of International Business and Economics, and an Academic Advisor at China's University of Political Law & Science.
Prior to joining Qualcomm, Koren was the Director of the Global Antitrust Institute (GAI) and an Adjunct Professor of Law at George Mason University. While at GAI, Koren (along with Judge Douglas Ginsburg, Josh Wright, and Bruce Kobayashi) trained over 350 foreign judges and enforcers and submitted over 20 comments on foreign draft laws and guidelines.

Prior to joining George Mason, Koren was Counsel for Intellectual Property and International Antitrust in the Office of International Affairs at the U.S. Federal Trade Commission. She also served as an Attorney Advisor to Federal Trade Commissioner Joshua Wright.

Prior to working at the Commission, Koren spent almost a decade in private practice, focusing on antitrust litigation and government investigations with a particular focus on issues affecting clients in the technology and financial industries.

Koren currently serves on the American Bar Association (ABA) Section of Antitrust Law’s International Task Force and Due Process Task Force, and was previously co-chair of the ABA’s 2016 Antitrust in Asia Conference. From 2012 to 2015, she served as a vice chair of the Intellectual Property Committee within the Section of Antitrust Law. Prior to that, she served on the editorial boards of Antitrust Law Developments (7th edition), the leading two-volume antitrust treatise, and the 2003 Annual Review of Antitrust Law Developments, an annual supplement to the fifth edition of the treatise.

Koren graduated second in her class from the University of California, Hastings College of Law, where she was associate editor of the Hastings Law Review. She earned her BS degree magna cum laude in Political Science from Santa Clara University.

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**Tim Wu**

**Julius Silver Professor of Law, Science and Technology at Columbia Law School**


Wu was a law clerk for Justice Stephen Breyer and Judge Richard Posner, and has also worked at the White House National Economic Council, at the Federal Trade Commission, for the New York Attorney General, and in the Silicon Valley telecommunications industry. He has written widely for the popular press and is currently a contributing opinion writer for the New York Times.

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As Treatment of No-Poach Agreements Evolves, DOJ To Examine Antitrust in Labor Markets

Antitrust treatment of no-poach agreements continues to evolve as private cases progress, state attorneys general ramp up enforcement efforts and federal regulators further contemplate the legality of no-poach agreements.

Over the past two years, private plaintiffs have filed class action lawsuits challenging the use of no-poach commitments in franchise agreements, whereby the franchisor and/or franchisees agree not to hire each other’s employees. In most cases, plaintiffs have alleged that such provisions are unreasonable restraints of trade that should be evaluated under either the strict per se rule or “quick-look” analysis because the provisions at issue are so overwhelmingly anti-competitive that an inquiry into the potential pro-competitive justifications for such provisions — as required under the more permissive rule of reason standard — is unnecessary. More specifically, quick-look analysis involves an abbreviated rule of reason inquiry that relaxes the requirement of pleading anti-competitive effects in a relevant market and generally applies to situations in which an observer with even a basic understanding of economics would conclude that the restraint causes anti-competitive effects. In some recent no-poach cases, courts have held that quick-look analysis should apply, while others have declined to decide on the mode of analysis at the motion-to-dismiss stage, concluding that discovery should be complete before the court chooses the appropriate level of scrutiny.

A recent decision takes a different approach, suggesting that courts must carefully consider the scope of the alleged restraint and determine what level of antitrust scrutiny to apply when evaluating a defendant’s motion to dismiss. On July 29, 2019, Judge David M. Lawson of the U.S. District Court for the Eastern District of Michigan granted defendant pizza chain Little Caesars’ motion to dismiss in Ogden v. Little Caesar Enterprises, holding that the alleged no-poach agreement did not justify the application of either the per se rule or “quick-look” mode of antitrust analysis.1 The court declined to apply the per se rule after explaining that, in the U.S. Court of Appeals for the Sixth Circuit, the per se rule only applies to labor market restraints when there is an explicit agreement among competitors to either (1) fix wages or (2) divide the labor market into exclusive territories.

The court did not categorically reject the potential application of a quick-look analysis to no-poach agreements — a position the Department of Justice (DOJ) has advocated after multiple early no-poach decisions concluded that quick-look analysis might apply. Instead, the court concluded that the no-poach provisions in other cases where courts have held that a quick-look analysis might apply were “far more onerous and directly enforced employment restraints.” In contrast, with respect to the challenged provisions in Little Caesars’ agreements, the court observed: “Ogden does not allege that he tried to obtain employment at another Little Caesar franchise, let alone that he was offered a job for more pay that he had to refuse, or that another employer would hire him but for the no-poaching provision.” Because neither per se nor quick-look analysis applied and the plaintiff did not plead a claim under the rule of reason, the court granted the motion to dismiss in full.

On the enforcement front, state attorneys general also continue to target no-poach agreements. On August 8, 2019, Washington state Attorney General Bob Ferguson announced legally binding agreements with four more businesses — Aaron’s Inc. (a rent-to-own furniture retailer), H&R Block, Mio Sushi and The UPS Store — to end the compa-

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nies’ use of no-poach provisions in their franchise agreements, including provisions that prohibited an individual franchisee from hiring another franchisee’s employees without prior consent. Among other terms, the settlement agreements require that each company: (1) no longer include no-poach language in new franchise agreements; (2) stop enforcing no-poach provisions in existing franchise agreements nationwide; and (3) remove the no-poach provision from all Washington contracts within 120 days. Since launching his no-poach investigation in January 2018, Ferguson has reached similar agreements with 66 franchise-based companies.

Ferguson and his allies have also recently focused their advocacy efforts on federal regulators. On July 15, 2019, Ferguson and 16 other state attorneys general jointly filed a public comment with the Federal Trade Commission (FTC) in response to the FTC’s recent series of hearings on competition and consumer protection in the 21st century. In the comment, the attorneys general made two principal recommendations regarding no-poach agreements. First, they argued that the FTC should use its Section 5 enforcement authority to stop the use of no-poach agreements “in many situations,” though they failed to identify any specific situations. Second, they urged the FTC to ban all intrafranchise no-poach agreements for low-wage workers, an action they noted the FTC already is considering.

The comment also directly addressed the conflict between the authors’ position and the position taken by the DOJ in its recent advocacy efforts, with the DOJ arguing that intrafranchise no-poach agreements generally should be analyzed under the full rule of reason due to their potential pro-competitive benefits. In contrast, the attorneys general argued that their local enforcement activities have not uncovered evidence that the pro-competitive effects of such provisions are equal to or outweigh the broader anti-competitive effects on the labor market. Consequently, the attorneys general concluded that such agreements should continue to be evaluated by courts under per se or quick-look antitrust analysis.

The states will soon have the opportunity to make their case directly to the DOJ. Although the DOJ has recently argued that courts should analyze franchise no-poach agreements using the rule of reason, it announced that it will hold a public workshop on September 23, 2019, to discuss the role of antitrust in labor markets. Given the increasingly contrasting positions among several states, district courts and the DOJ, the workshop will surely be closely watched.

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Economic and Legal Issues in Indirect Purchaser Class Actions

William B. Michael

Paul|Weiss

September 11, 2019
Comcast and the Need for "Rigorous Analysis"
Comcast v. Behrend (2013)

- Established/confirmed rigorous standard of proof for *predominance*
- Rule 23 is not “a mere pleading standard”
- Court must conduct “rigorous analysis” and take a “close look” to determine whether common questions predominate over individual ones
- Class certification improper where plaintiffs’ proof “failed to establish that damages could be measured on a classwide basis”
FRE 702 and *Tyson*

Expert testimony must be “based on sufficient facts or data.” FRE 702(b)

Plaintiffs must show that their expert’s data “sample is a permissible means of establishing [impact] in a class action by showing that *each class member could have relied on that sample to establish liability had each brought an individual action.*”

Tyson and the Need for Representative Data

“Representative evidence that is statistically inadequate or based on implausible assumptions could not lead to a fair or accurate estimate of [impact].”

Economic and Legal Issues in Indirect Purchaser Class Actions

46th Annual Conference on International Antitrust Law and Policy Antitrust Economics Workshop

Mike Kheyfets
September 11, 2019
Introduction

1. The level of rigor in economic modeling of IPP claims has continued to evolve

2. Compared to DPP cases, economic issues in IPP cases can be as (or more) complex
   • “Downstream” assessment requires additional economic models (and additional discovery)

3. Roadmap for today
   • Introduce key concepts in the economic analysis of indirect purchaser cases
   • Discuss real-world economic factors unique to indirect purchaser analysis
   • Panel discussion of how economic analysis informs legal analysis
Economic Framework: Step 1

Manufacturer (Defendant) → Reseller (Direct) → Consumer (Indirect)

Overcharge:
- Defendants’ conduct caused their customers to pay higher prices than those that would have prevailed in the “but-for world.”
- All or nearly all direct purchasers paid an overcharge.
Economic Framework: Step 2

Manufacturer (Defendant) → Reseller (Direct) → Consumer (Indirect)

Pass-Through:
- The overcharge was at least partially passed through from direct purchasers to all or nearly all indirect purchaser class members.
Assuming direct purchasers were overcharged, did they pass at least some portion of those overcharges through to indirect purchasers?

Pass-through regressions frequently used to study whether resellers change their prices to indirect purchasers in response to any overcharges they paid

• “Indirect purchasers” may be end consumers or other entities in the supply chain that are downstream from direct purchasers

If overcharges were passed through to indirect purchasers, they are said to have suffered economic harm resulting from the alleged conduct
Assessment of pass-through is an empirical question: How did resellers change their prices to indirect purchasers in response to any overcharges they paid?

Stylized Pass-Through Regression

\[ \text{Price paid by indirect purchaser} = a + b \cdot \text{Price paid by reseller for product at issue} + c \cdot \text{Other factors that determine price charged by indirect purchaser} + e \]

Coefficient \( b \) interpreted as estimate of pass-through
Econometric modeling is concerned with identifying causal relationships.

Relevant question in an IPP analysis is:

- Did an overcharge cause resellers to increase their prices to IPPs?  
- Not
- Is there a general relationship between total cost and price?
What Complicates a Pass-Through Analysis?

The existence of a relationship, on average, between price and total cost may not reflect real-world factors that could limit or eliminate pass-through of an overcharge.

1. Supply chain complexity
2. Incorporation of relevant product into finished goods
3. Downstream pricing strategies
4. Pass-through into product quality
Supply Chain Complexity

Real-world supply chains can be complicated

- Different types of resellers (serve different customers, employ different pricing strategies)
- Multiple levels of resale to get to consumers (i.e., “tracing” an overcharge all the way through the chain)
- Some entities may be both direct and indirect purchasers

Potential data coverage/representativeness issues


www.edgewortheconomics.com
While some entities resell relevant products “as is,” others use them as inputs into producing finished goods for purchase by consumers

- Pricing dynamics for the finished good may depend on many factors unrelated to the cost of individual components
- For example, the price a consumer paid for a car is separated by several levels of decision-making from what the carmaker paid for a part allegedly affected by anticompetitive conduct
Real-world pricing strategies may constrain seller’s flexibility in passing through an overcharge

- Many consumer products priced at “focal” points (ending in $9 or 99¢)
  - Retailer may choose to leave price unchanged whether or not there is an overcharge, rather than move off a focal point

- Line pricing: products with slightly different features priced identically
  - A product affected by anticompetitive conduct may not be re-priced if that puts it “out of line” with similar products

- Other strategic “demand-side” considerations in pricing, unrelated to cost
  - For example, entry-level iPhones were priced at $649 for years, even through manufacturing costs of different models varied
Discounts (and rebates) throughout the supply chain affect actual prices paid and actual costs—the essential inputs into a pass-through study.

- A reseller that received a rebate/discount paid a different net price than one that didn’t. Without accounting for the rebate, the former’s price paid would not be measured correctly.
- Also, would not appropriately reflect net cost in the analysis of pass-through by that reseller.

Products at issue may be bundled (and priced together) with other products or services.
- Bundles may be priced strategically, not as the sum of individual product prices.
- Pass-through on a stand-alone product not necessarily reflective of pass-through on a bundle.
Plaintiffs in some cases (e.g., consumer electronics) have claimed that manufacturers of finished products respond to an overcharge by decreasing quality of their products, rather than increasing price.

- For example, if a manufacturer is determined to set its price at a focal point, it may reduce the quality of its product when its costs increase.

This theory falls outside the scope of the typical price pass-through regression model, which studies the relationship between cost and price.

- Models that can assess the relationship between cost and quality would need to be developed.
Consumer Electronics Component Antitrust Cases
Northern District of California

CRTs

LIB Cells

LCDs

LIB Packs

ODDs

19
IPPs Did Not Account for Focal Point Pricing

- The Court found that a fatal defect in IPPs’ purported “show[ing] that pass-through and damages can be established by expert analysis on a class-wide basis” was that IPPs’ pass-through model failed to account for focal point pricing:

  Further, the Court is not satisfied that plaintiffs or their experts have explained how the pass-through analysis here demonstrates the antitrust impact is “passed on” to each level of the indirect purchasers in the distribution chain. As the SRAM court indicated, indirect purchaser

  but apparently has offered no methodology to account for it in his analysis. Likewise, Dr. Leamer’s

  opinions, on reply, about focal point pricing and adjustments to quality rather than cost, were not

  adequately supported or explained in his pass-through analysis.  

Order at 19.
IPPs Did Not Account for Rebates, Discounts, and Bundling

• The Court found that another fatal defect in IPPs’ purported “show[ing] that pass-through and damages can be established by expert analysis on a class-wide basis” was that Dr. Leamer offered no methodology to account for “rebates, discounts, and bundling” which “affect the accuracy of cost data”.

Further, the Court is not satisfied that plaintiffs or their experts have explained how the pass-through analysis here demonstrates the antitrust impact is “passed on” to each level of the indirect purchasers in the distribution chain. As the SRAM court indicated, indirect purchaser

Leamer acknowledged that bundling, rebates, and discounts would affect the accuracy of cost data, but apparently has offered no methodology to account for it in his analysis. Likewise, Dr. Leamer’s

Order at 19.
Products Frequently Sold at Focal Point Prices
Third-Party Sales Data Confirm the Prevalence of Focal Point Prices

- Amazon sold 60% of all notebook PCs at focal point prices.
- Best Buy sold 82% of all notebook PCs and 75% of camcorders at focal point prices.
- Ace Hardware sold 86% of all power tools at focal point prices.
- MEI sold 96% of all notebook PCs and 80% of all camcorders at focal point prices.
Focal Point Pricing Is Particularly Relevant Where the Alleged Overcharge Is Small Compared to the Finished Product Cost

$$\text{Cell Overcharge} = \$0.36$$ (Average)

- Thus, for notebook computers with six cells, the average estimated overcharge would amount to only $2.16, which represents 0.12% - 0.86% of notebook PC prices sold at Best Buy.

- For camcorders with two cells, this would amount to $0.72, which represents roughly 0.07% - 1.20% of camcorder prices sold at Best Buy.
Evidence of Retailers Selling Products Below Cost

- LIB Product retailers commonly operated on a **negative gross margin for portable computers** and sold at prices which did not cover the retailers’ total inventory costs and selling costs.

- Best Buy associates were expected to “**build the basket**” on portable computer sales—i.e., **bundle such low or negative-margin products with profitable items such as a Geek Squad service, extended warranty, software, or accessories.**

- Thus, the focus was on **basket profitability** and **lifetime value of the customer** rather than profit maximization on the computer itself.
Uninjured Class Members
In re Rail Freight (D.C. Cir. Aug. 16, 2019)

• **The Defendants:** 4 largest freight railroads in U.S.
• **The Plaintiffs:** Putative class of 16,000 direct purchasers (shippers)
• **The Claim:** Defendants allegedly conspired to fix rate-based fuel surcharges
• **The Decision:** Class certification denied for lack of predominance — plaintiffs’ expert’s model showed no injury to 2,000 class members (~12.5%)
“Meeting the predominance requirement demands more than common evidence the defendants colluded to raise fuel surcharge rates. The plaintiffs must also show that they can prove, through common evidence, that all class members were in fact injured by the alleged conspiracy.”

Rail Freight I (D.C. Cir. 2013)
All or “virtually all”? 

“For the sake of argument, we assume that the district court correctly recognized a *de minimis* exception to the general rule that, for claims under section 4 of the Clayton Act, causation and injury must be ‘capable of classwide resolution.’”

*Rail Freight II (D.C. Cir. 2019)*
How many uninjured class members are too many?

- The "few reported decisions involving uninjured class members ‘suggest that 5% to 6% constitutes the outer limits of a de minimis number.’"
- Key question: “when does the need for individualized proof of injury and causation destroy predominance?”
- Raw numbers matter
- Revenue is “irrelevant to predominance”
### In re Lidoderm (N.D. Cal. 2017)

- **55** total class members
- **3** uninjured (contested)
- “Defendants do not dispute that there was impact to 52 DPPs and only challenge the injury as to three others. Even if these three are not properly included in the class, their inclusion has at most a *de minimis* impact and does not preclude certification.”

### In re Rail Freight (D.C. Cir. 2019)

- **16,000** total class members
- **2,000** uninjured (contested)
- “six percent of a ‘class totaling only fifty-five’ members might be *de minimis*, but 12.7 percent of this class yields ‘2,037 uninjured class members’ (according to common proof), all of whom would need individualized adjudications of causation and injury.”
Courts cannot defer questions about uninjured class members

- District courts are not permitted “to defer questions about the number and nature of any individualized inquiries that might be necessary to establish liability. To the contrary, **confronting such questions is part-and-parcel of the ‘hard look’ required by *Wal-Mart* and *Comcast*.**"
Evidence that class members “may have” or “must have” been injured is not enough

- Court rejected “prediction error” as explanation for negative damages
  - This “describes a possible problem with [plaintiffs’] own evidence”

- Court rejected expert testimony that:
  - “because these [2,037] shippers made fewer purchases on average, and thus had less bargaining power than the rest of the class, they must have been more susceptible to injury”
  - Small customers “collectively” paid higher prices than larger ones

- These do “not point to affirmative evidence—much less common affirmative evidence—that a conspiracy did in fact injure these shippers.”
Same issues apply to indirect purchasers

- “Pay for delay” case
- Three groups of potentially uninjured indirect class members:
  - “brand loyalists”
  - co-payment coupon recipients
  - purchased only after reaching out-of-pocket maximum
- Estimated total: 25,000 individuals, or 8% of the class
In re Intuniv Antitrust Litigation

- Class cert denied
- Defendants entitled to challenge whether individual class members were in fact injured
- “Identifying uninjured consumers with any degree of confidence would require an assessment of individual-specific facts such as the consumer’s insurance plan, any peculiar views about the equivalence of brand and generic Intuniv . . . and potentially other factors”
- Plaintiffs presented no “reasonable and workable plan” to “weed out” uninjured class members
Key Takeaways

• Presence of uninjured class members matters
• Even if uninjured class members account for a small volume of purchases, or a small percentage of the class, may still destroy predominance
• District courts must confront whether individual inquiries are necessary to determine injury
• Rigorous proof of injury-in-fact required
• Indirect purchasers may face even greater challenges given pass-through, consumer preferences, and other individualized issues
The Evolving Antitrust Treatment of Labor-Market Restraints: From Theory to Practice

July 31, 2018

Randy M. Stutz*

OVERVIEW

This paper explores the role of antitrust law in protecting workers by policing mergers and conduct that have anticompetitive effects in labor markets. After reviewing the antitrust treatment of buyer power in labor markets, the paper catalogues and summarizes recent literature on the intersection of antitrust and labor policy. The paper concludes by exploring emerging themes and questions from the recent literature and making recommendations to facilitate the translation of new insights into effective antitrust enforcement.

AAI will continue to track the growth and development of modern thinking on what antitrust can do to protect workers and integrate new insights into its competition advocacy. For an encapsulation of AAI’s views, see Diana Moss, Antitrust and Inequality: What Antitrust Can and Should Do to Protect Workers, Am. Antitrust Inst. (Apr. 2017).

BACKGROUND

I. Growing Interest in Combatting Buyer Power in Labor Markets

The antitrust laws protect against mergers and conduct that harm all forms of competition. This includes the competition that affords the best prices as well as the competition that affords the best quality, choice, and innovation. It includes the competition that occurs between sellers as well as the competition that occurs between buyers. But the competition that occurs between buyers, whether of the price or non-price variety, has historically received less attention from scholars and enforcers than the competition that occurs between sellers.

In recent years, this dynamic has begun to change. With mounting macroeconomic evidence of increased concentration and higher markups, and large firms occupying several important, “winner-

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takes-most” markets, the threat of buyer-side abuses has become more pronounced. In particular, experts and enforcers have been paying closer attention to the effects of market power and excessive bargaining leverage on the buyer side of the labor market, which implicates competition among employers to hire and retain workers. When workers are at the mercy of powerful employers to earn a living, those employers often have the ability and incentive to depress wages or diminish the quality of non-wage terms of hiring and employment.

II. Grappling with Past Inattention to Labor-Market Effects

Historically, the antitrust laws have rarely been invoked to target employer restraints on the basis of anticompetitive labor-market effects. But it is not clear why. Several explanations are possible, ranging from the theoretical to the practical.

A. Cognitive Dissonance Owing to the Labor Antitrust Exemptions

One explanation is a belief held by conservative scholars that labor and antitrust policy should be kept separate because they are conceptually distinct and pose a choice among competing values. It is sometimes highlighted, for example, that the statutory and non-statutory labor exemptions combine to shield collusive behavior on both sides of labor negotiations. Moreover, the higher wages resulting from the collective bargaining process can theoretically harm downstream product-market competition by raising marginal costs and reducing output.

To be sure, the labor exemption is strong evidence that collective bargaining restraints in labor markets pose a choice among competing values. In exempting labor and management from antitrust scrutiny during lawful collective bargaining, Congress chose to elevate the national interest in fair wages and working conditions above the national interest in promoting competition among workers. But the “competing values” theory does not explain the relative scarcity of enforcement actions against anticompetitive employer restraints outside the collective bargaining context. When it does not interfere with the lawful activities of labor organizations, policing buyer restraints in labor markets can help protect workers from substandard wages and consumers from artificially high prices. It can

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5 Although the exercise of buyer power upstream has the effect of lowering the powerful buyer’s input costs, it nonetheless harms consumers because the lower input costs typically induce the powerful buyer to purchase a smaller quantity of inputs, which has the effect of raising the powerful buyer’s marginal production costs and in turn raising prices downstream. See Alan Devlin, Questioning the Per Se Standard in Cases of Concerted Monopoly, 3 Hastings Bus. L.J. 223, 230-232 (2007). The powerful buyer still profits significantly in the bargain. See Peter C. Carstensen, Competition Policy and the Control of Buyer Power 40-43, n.5 (2017) (noting application of this principle to employment and agricultural
thus serve the interests underlying both labor and antitrust policy, thereby amplifying the societal benefits of enforcement.

Conservative scholars also sometimes argue that restraints having only labor-market effects are insufficiently “commercial” to fall within the ambit of the antitrust laws. In the past, for example, conservative scholars have over-read the first sentence of Section 6 of the Clayton Act, which provides that the “labor of a human being is not a commodity or article of commerce.” Because many of the Clayton Act’s prohibitions are limited to “any person engaged in commerce,” such scholars maintain that “employer restraints in labor markets are illegal, if at all, because of their intended or actual product market consequences rather than because of their labor consequences.”

But this argument is defeated by longstanding case law and is contrary to the legislative intent of Section 6. Twelve years after Section 6 was enacted, the Supreme Court in Anderson v. Shipowners’ Ass’n of Pacific Coast held unequivocally that the antitrust laws apply to wage-fixing conspiracies and that an inquiry into whether such conspiracies have additional commercial effects beyond their employment effects is unnecessary. Moreover, courts have not developed a labor exemption that is “symmetrical” in permitting both workers and employers to engage in conduct that violates the antitrust laws. Instead, courts read the second sentence of Section 6, which articulates an exemption only for workers, as limiting rather than expanding upon the first sentence. This is consistent with the view of Section 6 as a “one-way street,” protecting labor unions but not protecting employers.

To hold otherwise, courts would have to ignore congressional intent, which was to protect workers and against management by permitting laborers to cartelize their side of the labor market but not permitting management to cartelize its side.

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6 Notably, however, Section 7 of the Clayton Act differs in that it applies to “person[s] engaged in commerce or any activity affecting commerce.” Compare 15 U.S.C. § 17, with, e.g., 15 U.S.C. §§ 13(a), (c)-(f), 14; see also infra note 8.

7 Jerry & Knebel, supra note 2, at 174 (arguing antitrust laws do not apply to “concerted employer conduct whose purpose or effect is to restrain only the labor market”).

8 272 U.S. at 363 (“It is not important, therefore, to inquire whether, as contended by respondents, the object of the combination was merely to regulate employment of men, and not to restrain commerce.”); see also Eichorn v. AT&T Corp., 248 F.3d 131, 140–41 (3d Cir. 2001) (“[E]mployees may challenge antitrust violations that are premised on restraining the employment market.”); Roman v. Cessna Aircraft Co., 55 F.3d 542, 544–45 (10th Cir. 1995) (“Just as antitrust laws seek to preserve the free market opportunities of buyers and sellers of goods, so also it seeks to do the same for buyers and sellers of employment services.”); Areeda & Hovenkamp, supra note 3, ¶ 352, at 430 (“Antitrust addresses employer conspiracies controlling employment terms precisely because they tamper with the employment market and thereby impair the opportunities of those who sell their services there.”). The question is also moot insofar as hiring and employment are a form of “trade.” The Sherman Act applies to restraints of “trade or commerce,” and “trade” has been defined broadly to include employment. See United States v. National Assoc. of Real Estate Boards, 339 U.S. 485, 489 (1950) (defining “trade” under the Sherman Act as “equivalent to occupation, employment, or business, whether manual or mercantile”). The Clayton Act applies to mergers that may substantially lessen competition “in any activity affecting commerce,” and trade is undoubtedly such an activity. Cf. Anderson, 272 U.S. at 364 (restraint on the employment of seamen was a “direct and primary” interference with ocean-shipping commerce insofar as it involved an activity “affecting such commerce”).

9 Areeda & Hovenkamp, supra note 3, ¶ 257a, at 224–45 (“that is, labor is ‘not an article of commerce’ only when it is being sold by a labor organization not having capital stock, etc.”).

10 James M. Altman, Antitrust: A New Tool for Organized Labor?, 131 U. Penn. L. Rev. 127, 147 (1982); see Areeda & Hovenkamp, supra note 3, ¶ 257a, at 25 (“In passing §6 of the Clayton Act, Congress was clearly taking sides with labor and against management by permitting laborers to cartelize their side of the labor market but not permitting management to cartelize its side.”).
in response to misguided applications of the antitrust laws targeting unions.\(^\text{11}\) Indeed, to use Section 6 to shield employers who harm workers arguably would be a similar kind of perversiveness that prompted the provision’s inclusion in the Clayton Act in the first place.\(^\text{12}\)

### B. Mistaken, Hyper-Literal Interpretations of the “Consumer Welfare” Standard

A second theory to explain antitrust’s past inattention to labor-market effects is that its traditional reference point of consumer welfare necessarily focuses scholars’ and enforcers’ attention on the seller side of the market rather than the buyer side. To be sure, a “consumer” is commonly understood as an end-purchaser of goods or services for personal use. And the welfare of end-purchaser consumers was a primary concern of Congress in enacting the antitrust laws.\(^\text{13}\) But “consumer welfare” is not akin to statutory language subject to strict construction. Rather, it is a term of art. It serves as a conceptual shorthand for the idea that antitrust protects the beneficial effects of competition in the economy, which are enjoyed by consumers, intermediate purchasers, and input suppliers (among others).\(^\text{14}\)

Thus, courts and enforcers have always recognized that the antitrust laws prohibit anticompetitive market distortions that harm intermediate purchasers in a supply chain even if a price effect is not traced through to final consumers.\(^\text{15}\) Likewise, the laws have always applied to competitive

\(^{11}\) See Areeda & Hovenkamp, supra note 3, ¶ 257a, at 25 (citing and discussing legislative history, H.R. No. 627 63d Cong., 2d Sess. (1914)); see also Sandep Vaheesan, Accommodating Capital and Policing Labor: Antitrust in the Two Gilded Ages (forthcoming in Maryland L. Rev).

\(^{12}\) See Altman, supra note 10, at 142-56; Devlin, supra note 5, at 237, n.52. To give the reading advanced by Jerry & Knebel, supra note 2, courts would also have to take the dubious step of construing the first sentence of Section 6 as an implied repeal that altogether exempts large swaths of employment-related conduct from antitrust scrutiny. Such implied repeals of the antitrust laws are strongly disfavored. United States v. Phila. Nat’l Bank, 374 U.S. 321, 350 (1963); see also Goldfarb v. Virginia State Bar, 421 U.S. 773, 787 (1975) (holding that “[t]he nature of an occupation, standing alone, does not provide sanctuary from the Sherman Act,” and finding no support “for the proposition that Congress intended any such sweeping exclusion”).


\(^{15}\) See, e.g., FTC v. Indiana Fed’n of Dentists, 476 U.S. 447, 461 (1986) (agreement among dentists that harmed insurers violated antitrust laws where it “disrupt[ed] the proper functioning of the price-setting mechanism” notwithstanding absence of proof it resulted in higher prices); see also Illinois Brick Co. v. Illinois, 431 U.S. 720 (1977) (vesting intermediate purchasers with right to recover for harm to competition regardless of whether harm is passed on to end-consumers); Hanover Shoe, Inc. v. United Shoe Machinery Corp., 392 U.S. 481 (1968) (holding defendants liable for harming competition regardless of whether pass-on occurs). Indeed, while it is often repeated that the antitrust laws “protect competition, not competitors,” the laws also protect the lost profits of rivals who are injured by market distortions, without regard to corresponding price effects on consumers. See Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 119 (1969) (antitrust damages for excluded rival may be measured based on the rival’s “smaller share of the market than it would have had” absent the anticompetitive conduct).
distortions on the buyer side of the market even if a harmful output effect is not traced through to a price or output effect in the downstream consumer-product market.\textsuperscript{16}

The term “consumer welfare” has at times been subjected to misuse or misperception. Perhaps most famously, Robert Bork’s \textit{The Antitrust Paradox} engendered long-lasting confusion by conflating the concepts of consumer welfare and total welfare.\textsuperscript{17} More recently, modern critics have argued that the consumer welfare standard is so intertwined with Professor Bork’s vision as to be incapable of reaching beyond short-run consumer price effects to address long-run, dynamic, upstream, or non-price effects.\textsuperscript{18} While this is a valid descriptive critique of the consumer welfare standard as misapplied during a long era of lax antitrust enforcement, it is demonstrably incorrect as a critique of the standard on its merits. As case law and the federal agencies’ enforcement records can attest, the standard alone does not (and never has) stood in the way of enforcement actions against employer restraints in the labor market, or other buy-side restraints.\textsuperscript{19}

\section*{C. Taking the Legal and Evidentiary Path of Least Resistance}

Other possible explanations for antitrust scholars’ and enforcers’ inadequate focus on the buy side are more innocent, if still not justifiable. Perhaps the sell side is simply where the disproportionate amount of harmful effects from anticompetitive conduct are most readily observable, whereas effects on the buy side may be more insidious.\textsuperscript{20} Or, perhaps public and private enforcers have been dissuaded by the challenges and costs of litigating buy-side restraints. They may view sell-side restraints, by comparison, as low-hanging fruit.\textsuperscript{21}

\footnotesize{\textsuperscript{16} See, e.g., Weyerhaeuser Co. v. Ross-Simmons Hardwood Lumber Co., 549 U.S. 312, 324-25 (2007) (“Even if output prices remain constant, a predatory bidder can use its power as the predominant buyer of inputs to force down input prices and capture monopsony profits.”); Hemphill & Rose, supra note 14, at 2087-92 (citing and discussing “numerous cases [that] are premised on input market effects alone, particularly when output market harms may be comparatively difficult to measure or demonstrate,” but also where “immediate harm to the output market may be attenuated or absent”); Moss Testimony, supra note 14, at 6-8 (discussing further examples).


\textsuperscript{19} See supra notes 8-12 and accompanying text; supra note 16; infra note 28.

\textsuperscript{20} See Carstensen, supra note 5, at 1 (“abuse of buyer power is often more embedded in the market process” and may lead to lower input prices “that can take on a superficial, pro-consumer character, making its harmful characteristics less visible”); cf. A. Douglas Melamed & Nicolas Petit, Before \textit{“After Consumer Welfare” – A Response to Professor Wu 4}, CPI North Am. Column (July 2018) (“[I]like others, antitrust lawyers and economists may look for the lost keys under the lamppost because that is where the search is easiest.”).

Finally, in labor markets in particular, perhaps there is simply a prevailing misperception that market power is unattainable because “there are a lot of jobs out there,” or that it is rendered benign by the protections afforded from labor and employment law. Indeed, evidence that labor markets are no longer competitive, and the implications of sustained assaults on traditional worker protections, have come into sharper focus only relatively recently.

III. Asking New Questions and Seeking New Answers

Whatever the explanation for past inattention to the competitive effects of employer restraints in labor markets, the status quo has shifted. Over the last several years, in an initiative begun by the Obama Administration and continued during the Trump Administration, the Antitrust Division of the Department of Justice (DOJ) and the Federal Trade Commission (FTC) have moved to criminalize naked no-poaching and no-hiring agreements among competing employers. At the same time, state enforcers and the private plaintiffs’ antitrust bar have focused resources and enforcement efforts on collusive buyer restraints harming workers, including employees or individual sellers in the agricultural, nursing, high-tech, fast-food, and other sectors. And in merger cases, the government has advanced theories of harm predicated on depressed input prices paid to small sellers of products and services, although not yet on depressed wages.

In addition to these important developments, scholars and policy experts have been exploring the nature and extent of labor-market power, as well as possible solutions. The next section reviews and summarizes this recent scholarly literature. It begins in late 2016, which marked the most

23 See Naidu et al., supra note 21, at 5.
24 Id. at 17-23 (discussing development of empirical research questioning the competitiveness of labor markets over the last two decades).
25 See, e.g., Celine McNicholas, Zane Mokhiber & Marni von Wilpert, Janus and fair share fees: The organizations financing the attack on unions’ ability to represent workers, Econ. Policy Inst. (Feb. 21, 2018) (chronicling sustained legal and legislative attacks on worker rights over the last decade); see also White House Council of Economic Advisors, supra note 21, at 12-13 (noting union membership dropped from 25% to 10% of total employment in the U.S. from 1955 to 2015, and it is now even lower in the private sector, at less than 7%).
29 This survey is limited to only a subset of recent articles that address anticompetitive labor-market effects specifically. It does not purport to be comprehensive, and it does not incorporate other important recent work devoted to the broader subject of buyer power, see e.g., Carstensen, supra note 5; Hemphill & Rose, supra note 14, or the impact of concentration and declining competition on labor’s share of gross domestic product, see supra note 1.
significant executive branch foray into labor-market power issues when the Obama Administration published a significant report and began the aforementioned criminalization initiative. This literature review provides brief summaries to help track and connect the continuing growth, development, and evolution of modern thinking on the role of antitrust (and other competition policy tools) in labor markets.

**Review of Recent Literature on Labor-Market Competition**


In this Issue Brief (“brief”), the White House Council of Economic Advisors begins by identifying a long-term macroeconomic trend of slow wage growth and rising inequality in the United States. The brief attributes this development partly to the fact that the share of income accruing to labor has been falling since the 1970s and in a state of accelerated decline over the last 15 years. The brief posits that a general reduction in competition among firms has contributed to this inequity by shifting the balance of bargaining power towards employers. The brief then reviews the economic theory of labor-market monopsony and its harmful distributive and efficiency effects. It also identifies and discusses sources of labor-market monopsony power in the United States, citing (1) market concentration, (2) employer collusion, (3) employer use of non-compete clauses, (4) search costs and “frictions,” and (5) regulatory barriers to worker mobility.

The brief then reviews evidence of monopsony power manifesting in the U.S. economy. Examples offered include court cases alleging employer collusion, as well as surveys suggesting 18% of the U.S. labor force is subject to non-compete agreements (including low-wage workers unlikely to possess trade secrets). The brief also points to empirical research suggesting both that minimum-wage increases have not been accompanied by job loss (as would be expected in a competitive labor market) and that worker “quit rates” are insensitive to wage changes (as would not be expected in a competitive labor market).

The brief concludes by recommending a variety of salutary measures. In the antitrust domain, it recommends stepped-up enforcement, along with whistleblower protections for employees who report antitrust violations. It also argues for legislative and regulatory reform to curb unnecessary non-compete agreements, strengthen minimum wage laws and collective bargaining rights, modernize overtime regulations, reform occupational licensing and land-use regimes, and increase availability of non-employer-based health insurance. Finally, it suggests several employer-centric policies, such as requiring better information-transparency policies for employees, support for equal pay rules, and support for improved leave policies.


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31 Individual works are listed in chronological order. For simplicity and readability, neither quotation marks nor pin cites are used in the brief summaries included with each article.
Krueger & Ashenfelter examine the 2016 franchise contracts of 156 of the largest franchise chains in the United States to determine the prevalence of no-poaching agreements in the sector. They find that 58% of major franchise chains include no-poaching agreements in their franchise contracts. They then present three theoretical models that may be useful in helping to predict the utilization of such agreements based on firm and industry characteristics.

Under the first model, “franchisor-level oligopsony,” all franchisees in a chain coordinate or collude to impose no-poaching agreements in order to reduce competition in their labor market and decrease the likelihood of a worker departing for another franchisee’s job offer. Under the second model, “dynamic monopsony,” individual franchisees use no-poaching agreements to reduce labor supply elasticity by preventing job offers from franchisees in the same chain. Under the third model, franchisees use no-poaching agreements to shift the division of the net return on investment in employee training. In other words, no-poaching agreements theoretically can enable employers to reduce worker bargaining power over any net surplus created from the employment relationship, including from training. Once this occurs, the employer can capture more of that surplus.

Krueger & Ashenfelter draw two additional observations from their research. First, franchise companies in industries with high labor turnover are more likely to impose no-poaching agreements than are those in low-turnover industries. Second, no-poaching agreements are comparatively less frequent in franchise industries with higher average wages and education levels, contrary to models that view no-poach agreements as a mechanism to encourage training investment or to protect intellectual property.

The authors conclude that the prevalence of no-poaching agreements in franchise contracts suggests many employers in the sector seek to restrict competition in the labor market, and that such agreements may have the effect of limiting employees’ job opportunities. They posit that the prevalence or effectiveness of such agreements may help explain a recent puzzle in the U.S. job market: Unemployment has reached a 16-year low and job openings are at an all-time high, yet wage growth has remained surprisingly sluggish.


Starr, Prescott and Bishara examine how pervasive non-compete provisions in employee agreements can inform our understanding of monopsony power in labor markets. The authors individually consider non-competes (1) as evidence of monopsony power, (2) as a tool to accomplish monopsonization, and (3) as a form of monopsony exploitation. They surveyed 11,505 labor force participants and found that one in five were bound by non-competes in 2014, and nearly 40% had signed at least one non-compete in the past.

Starr, Prescott and Bishara also document several troublesome trends. They find non-competes are more likely to be found in high-skill, high-paying jobs, but they are also surprisingly common in low-skill, low-paying jobs. In addition, less than 10% of employees negotiate over their non-competes, and roughly one-third of non-competes are signed after applicants have already accepted their job offers. Nearly two-thirds of applicants had no alternative employment opportunities at the time when their employer asked them to accept a non-compete. And in contrast to the literature suggesting procompetitive justifications for non-competes, those employees who accepted non-competes without negotiation or alternative employment opportunities reportedly received no
offsetting wage or training benefits and were comparatively dissatisfied overall with their employment.

Among other things, Starr, Prescott and Bishara conclude that their survey results suggest firms have substantial wage-setting power and that the presence of a minority of “term-conscious” candidates does not have the effect of disciplining contract terms imposed across all candidates. Non-competes thus allow firms to transfer temporary monopsony power (i.e., the temporary power a firm has over an employee who lacks an outside employment option) into long-term monopsony power over the workers bound by them. They also conclude that non-compete provisions may exacerbate market frictions by further reducing the elasticity of labor supply, and that the provisions allow employers to exploit existing frictions and generate new frictions from which the employer can profit at the expense of the employee.

In closing, the authors encourage states to consider implementing policies that reduce the use of non-competes. Notably, this includes states where non-competes are unenforceable in court, because some employers still use them despite their invalidity. More broadly, the authors encourage policies that promote labor-market competition and information-transparency for employees.


Azar, Marinescu & Steinbaum set out to directly quantify the level of labor market concentration across a wide range of occupations and to examine the relationship between concentration and wages. Using data from CareerBuilder.com, they define occupational markets using the Bureau of Labor Statistics Standard Occupational Classification (SOC) System. They define relevant geographic markets using commuting zones developed by the U.S. Department of Agriculture (USDA) using data from the 2000 Census. They measure market power in an occupational-geographic market by calculating HHIs based on the share of vacancies of all the firms that post vacancies on CareerBuilder for a given time period in each of 26 SOC 6-digit occupations. They also calculate HHIs based on shares of applications at CareerBuilder.

Azar, Marinescu & Steinbaum conclude that, using either measurement, local labor markets defined according to the selected criteria are highly concentrated on average based on the HHI thresholds used by the federal antitrust agencies in the 2010 Horizontal Merger Guidelines.

Using a regression analysis, the authors also find that higher labor market concentration is associated with significantly lower real wages. Among other things, they show that movement from the 25th to the 75th percentile in concentration is associated with a 17% decline in posted wages. They recommend continued attention to the competitive effects of concentration in labor markets and exploring the use of their analysis to incorporate labor-market concentration concerns as a factor in antitrust analysis.

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33 They determine shares based on “Expressions of Interest” by job seekers, such as clicks on the “Apply now” button.


Benmelech, Bergman and Kim also examine how monopsony power in local labor markets affects wage behavior. They focus on the ability of monopsonist employers in the corporate sector to exploit their labor-market power to reduce wages. The authors use micro-level Census data for the U.S. manufacturing sector covering the period from 1977-2009, including plant-level data obtained from the U.S. Census Bureau and the Longitudinal Business Database. They calculate HHIs to measure firm employment concentration by industry, county, and year.

Among other things, Benmelech, Bergman and Kim find that local-level employer concentration has increased considerably over time. They find that HHI increased 5.8% from the subsample period 1977-81 to the subsample period 2002-09. They also find a negative relationship between the local-level HHI measures of employer concentration and wages. This suggests employers operating in areas with more concentrated labor markets are able to exploit monopsony power to reduce employee wages. Moreover, they find that the negative relationship between employer concentration and wages doubled in magnitude from 1977-2009, which is strongly consistent with a secular decline in worker bargaining power during that time. Meanwhile, the negative relationship is significantly weaker among plants in industries with high unionization rates. And the link between wage growth and productivity growth is significantly larger when local-level employer concentration is small. 35


Marinescu and Hovenkamp examine the “staggering implications” of applying antitrust merger law to labor markets, offering the first reasonably comprehensive and empirically based legal-economic assessment of mergers that facilitate anticompetitive wage and salary suppression. They begin by examining the doctrinal requirements and statutory language of Section 7 of the Clayton Act, observing that the Act’s merger provision unambiguously applies to anticompetitive mergers by both buyers and sellers. They then provide a detailed explanation of the economic theory of monopsony in input markets and its effects. They show that monopsony in input markets produces the same allocative inefficiency and deadweight loss that is produced when a monopolist reduces output in a product market. And they explain that as labor markets move away from competitive equilibrium toward monopsony, wages and production both generally tend to decrease.

Marinescu and Hovenkamp also address practical considerations relating to merger enforcement. They argue that HHIs based on U.S. vacancy data can be used to make a labor-based prima facie case against a horizontal merger. However, they acknowledge several market-definition challenges. For example, there may be difficulties in applying a SSNRW test (“small but significant and non-transitory reduction in wages”) analogous to a SSNIP test. And there may be further difficulties in identifying horizontal rivals and computing concentration levels.

35 The authors also find that a rise in industry-level import competition from China is associated with increased employer concentration in local labor markets.
Although the authors conclude that 6-digit SOC occupations are typically too broad to constitute an antitrust relevant market, they argue that such occupations may constitute a reasonable and perhaps conservative presumptive definition of a relevant labor market insofar as SOC-based measurements may underestimate labor-market concentration. They note further that no-poaching agreements between horizontal rivals can serve as direct evidence of market power that obviates the need for market definition. And they note that vertical non-compete agreements between employers and employees can have horizontal effects if multiple employers in a labor market use them, and that such effects could be relevant to merger analysis as an exacerbating factor in assessing potential competitive harm.

The authors conclude with a discussion of claimed efficiencies defenses. They note that purchasing discounts and economies of scale are likely absent in the hiring context. And any existing, cognizable efficiencies will not offset a merger’s anticompetitive labor-market effects unless the post-merger reorganization would decrease the need for workers without also lowering total production output. They also opine that the consumer welfare standard is fully capable of adequately addressing monopsony cases, because the standard would ignore tradeoffs among product market and labor market effects, subject only to the Guidelines caveat about inextricably linked and disproportionate effects.

Ultimately, the authors believe mergers affecting the labor market require some rethinking of merger policy but not any altering of its fundamentals. They do not recommend any significant changes in the economic analysis currently applied to mergers.


Krueger & Posner propose to go beyond existing levels of antitrust intervention to combat the problem of monopsonization and collusion in labor markets. Mindful that antitrust conduct cases are brought on an ad hoc basis and are subject to limitations associated with difficult burdens of proof, high costs, and resource constraints, they propose three reforms. First, they argue that the Horizontal Merger Guidelines should be revised to explicitly account for the omission of mergers that enhance market power in labor markets, as opposed to other input markets. To that end, they also recommend expanding the resources of the Antitrust Division, with special attention to allowing the Division to hire labor-market economists.

Second, Krueger & Posner encourage states to pass laws, modeled on an Illinois law, that flatly ban non-competes for workers earning less than $13 per hour. They believe non-competes should be uniformly unenforceable and banned if they govern a worker who earns less than the median wage in her state. Moreover, they encourage states to pass laws that require firms to delete non-competes from employment contracts where they are legally unenforceable, under threat of penalty for

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36 See Horizontal Merger Guidelines, supra note 34, § 4.
37 See id. § 12 (discussing reduced transaction costs, volume discounts, and scale economies in mergers of competing buyers).
38 The Horizontal Merger Guidelines provide that the agencies will challenge a merger that is anticompetitive in any relevant market, without regard to efficiencies in a different relevant market. The one caveat is that they may consider out-of-market efficiencies that are inextricably linked with the relevant market when the efficiencies are great and the likely anticompetitive effect in the relevant market is small. Id. § 10, at 30, n.14.
misleading workers into believing they are bound by a non-compete. Finally, they propose a per se rule against no-poaching agreements regardless of context, including specifically with regard to the use of no-poaching provisions in franchise agreements.


Building on previous work that defined relevant antitrust labor markets using 6-digit SOC codes and USDA commuting zones, Azar, Marinescu, Steinbaum and Taska set out to systematically measure labor market concentration in the United States. Among other things, the authors provide a detailed discussion of market definition in the labor-market context, including with respect to the “smallest market principle” discussed in the Commentary to the Horizontal Merger Guidelines. For purposes of applying a Hypothetical Monopsonist Test (HMT), they assume a candidate market is too broad if the actual labor demand elasticity is less than the “critical elasticity.” Critical elasticity analysis, akin to critical loss analysis in product markets, identifies the point at which it becomes unprofitable for a hypothetical monopsonist employer to decrease wages by five percent. The authors explain that a candidate market is too broad if the actual labor demand elasticity is less than the critical elasticity.

They note that, within a 6-digit SOC, the wage elasticity of job applications is negative, and thus the 6-digit SOC is typically too broad a candidate market for purposes of applying the SSNRW test. However, the elasticity of labor supply measured according to job titles (as opposed to vacancies), and even measured at the individual firm level, is positive, suggesting that each of these could be viable antitrust candidate markets. Although the authors believe that measuring HHIs according to job titles is likely most accurate for purposes of applying the HMT, they opt to rely on the 6-digit SOC codes as a conservative baseline.

Using a dataset covering the near-universe of online U.S. vacancy postings in 2016, the authors show, among other things, that the average HHI in labor markets defined according to their baseline 6-digit SOC codes is almost 4,000, and a majority (54%) of such markets are highly concentrated under the thresholds established in the Horizontal Merger Guidelines. Measured according to standardized job titles, rather than 6-digit SOC codes, 72% of labor markets are highly concentrated under the Guidelines. The authors conclude that the evidence suggests employers have market power in many U.S. labor markets, that the anticompetitive effects of this power could be important, and that analyses like theirs can be used to incorporate labor market concentration concerns as a factor in merger review.


Naidu, Posner and Weyl provide a comprehensive treatment of the economics, law, and policy of antitrust and labor-market power. They seek to diagnose the causes of past inattention to labor-

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market effects by antitrust enforcers and propose analytic methods for evaluating labor-market power in antitrust contexts going forward. They focus primarily on mergers but give attention to conduct offenses as well. They define labor-market power as a single or small number of employers hiring from a pool of workers of a certain skill level within the geographic area in which workers commute.

The authors posit that past inattention to labor-market power may be attributable to a variety of causes. One possible cause is a laser-like focus on consumer welfare, which may have led to a natural shift favoring product-market analysis over labor-market analysis. A second possible cause is deference to economic assumptions that labor markets are reasonably competitive, which have been cast into doubt only recently. A third possible cause is an unspoken legal assumption that traditional approaches to protecting workers “outside” antitrust law (via labor and employment law) were sufficient. A fourth possible cause is the comparative difficulty of using private antitrust litigation to challenge labor-market restraints relative to product-market restraints, because, among other reasons, worker class actions are more difficult to certify under Rule 23 for want of commonality.

Because the consensus around the competitiveness of labor markets has been thrown into doubt, and in light of empirical evidence of pervasive concentration and monopsonistic practices (such as unjustified no-poaching and non-compete provisions in employment agreements), the authors propose a variety of new approaches. They call upon the federal antitrust agencies to update the Horizontal Merger Guidelines to provide a detailed framework for evaluating the effects of a merger on labor markets. Specifically, they suggest the agencies should consider coordinated and unilateral effects theories much as they do in product markets. Enforcers would either define labor markets and measure concentration to employ a structural presumption, or they would calculate Downward Wage Pressure to measure the tendency of workers to quit one merging firm as a result of an incremental decrease in wages to join the other merging firm. Where appropriate, the authors suggest this analysis should precipitate a more fulsome merger simulation to ascertain labor-market effects.

The authors also recommend similar application of product-market antitrust concepts to labor markets in the context of covenants not to compete (analogous to exclusive dealing), suppressed supplier wages dictated by powerful buyers (analogous to resale price maintenance), predatory hiring (analogous to predatory pricing), and with respect to vertical foreclosure.

The authors conclude that the economic analysis of product markets regularly deployed in the scrutiny of mergers can easily be applied to the labor market. They note further that more severe corrective action may be necessary given the highly concentrated state of labor markets. They believe antitrust investigators may need to consider whether some firms have achieved such powerful monopsonies that they should be broken up.


Steinbaum argues that there is direct and indirect evidence that employer market power is a missing link in the way we understand and explain today’s “high-profit, low-wage economy.” After reviewing evidence of increased concentration in the economy and its effects in labor markets (and beyond), he argues that federal antitrust law has been inadequately applied and that incremental steps toward course correction are insufficient.
First, Steinbaum argues that current merger review is inadequate and incomplete because it fails on a number of fronts. For example, it fails to include economic analysis of competitive effects in labor markets, fails to adequately account for the industry-wide effects of concentration, and fails to distinguish among economic differences between wage-setting in labor markets and price-setting in product markets. Second, he argues that enforcers have been inattentive to monopsony owing in part to the consumer welfare standard and an enforcement paradigm that inappropriately prioritizes efficiency over structural conditions in the economy. Third, he argues that Supreme Court decisions enshrining a permissive approach toward vertical restraints, conscious parallelism, and employer mandatory arbitration provisions have facilitated employer exploitation of market power.

In response, Steinbaum advocates for an aggressive, multi-pronged agenda to prevent further harms. He calls for (1) expanding merger review to include analyses of merger effects in labor markets; (2) improved resources for federal antitrust agencies, including access to labor-market datasets maintained by other federal agencies and the ability to supplement existing staff with labor economists; (3) amending federal antitrust statutes to expressly specify that they reach monopsony; and (4) banning non-compete agreements, no-poaching agreements, mandatory arbitration in employment contracts, and other similar competitive restraints in the labor market.

**ANALYSIS: EMERGING THEMES AND QUESTIONS FROM THE LITERATURE**

The previous section at best provides only a partial snapshot of a rapid evolutionary process. New information and fresh insights into the role of antitrust law in protecting and promoting the competitiveness of U.S. labor markets are sure to emerge. Nevertheless, it is already very clear that antitrust enforcers and practitioners need to be paying closer attention.

The remainder of this paper explores how to transform new information and insights from the recent literature into actual antitrust enforcement. It identifies emerging themes from the literature and assesses the forthcoming challenges for antitrust practitioners. It concludes with recommendations for policymakers and enforcers.

**I. Mergers**

For antitrust advocates, perhaps the most intriguing theme in the literature is the chorus of calls for enforcers to account for labor-market effects in merger analysis under Section 7 of the Clayton Act. Several of the articles help lay the foundation for this accounting, beginning with analytical concepts that mirror product-market merger concepts. Examples include the “hypothetical monopsonist test,” a “SSNRW,” “critical labor-demand elasticity,” and “downward wage pressure.” However, it remains to be seen how neatly these mirroring concepts map onto live litigation fact patterns, which can get messy. These concepts have not yet been applied and tested against actual mergers that threaten (or, if already consummated, have had) anticompetitive labor-market effects.

**A. Measuring and Predicting Substitution**

One important question is how to incorporate the unique characteristics of labor markets into supply-side and demand-side substitution analysis, which are key determinants of market definition
and competitive effects analysis, respectively. In general, substitution analysis will be complicated by the bilateral nature of employment transactions, which often involve “two-sided matching.” In an ordinary retail transaction, for example, a consumer can typically choose to buy the same product on better terms at a different store, and the seller is often indifferent to the personal characteristics of the customer (other than ability to pay). But in the employment context, a worker requires a job offer before she can sell the same labor on better terms to a different employer, and the employer usually cares very much about the personal characteristics of her employees. Two-sided matching thus complicates substitution analysis.

On the supply side, “frictions” in labor markets may pose novel analytical challenges for market-definition in particular. The process of evaluating employees’ ability to discipline a hypothetical monopsonist by switching jobs seems apt to be far more complex and idiosyncratic than the process of evaluating customers’ ability to discipline a hypothetical monopolist by switching to other goods, services, or suppliers of other inputs. For example, some employees with medical complications, who are dependent on employer health insurance, may be constrained in switching jobs even when another viable employer offers otherwise superior wage and non-wage terms of employment.

If “frictions” and “two-sided matching” in labor markets significantly limit the ambit of a given worker’s substitutable job opportunities, then this suggests the creative approach by Azar et al. of defining markets using SOC codes and USDA commuting data, as the authors note, yield overly broad candidate markets. Of course, actual relevant antitrust labor markets could be still broader than these markets, or they could be significantly narrower (as we might suspect). The BLS SOC classifications are not designed, and cannot be presumed, to tell us anything instructive about

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40 In seller-power cases, market-definition focuses solely on demand substitution factors, and supply-side substitution comes into play in the identification of market participants, the measurement of market shares, and the analysis of competitive effects and entry. Horizontal Merger Guidelines, supra note 34, § 4; see Jonathan Baker, Market Definition: An Analytical Overview, 74 Antitrust L.J. 129, 132-138 (2007). However, in buyer-power cases, this analysis is reversed. Id. § 12; Baker, supra, at 133, n.26. Thus, a relevant labor market should be defined according to the affected employees’ ability to defeat a wage decrease by switching employers. The behavior of rival employers in response to a SSNRW would come into play in identifying buyer-participants in the relevant labor market, measuring shares in that market, and analyzing competitive effects and entry.

41 Alvin E. Roth & Marilda Sotomayor, Two-Sided Matching 486-492, in Handbook of Game Theory Vol. I (1992) (describing labor markets that function as “two-sided matching markets” in which “any pair of agents on opposite sides of the market may be matched to one another if they both agree, and any agent is free to remain unmatched”).

42 The Supreme Court recently held in Ohio v. American Express that, in rule-of-reason conduct cases that involve “two-sided transaction platforms, like the credit card market,” where the “platforms facilitate a single, simultaneous transaction between participants” and “exhibit more pronounced indirect network effects and interconnected pricing and demand,” only one market for “transactions” should be defined. ___ U.S. ___, 2018 WL 3096305, at *10-15 (2018). It is unlikely that the decision has any relevance for the analysis of the labor-market effects of mergers, except perhaps by extension when the merging parties operate a platform, such as Uber, that matches workers with consumers in particular transactions.

43 Cf. Herbert J. Hovenkamp, Is Antitrust’s Consumer Welfare Standard Imperiled? (Penn Law: Legal Scholarship Repository, Faculty Scholarship, June 2018) (noting that competitive effects analysis in labor markets may present “very significant measurement problems” that are “more empirical than conceptual”).

44 See White House Counsel of Economic Advisors, supra note 21, at 6-7 (discussing “job lock” arising from employer provided health insurance). Other labor-market frictions that may have important implications for market definition include the costs of moving, commuting, and searching for another job and the restrictions created by occupational licensing laws and land-use policies. Id. at 5-7; Jason Furman, Chairman, Council of Economic Advisers, Beyond Antitrust: The Role of Competition Policy in Promoting Inclusive Growth 13, Remarks prepared for the Searle Center Conference on Antitrust Economics and Competition Policy (Sept. 16, 2016).
the firms that compete to hire a given set of workers. Or, put another way, they do not necessarily denote a “competitive arena within which significant anticompetitive effects are possible.” But the fact that a majority of such seemingly broad markets are highly concentrated, and that increased concentration in these markets corresponds with harmful wage effects, foreshadows the serious risks of further inattention to labor-market competition in merger analysis and otherwise.

In some instances, direct evidence of anticompetitive effects can serve as a “work-around” to market-definition challenges. It is well accepted that direct proof of market power through effects evidence is superior to, and obviates the need for, indirect proof of market power through market definition. And as Marinescu & Hovenkamp note, a no-poaching agreement between firms would be strong direct evidence of labor-market power.

Policing mergers among labor-market rivals who have previously been parties to a no-poaching agreement therefore may be a good place to begin enforcement. Indeed, the recently revealed no-poaching agreement between rail equipment suppliers, which has the ignominious distinction of being the first naked no-poaching case to settle following publication of the antitrust agencies’ HR Guidance, as well as the first post-Guidance case to be the subject of a follow-on private action, was discovered during a merger review involving two members of the conspiracy. The DOJ should consider whether that now-consummated merger should be subject to retroactive challenge under Section 7 for tending to substantially lessen buyer competition in the labor market.

B. Subject Matter Jurisdiction and Efficiency Defenses

Another consideration is that we have yet to see whether merging parties will raise any novel defenses against merger challenges predicated on labor-market effects. Arguments that a merger’s labor-market effects are beyond the subject matter jurisdiction of the antitrust laws, whether because they do not translate to downstream product-market effects or because labor is not “commerce,” are meritless for the reasons explained in the Background section of this paper. Moreover, the Horizontal Merger Guidelines already preempt these defenses, because the Guidelines explicitly provide that mergers illegally enhance buyer power if they cause a transfer of wealth from small producers to large purchasers and inefficiently reduce supply, “even if the merger will not lead to any increase in the price charged by the merged firm for its output.” Nevertheless, merging parties can be expected to pursue these arguments in the hope of finding the occasional sympathetic ear, and it is important that courts understand why they are erroneous and reject them.

46 But see Josh Bivens, Lawrence Mishel & John Schmitt, It’s not just monopoly and monopsony: How market power has affected American wages, Econ Pol’y Inst. (April 2018) (questioning whether “trends in market concentration have been a dominant driver of the most significant trends in American wages in recent years” and hypothesizing that “other models and concepts of power in labor markets” better explain these trends).
49 See supra Background, Part II; notes 4-12 and accompanying text.
50 Horizontal Merger Guidelines, supra note 34, § 12 (example 24).
51 See, e.g., United States v. Anthem, Inc., 855 F.3d 345 (D.C. Cir. 2017) (Kavanaugh, J., dissenting) (suggesting that mergers that lead to monopsony should be illegal because of their downstream effects); cf. Taterka v. Wisconsin Tel. Co.
Of course, merging parties may separately try to argue that increased bargaining leverage that reduces the upstream cost of labor inputs constitutes a merger “efficiency.” However, the exploitation of market power upstream is not a cognizable efficiency. And this is true even if cost reductions are passed on to consumers, which is the exception rather than the rule. Moreover, crediting exploitative wage reductions as a merger efficiency would be contrary to labor policy, and refusing to do so would be consistent with the Clayton Act’s pronouncement that “the labor of a human being is not an article of commerce,” for the same reason that shielding employer restraints outside the collective-bargaining context is not consistent with that pronouncement.

C. Remedies

Finally, it remains to be seen how enforcers and parties will address the question of remedy. Divestitures in mergers that threaten only anticompetitive labor-market effects may be more difficult to negotiate than in mergers that threaten anticompetitive product-market effects, because the necessary labor-market divestitures in any given transaction may undermine, or alter in unexpected ways, the business rationale for the merger. This is because merging parties that compete as buyers in labor markets may not compete as sellers in any downstream relevant product market at all. Or, merging parties may compete in an unconcentrated, national geographic market on the product side but a concentrated, local geographic market on the labor side. Although these scenarios may raise policy questions, they should not be a barrier to enforcement because the Merger Guidelines recognize that “out-of-market” efficiencies cannot save an anticompetitive merger, except in rare circumstances.

While there are no obvious obstacles to using behavioral remedies as an alternative to structural remedies in labor-market cases, such remedies generally tend to fail in resolving the competitive problems caused by a merger. And many of the criticisms of behavioral remedies applied to product markets appear to also apply in the labor-market context. Enforcers should keep an open mind, however, and perhaps explore hybrid structural-behavioral remedies that, where

394 F. Supp. 862, 865 (E.D. Wisc. 1975) (holding that trade or commerce was not affected as a matter of law where a telephone switchman alleged a no-hiring agreement between the Bell system companies); but see Areeda & Hovenkamp, supra note 3, ¶ 257a, at 227 (explaining why this was not correct and noting that complaint was deficient on other grounds).

52 Anthem, 855 F.3d at 362-63; Horizontal Merger Guidelines, supra note 34, § 10.

53 See Devlin, supra note 5, at 224 (“economics can show that such cost-reductions will rarely be passed onto consumers”); Roger Noll, “Buyer Power” and Economic Policy, 72 Antitrust L.J. 589, 596, 606-612 (2005).

54 See supra notes 8-11 and accompanying text (discussing labor exemption as a “one-way street”).


56 See supra note 37 (discussing inextricably linked out-of-market efficiencies).


58 See id.; Makan Delrahim, Asst. Att’y Gen., Antitrust Div., Dept. of Justice, Keynote Address at American Bar Association’s Antitrust Fall Forum (Nov. 16, 2007) (explaining philosophical opposition to behavioral remedies on grounds that they contravene antitrust’s “fundamental choice in the relationship between government and the economy”).
circumstances allow, draw upon the benefits of labor law, such as requiring the merged firm to recognize a union and participate in collective bargaining as a condition of clearance. But if divestiture remedies prove too difficult and behavioral or hybrid remedies too ineffective, it may be that mergers threatening anticompetitive labor-market effects will have to be altogether blocked rather than cured more often than mergers threatening anticompetitive product-market effects.

II. No-Poach Agreements

Another theme in the literature is that employer collusion via no-poaching agreements is an empirically serious problem that is causing significant harm to workers. Naked, horizontal no-poaching agreements between rival firms present an open-and-shut antitrust case. The Antitrust Division can prosecute them criminally and invoke the per se rule, and private class actions, provided they survive preliminary motions practice and class certification, can afford victim compensation and deterrence.

In the long run, the DOJ’s and FTC’s mere act of issuing HR Guidance could have enormous salutary benefits in curbing naked no-poaching agreements simply by putting the human resources community on notice as to what’s at stake and helping to activate state and private enforcers. In the short run, it is important that the DOJ stand by its commitment to criminally prosecute companies and individuals who participate in such agreements, and that state and private enforcers bring civil cases, in order to strengthen deterrence and compensate the injured.

Krueger & Ashenfelter’s finding that 58% of major franchise chains include no-poaching agreements in franchisor/franchisee contracts poses a more difficult challenge. First, franchisor/franchisee no-poaching agreements are vertical, and they would thus have to be construed as a hub-and-spoke conspiracy to earn per se treatment in court. Second, defendants can try to argue that the restraints are ancillary to a legitimate integration, and hence procompetitive.

When dominant franchisors establish no-poaching commitments from franchisees throughout an industry, these vertical agreements have the potential for substantial, harmful, horizontal effects. At the same time, when no-poach franchise agreements cover low-skilled, low-wage workers in high-turnover industries, and when they are nonetheless imposed in states that do not enforce them based on equitable contract principles, it seems especially dubious that they are motivated by (or have) any efficiency enhancing characteristics. However, unless the arrangement amounts to a hub-and-spoke conspiracy, an antitrust challenge likely would have to be won under the rule of reason, which is notoriously difficult for plaintiffs. Moreover, franchises could plausibly pursue a strategy of conscious parallelism, in which they mutually, but unilaterally, choose not to hire another firm’s employees without any express or tacit agreement, which is not prosecutable.

59 But see John M. Talladay & Vishal Mehta, Criminalization of wage-fixing and no-poaching agreements, Comp. Pol’y Int’l (June 2017) (arguing that DOJ is unjustified in invoking the per se rule and pursuing criminal charges for naked wage-fixing and no-poaching agreements).

Therefore, in the short run, state or federal legislative solutions, such as the blanket bans proposed by Krueger & Ashenfelter and Starr et al., may be a superior competition policy tool to antitrust suits. Negotiated voluntary commitments, like those recently achieved by Washington Attorney General Bob Ferguson, who was able to extract commitments from seven fast-food chains to discontinue no-poaching policies without protracted litigation, also can be beneficial.61 Still, individual ad hoc agreements will not provide uniformity across industries. And insofar as the franchises get off the hook without any penalty, such commitments do not appear to provide substantial deterrence or compensation.

III. Non-Compete Agreements

Unlike no-poaching or wage-fixing agreements, traditional non-compete agreements (between employers and employees) have rarely amounted to antitrust violations in the past. They are likewise vertical, and employers typically defend them as ancillary and efficiency enhancing. They often cite (1) the protection of trade secrets, customer relationships and goodwill, (2) promotion of investment in employee training and education, and (3) protection against the business risk posed by a high-skilled employee’s unique knowledge. Moreover, it is unlikely on average that a non-compete agreement between an employer and a single employee may pose a demonstrable threat to market-wide competition.

However, the pervasive use of non-compete agreements in concentrated labor markets, particularly where they are imposed upon low-skill, low-wage workers who lack alternatives, should cast these agreements in an entirely new competitive light. But again, given the practical difficulty of prosecuting antitrust rule-of-reason cases against vertical and putatively ancillary agreements, legislative or other contract-based solutions may be the superior short-run competition policy response, as the literature seems to recognize.62

IV. Adapting the Administration of the Antitrust Laws to Buyer Competition in Labor Markets

Another clear theme to emerge from the literature is the need for the federal antitrust agencies to assume a leadership role in policing employer restraints that have anticompetitive labor-market effects. There is widespread agreement among authors, for example, that the FTC and DOJ should hire labor economists, and that Congress should increase the resources available to the agencies accordingly. This would be an unmitigated good and serve as a necessary and appropriate first step.

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61 See Gene Johnson, 7 fast-food chains agree to end ‘no-poaching’ policies, Wash. Post (July 12, 2018).
62 Although not discussed in depth in the new labor-antitrust literature, firms also sometimes enter into temporary non-compete agreements with each other (as opposed to with employees) that may include employment-related components. In particular, in crafting merger and joint venture agreements, firms may include a non-solicitation provision to protect against, for example, the putative merger or venture partner learning about and targeting key employees during the due diligence process. And in franchise contracts, the franchisor may extract a commitment from the franchisee-owner not to open or work for a rival franchise if the franchise contract terminates. Although horizontal, these agreements have historically been upheld as ancillary if they are reasonable in length and scope. See, e.g., Eichorn v. AT&T Corp., 248 F.3d 131, 146 (3d Cir. 2001) (primary purpose of no-hire agreement was to facilitate business sale and eight-month restriction on re-employment with seller’s affiliates was reasonable); Dep’t of Justice Antitrust Div. & Fed. Trade Comm’n, Antitrust Guidance for Human Resource Professionals, supra note 26, at 3 (discussing legitimate joint ventures).
Another common refrain in the literature is that the agencies should revise the Horizontal Merger Guidelines to explicitly incorporate labor-market effects in merger analysis. However, insofar as a merger has never before been challenged on the basis of labor-market effects, revising the Guidelines may be putting the cart before the horse. Notwithstanding their persuasive precedential value in court, “The Guidelines serve the important purpose of providing broad transparency to businesses and the antitrust bar as to how the Agencies approach merger review.” In other words, they are intended to be not only prescriptive but descriptive of the agencies’ actual (as opposed to aspirational) enforcement intentions and capabilities.

To be sure, once the agencies are sufficiently armed with the legal and economic tools needed to start bringing labor-market merger cases, a Guidelines update will be necessary. But in the meantime, perhaps the DOJ’s Economic Analysis Group (EAG) and the FTC’s Bureau of Economics could advance the cause by allocating resources to produce an Economic Report, Issue Paper, Working Paper, or Discussion Paper exploring the institutional steps necessary to quickly and effectively ramp up enforcement to protect labor-market competition (in merger review and otherwise). The FTC Office of Policy Planning should also consider a workshop and report.

Finally, there is disagreement in the literature as to whether the agencies are capable of effectively enforcing the antitrust laws against employer-based labor-market restraints under the consumer welfare standard. To be sure, the emerging evidence of substantial increases in labor-market concentration, coupled with near-complete inattention to labor-market effects in merger analysis historically, helps validate the progressive critique of conservative antitrust policy as too myopic. But AAI believes the solution lies in reversing an era’s worth of the consumer welfare standard’s misapplication under this policy, not in changing the goals of antitrust law.

CONCLUSION

Many antitrust experts feel strongly that so-called “non-competition” factors must not be factored into antitrust analysis. But there should be no serious doubt as to the propriety of enforcing the existing laws under the existing framework against mergers and conduct that harm buyer competition for workers. This is unquestionably a “competition issue.”

If anything, antitrust enforcement against anticompetitive employer restraints in labor markets may be uniquely valuable insofar as it is synergistic. It can serve the goals of competition and labor policy in a single stroke, and thereby afford added societal value in an era when both policies are badly in need of a boost.

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65 See Naidu et al., supra note 21, at 5 (discussing importance of antitrust protections in light of erosion of labor and employment protections); cf. Jonathan B. Baker & Steven C. Salop, Antitrust, Competition Policy, and Inequality, 104 Georgetown L.J. Online 1, 19 (2015) (noting that antitrust agencies can combat wealth inequality in society by exercising prosecutorial discretion to focus enforcement on monopsony power exercised against workers and small businesses).
AAI believes the time has come for the antitrust community to ramp up its attention to employer
mergers and conduct that have anticompetitive labor-market effects. We make the following
recommendations:

- Before real progress can be made in policing mergers on the basis of anticompetitive
  labor-market effects, practitioners of antitrust merger law – including antitrust
  lawyers and economists – must begin to identify and resolve the practical challenges
  associated with litigating and remedying actual merger fact patterns.

- If enforcers are not yet able to adequately measure and predict employee substitution
  in labor markets, enforcers may wish to begin by focusing on employer mergers
  among labor-market rivals which have previously been parties to a no-poaching
  agreement, or where there is other direct evidence that a transaction threatens to
  create or enhance buyer labor-market power.

- Although the Clayton Act declares that “the labor of a human being is not a
  commodity or article of commerce,” this language is designed to protect worker
  restraints, not employer restraints. Enforcers should not be concerned that the labor
  exemption or the “affecting commerce” requirement prevent merger enforcement on
  the basis of anticompetitive labor-market effects, notwithstanding an absence of, or
  inability to prove, downstream product-market harms.

- The Antitrust Division should continue to aggressively pursue criminal prosecutions
  to deter naked no-poaching and wage-fixing agreements, and the plaintiffs’ antitrust
  bar and state attorneys’ general should continue to seek deterrence and
  compensation for victims through investigations and civil suits, including treble
  damages class actions.

- Given the practical difficulties of challenging vertical and putatively ancillary no-
  poaching and employee non-compete agreements, policy advocates should support
  state or federal legislative reform as a matter of sound competition policy,
  particularly when such agreements are imposed on low-skill, low-wage workers in
  concentrated, high-turnover industries.

- The FTC and DOJ should hire in-house labor economists, and Congress should
  increase the resources available to the agencies accordingly.

- The agencies should assimilate the new labor-antitrust literature, conduct their own
  policy studies on the connection between labor and product market concentration
  and wages, and update the Horizontal Merger Guidelines once they are
  institutionally prepared to police mergers on the basis of threatened anticompetitive
  labor-market effects.

- Effective policing of mergers and conduct on the basis of anticompetitive labor-
  market effects does not require legislative reform or eliminating the consumer
  welfare standard.
Amazon’s Antitrust Paradox

ABSTRACT. Amazon is the titan of twenty-first century commerce. In addition to being a retailer, it is now a marketing platform, a delivery and logistics network, a payment service, a credit lender, an auction house, a major book publisher, a producer of television and films, a fashion designer, a hardware manufacturer, and a leading host of cloud server space. Although Amazon has clocked staggering growth, it generates meager profits, choosing to price below-cost and expand widely instead. Through this strategy, the company has positioned itself at the center of e-commerce and now serves as essential infrastructure for a host of other businesses that depend upon it. Elements of the firm’s structure and conduct pose anticompetitive concerns—yet it has escaped antitrust scrutiny.

This Note argues that the current framework in antitrust—specifically its pegging competition to “consumer welfare,” defined as short-term price effects—is unequipped to capture the architecture of market power in the modern economy. We cannot cognize the potential harms to competition posed by Amazon’s dominance if we measure competition primarily through price and output. Specifically, current doctrine underappreciates the risk of predatory pricing and how integration across distinct business lines may prove anticompetitive. These concerns are heightened in the context of online platforms for two reasons. First, the economics of platform markets create incentives for a company to pursue growth over profits, a strategy that investors have rewarded. Under these conditions, predatory pricing becomes highly rational—even as existing doctrine treats it as irrational and therefore implausible. Second, because online platforms serve as critical intermediaries, integrating across business lines positions these platforms to control the essential infrastructure on which their rivals depend. This dual role also enables a platform to exploit information collected on companies using its services to undermine them as competitors.

This Note maps out facets of Amazon’s dominance. Doing so enables us to make sense of its business strategy, illuminates anticompetitive aspects of Amazon’s structure and conduct, and underscores deficiencies in current doctrine. The Note closes by considering two potential regimes for addressing Amazon’s power: restoring traditional antitrust and competition policy principles or applying common carrier obligations and duties.

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“Even as Amazon became one of the largest retailers in the country, it never seemed interested in charging enough to make a profit. Customers celebrated and the competition languished.”
—THE NEW YORK TIMES

“[O]ne of Mr. Rockefeller’s most impressive characteristics is patience.”
—IDA TARBELL, A HISTORY OF THE STANDARD OIL COMPANY

INTRODUCTION

In Amazon’s early years, a running joke among Wall Street analysts was that CEO Jeff Bezos was building a house of cards. Entering its sixth year in 2000, the company had yet to crack a profit and was mounting millions of dollars in continuous losses, each quarter’s larger than the last. Nevertheless, a segment of shareholders believed that by dumping money into advertising and steep discounts, Amazon was making a sound investment that would yield returns once e-commerce took off. Each quarter the company would report losses, and its stock price would rise. One news site captured the split sentiment by asking, “Amazon: Ponzi Scheme or Wal-Mart of the Web?”

Sixteen years on, nobody seriously doubts that Amazon is anything but the titan of twenty-first century commerce. In 2015, it earned $107 billion in revenue, and, as of 2013, it sold more than its next twelve online competitors combined. By some estimates, Amazon now captures 46% of online shopping,
with its share growing faster than the sector as a whole.\(^6\) In addition to being a retailer, it is a marketing platform, a delivery and logistics network, a payment service, a credit lender, an auction house, a major book publisher, a producer of television and films, a fashion designer, a hardware manufacturer, and a leading provider of cloud server space and computing power. Although Amazon has clocked staggering growth—reporting double-digit increases in net sales yearly—it reports meager profits, choosing to invest aggressively instead. The company listed consistent losses for the first seven years it was in business, with debts of $2 billion.\(^7\) While it exits the red more regularly now,\(^8\) negative returns are still common. The company reported losses in two of the last five years, for example, and its highest yearly net income was still less than 1% of its net sales.\(^9\)

Despite the company’s history of thin returns, investors have zealously backed it: Amazon’s shares trade at over 900 times diluted earnings, making it the most expensive stock in the Standard & Poor’s 500.\(^10\) As one reporter marveled, “The company barely ekes out a profit, spends a fortune on expansion and free shipping and is famously opaque about its business operations. Yet in-

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8. Partly due to the success of Amazon Web Services, Amazon has recently begun reporting consistent profits. See Nick Wingfield, *Amazon’s Cloud Business Lifts Its Profit to a Record*, N.Y. TIMES (Apr. 28, 2016), http://www.nytimes.com/2016/04/29/technology/amazon-q1-earnings.html [http://perma.cc/ZHL6-JEZU]. Though this trend departs from the history on which I focus, my analysis stands given that I am interested in (1) the losses Amazon formerly undertook to establish dominant positions in certain sectors, (2) the investor backing and enthusiasm that Amazon consistently maintained despite these losses, and (3) whether these facts challenge the assumption—embedded in current doctrine—that losing money is only desirable (and hence rational) if followed by recoupment. See id. (“Amazon often flip-flops between showing profits and losses, depending on how aggressively it decides to plow money into big new business bets. Investors have granted the company much wider leeway to do so than other technology companies of its size often receive, because of its history of delivering outsized growth.”); see also infra Part III.


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vestors . . . pour into the stock.” 11 Another commented that Amazon is in “a class of its own when it comes to valuation.” 12

Reporters and financial analysts continue to speculate about when and how Amazon’s deep investments and steep losses will pay off. 13 Customers, meanwhile, universally seem to love the company. Close to half of all online buyers go directly to Amazon first to search for products, 14 and in 2016, the Reputation Institute named the firm the “most reputable company in America” for the third year running. 15 In recent years, journalists have exposed the aggressive business tactics Amazon employs. For instance Amazon named one campaign “The Gazelle Project,” a strategy whereby Amazon would approach small publishers “the way a cheetah would a sickly gazelle.” 16 This, as well as other re-

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12. Krantz, supra note 10 (“Amazon’s [price/earnings ratio] isn’t just high relative to the market—but the stock is richly valued even if the company achieves the high expectations investors have. Amazon’s [price/earnings ratio] is now 14 times higher than the astounding 67% annual growth analysts expect long term from the company. That’s an off-the-charts valuation using traditional rules of thumb. Investors start to think a stock is pricey when its [price/earnings ratio] is just 2 times its expected growth rate.”).

13. See, e.g., Farhad Manjoo, How Amazon’s Long Game Yielded a Retail Juggernaut, N.Y. TIMES (Nov. 18, 2015), http://www.nytimes.com/2015/11/19/technology/how-amazons-long-game-yielded-a-retail-juggernaut.html [http://perma.cc/62WG-KQ67] (“For years, observers have wondered if Amazon’s shopping business—you know, its main business—could ever really work. Investors gave Mr. Bezos enormous leeway to spend billions building out a distribution-center infrastructure, but it remained a semi-open question if the scale and pace of investments would ever pay off. Could this company ever make a whole lot of money selling so much for so little?”).


porting,\textsuperscript{17} drew widespread attention,\textsuperscript{18} perhaps because it offered a glimpse at the potential social costs of Amazon's dominance. The firm's highly public dispute with Hachette in 2014—in which Amazon delisted the publisher's books from its website during business negotiations—similarly generated extensive press scrutiny and dialogue.\textsuperscript{19} More generally, there is growing public awareness that Amazon has established itself as an essential part of the internet economy,\textsuperscript{20} and a gnawing sense that its dominance—its sheer scale and breadth—may pose hazards.\textsuperscript{21} But when pressed on why, critics often fumble to explain


\textsuperscript{18} David Streitfeld, supra note 16.


\textsuperscript{20} See Farhad Manjoo, \textit{Tech's 'Frightful 5' Will Dominate Digital Life for Foreseeable Future}, \textit{N.Y. Times} (Jan. 20, 2016), http://www.nytimes.com/2016/01/21/technology/techs-frightful-5-will-dominate-digital-life-for-foreseeable-future.html [http://perma.cc/YH6N-KG6] (“By just about every measure worth collecting, these five American consumer technology companies [Amazon, Apple, Facebook, Google, and Microsoft] are getting larger, more entrenched in their own sectors, more powerful in new sectors and better insulated against surprising competition from upstarts. Though competition between the five remains fierce—and each year, a few of them seem up and a few down—it’s becoming harder to picture how any one of them, let alone two or three, may cede their growing clout in every aspect of American business and society.”); Brooke Masters, \textit{Hooked on a Feeling that Amazon Is Too Addictive by Far}, \textit{Fin. Times} (Mar. 11, 2016), http://www.ft.com/intl/cms/s/0/dd2d3f76-c768-11e5-bc31-138d22a09ec6.html [http://perma.cc/X25D-6NTS].

\textsuperscript{21} At a recent hearing held by the Senate Judiciary Committee's Subcommittee on Antitrust, Competition Policy, and Consumer Rights, both Republican and Democratic senators interrogated Assistant Attorney General for Antitrust Bill Baer and Federal Trade Commission (FTC) Chair Edith Ramirez about their treatment of online platforms, and urged the Department of Justice (DOJ) and FTC to study closely the anticompetitive hazards these dominant firms may pose. See \textit{Oversight of the Enforcement of the Antitrust Laws: Hearing Before the Subcomm. on Antitrust, Competition Policy & Consumer Rights of the S. Comm. on the Judiciary, 114th Cong. (2016); see also Oversight of the Antitrust Enforcement Agencies: Hearing Before the
how a company that has so clearly delivered enormous benefits to consumers—not to mention revolutionized e-commerce in general—could, at the end of the day, threaten our markets. Trying to make sense of the contradiction, one journalist noted that the critics’ argument seems to be that “even though Amazon’s activities tend to reduce book prices, which is considered good for consumers, they ultimately hurt consumers.”

In some ways, the story of Amazon’s sustained and growing dominance is also the story of changes in our antitrust laws. Due to a change in legal thinking and practice in the 1970s and 1980s, antitrust law now assesses competition largely with an eye to the short-term interests of consumers, not producers or the health of the market as a whole; antitrust doctrine views low consumer prices, alone, to be evidence of sound competition. By this measure, Amazon has excelled; it has evaded government scrutiny in part through fervently devoting its business strategy and rhetoric to reducing prices for consumers. Amazon’s closest encounter with antitrust authorities was when the Justice Department sued other companies for teaming up against Amazon. It is as if Bezos charted the company’s growth by first drawing a map of antitrust laws, and then devising routes to smoothly bypass them. With its missionary zeal for consumers, Amazon has marched toward monopoly by singing the tune of contemporary antitrust.

This Note maps out facets of Amazon’s power. In particular, it traces the sources of Amazon’s growth and analyzes the potential effects of its dominance. Doing so enables us to make sense of the company’s business strategy and illuminates anticompetitive aspects of its structure and conduct. This analysis reveals that the current framework in antitrust—specifically its equating competition with “consumer welfare,” typically measured through short-term effects on price and output—fails to capture the architecture of market power in the twenty-first century marketplace. In other words, the potential harms to competition posed by Amazon’s dominance are not cognizable if we assess


competition primarily through price and output. Focusing on these metrics instead blinds us to the potential hazards.

My argument is that gauging real competition in the twenty-first century marketplace—especially in the case of online platforms—requires analyzing the underlying structure and dynamics of markets. Rather than pegging competition to a narrow set of outcomes, this approach would examine the competitive process itself. Animating this framework is the idea that a company’s power and the potential anticompetitive nature of that power cannot be fully understood without looking to the structure of a business and the structural role it plays in markets. Applying this idea involves, for example, assessing whether a company’s structure creates certain anticompetitive conflicts of interest; whether it can cross-leverage market advantages across distinct lines of business; and whether the structure of the market incentivizes and permits predatory conduct.

This is the approach I adopt in this Note. I begin by exploring—and challenging—modern antitrust law’s treatment of market structure. Part I gives an overview of the shift in antitrust away from economic structuralism in favor of price theory and identifies how this departure has played out in two areas of enforcement: predatory pricing and vertical integration. Part II questions this narrow focus on consumer welfare as largely measured by prices, arguing that assessing structure is vital to protect important antitrust values. The Note then uses the lens of market structure to reveal anticompetitive aspects of Amazon’s strategy and conduct. Part III documents Amazon’s history of aggressive investing and loss leading, its company strategy, and its integration across many lines of business. Part IV identifies two instances in which Amazon has built elements of its business through sustained losses, crippling its rivals, and two instances in which Amazon’s activity across multiple business lines poses anticompetitive threats in ways that the current framework fails to register. The Note then assesses how antitrust law can address the challenges raised by online platforms like Amazon. Part V considers what capital markets suggest about the economics of Amazon and other internet platforms. Part VI offers two approaches for addressing the power of dominant platforms: (1) limiting their dominance through restoring traditional antitrust and competition policy principles and (2) regulating their dominance by applying common carrier obligations and duties.

I. THE CHICAGO SCHOOL REVOLUTION: THE SHIFT AWAY FROM COMPETITIVE PROCESS AND MARKET STRUCTURE

One of the most significant changes in antitrust law and interpretation over the last century has been the move away from economic structuralism. In this
Part, I trace this history by sketching out how a structure-based view of competition has been replaced by price theory and exploring how this shift has played out through changes in doctrine and enforcement.

Broadly, economic structuralism rests on the idea that concentrated market structures promote anticompetitive forms of conduct. This view holds that a market dominated by a very small number of large companies is likely to be less competitive than a market populated with many small- and medium-sized companies. This is because: (1) monopolistic and oligopolistic market structures enable dominant actors to coordinate with greater ease and subtlety, facilitating conduct like price-fixing, market division, and tacit collusion; (2) monopolistic and oligopolistic firms can use their existing dominance to block new entrants; and (3) monopolistic and oligopolistic firms have greater bargaining power against consumers, suppliers, and workers, which enables them to hike prices and degrade service and quality while maintaining profits.

This market structure-based understanding of competition was a foundation of antitrust thought and policy through the 1960s. Subscribing to this view, courts blocked mergers that they determined would lead to anticompetitive market structures. In some instances, this meant halting horizontal deals—mergers combining two direct competitors operating in the same market or product line—that would have handed the new entity a large share of the market. In others, it involved rejecting vertical mergers—deals joining companies that operated in different tiers of the same supply or production chain—that would “foreclose competition.” Centrally, this approach involved policing not just for size but also for conflicts of interest—like whether allowing a dominant shoe manufacturer to extend into shoe retailing would create an incentive for the manufacturer to disadvantage or discriminate against competing retailers.

The Chicago School approach to antitrust, which gained mainstream prominence and credibility in the 1970s and 1980s, rejected this structuralist

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25. See, e.g., JOE S. BAIN, INDUSTRIAL ORGANIZATION (2d ed. 1968); DONALD F. TURNER & CARL KAYSSEN, ANTITRUST POLICY: AN ECONOMIC AND LEGAL ANALYSIS (1959); Joe S. Bain, Workable Competition in Oligopoly: Theoretical Considerations and Some Empirical Evidence, 40 AM. ECON. REV. 35, 36–38 (1950). The institutionalists—scholars who emphasized the importance of social rules and organizations in producing economic outcomes—were also influential in this vein. See, e.g., JOHN R. COMMONS, LEGAL FOUNDATIONS OF CAPITALISM (1924).


28. See id.
view. In the words of Richard Posner, the essence of the Chicago School position is that “the proper lens for viewing antitrust problems is price theory.”

Foundational to this view is a faith in the efficiency of markets, propelled by profit-maximizing actors. The Chicago School approach bases its vision of industrial organization on a simple theoretical premise: “[R]ational economic actors working within the confines of the market seek to maximize profits by combining inputs in the most efficient manner. A failure to act in this fashion will be punished by the competitive forces of the market.”

While economic structuralists believe that industrial structure predisposes firms toward certain forms of behavior that then steer market outcomes, the Chicago School presumes that market outcomes—including firm size, industry structure, and concentration levels—reflect the interplay of standalone market forces and the technical demands of production. In other words, economic structuralists take industry structure as an entryway for understanding market dynamics, while the Chicago School holds that industry structure merely reflects such dynamics. For the Chicago School, “[w]hat exists is ultimately the best guide to what should exist.”

Practically, the shift from structuralism to price theory had two major ramifications for antitrust analysis. First, it led to a significant narrowing of the concept of entry barriers. An entry barrier is a cost that must be borne by a firm seeking to enter an industry but is not carried by firms already in the industry. According to the Chicago School, advantages that incumbents enjoy from economies of scale, capital requirements, and product differentiation do not

29. I use “The Chicago School” to refer to the group of legal scholars and economists, primarily based at the University of Chicago, who developed neoclassical law and economics in the mid-twentieth century. But it is worth noting that a new group of scholars at the University of Chicago—such as Luigi Zingales and Guy Rolnik—have departed from the neoclassical approach and are studying market competition with an eye to power. See, e.g., RAGHURAM RAJAN & LUIGI ZINGALES, SAVING CAPITALISM FROM THE CAPITALISTS (2003). See generally PROMARKET, http://promarket.org/about-this-blog [http://perma.cc/G3CD-45K2] (“This is the goal of the ‘ProMarket blog’: to educate the public about the many ways special interests subvert competition in order to make the market system work better.”).

30. Richard A. Posner, The Chicago School of Antitrust Analysis, 127 U. PA. L. REV. 925, 932 (1979). The key assumptions of price theory are “that demand curves slope downward, that an increase in the price of a product will reduce the demand for its complement, [and] that resources gravitate to areas where they will earn the highest return.” Id. at 928.


33. EISNER, supra note 31, at 104.

constitute entry barriers, as these factors are considered to reflect no more than the “objective technical demands of production and distribution.”  

With so many “entry barriers . . . discounted, all firms are subject to the threat of potential competition . . . regardless of the number of firms or levels of concentration.”  

On this view, market power is always fleeting—and hence antitrust enforcement rarely needed.

The second consequence of the shift away from structuralism was that consumer prices became the dominant metric for assessing competition. In his highly influential work, The Antitrust Paradox, Robert Bork asserted that the sole normative objective of antitrust should be to maximize consumer welfare, best pursued through promoting economic efficiency.  

Although Bork used “consumer welfare” to mean “allocative efficiency,” courts and antitrust authorities have largely measured it through effects on consumer prices. In 1979, the Supreme Court followed Bork’s work and declared that “Congress designed

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35. EISNER, supra note 31, at 105.  
36. Id.  
37. BORK, supra note 32, at 7 (“[T]he only legitimate goal of antitrust is the maximization of consumer welfare.”); id. at 405 (“The only goal that should guide interpretation of the antitrust laws is the welfare of consumers . . . . In judging consumer welfare, productive efficiency, the single most important factor contributing to that welfare, must be given due weight along with allocative efficiency.”); see also Daniel A. Crane, The Tempting of Antitrust: Robert Bork and the Goals of Antitrust Policy, 79 ANTITRUST L.J. 835, 847 (2014) (“Bork’s big move [was] his rejection of alternatives to efficiency or consumer welfare-oriented theories of antitrust enforcement . . . .”).  
38. As has been widely noted, Bork defines consumer welfare not as consumer surplus but as total welfare. As a result, for Bork, outcomes that might otherwise be understood to harm consumers are not thought to reduce consumer welfare. For example, Bork concludes that wealth transfers from consumers to monopolist producers would not harm consumer welfare. See BORK, supra note 32, at 110 (“Those who continue to buy after a monopoly is formed pay more for the same output, and that shifts income from them to the monopoly and its owners, who are also consumers. This is not dead-weight loss due to restriction of output but merely a shift in income between two classes of consumers. The consumer welfare model, which views consumers as a collectivity, does not take this income effect into account.”). For critiques of Bork’s conflation of consumer welfare and allocative efficiency, see John J. Flynn, The Reagan Administration’s Antitrust Policy, “Original Intent” and the Legislative History of the Sherman Act, 33 ANTITRUST BULL. 259 (1988); Eleanor M. Fox, The Modernization of Antitrust: A New Equilibrium, 66 CORNELL L. REV. 1140 (1981); Herbert Hovenkamp, Antitrust’s Protected Classes, 88 Mich. L. Rev. 1 (1989); Robert H. Lande, A Traditional and Textualist Analysis of the Goals of Antitrust: Efficiency, Preventing Theft from Consumers, and Consumer Choice, 81 FORDHAM L. REV. 2349 (2013) [hereinafter Lande, A Traditional and Textualist Analysis]; Robert H. Lande, Wealth Transfers as the Original and Primary Concern of Antitrust: The Efficiency Interpretation Challenged, 34 HASTINGS L.J. 65 (1982) [hereinafter Lande, Wealth Transfers]; and Maurice E. Stucke, Reconsidering Antitrust’s Goals, 53 B.C. L. REV. 551 (2012).
the Sherman Act as a ‘consumer welfare prescription’”39—a statement that is widely viewed as erroneous.40 Still, this philosophy wound its way into policy and doctrine. The 1982 merger guidelines issued by the Reagan Administration—a radical departure from the previous guidelines, written in 1968—reflected this newfound focus. While the 1968 guidelines had established that the “primary role” of merger enforcement was “to preserve and promote market structures conducive to competition,”41 the 1982 guidelines said mergers “should not be permitted to create or enhance ‘market power,’” defined as the “ability of one or more firms profitably to maintain prices above competitive levels.”42 Today, showing antitrust injury requires showing harm to consumer welfare, generally in the form of price increases and output restrictions.43

It is true that antitrust authorities do not ignore non-price effects entirely. The 2010 Horizontal Merger Guidelines, for example, acknowledge that enhanced market power can manifest as non-price harms, including in the form of reduced product quality, reduced product variety, reduced service, or diminished innovation.44 Notably, the Obama Administration’s opposition to one of the largest mergers proposed on its watch—Comcast/TimeWarner—stemmed from a concern about market access, not prices.45 And by some measures, the

43. See, e.g., Ginzburg v. Mem’l Healthcare Sys., Inc., 993 F. Supp. 998, 1015 (S.D. Tex. 1997) (“Because ‘the purpose of antitrust law is the promotion of consumer welfare,’ the court must analyze the antitrust injury question from the perspective of the consumer . . . . Thus, in order to show that he suffered an antitrust injury, ‘an antitrust plaintiff must prove that the challenged conduct affected the prices, quantity or quality of goods or services and not just his own welfare.’” (quoting Reazin v. Blue Cross & Blue Shield of Kan., 899 F.2d 951, 960 (10th Cir. 1990); Angelico v. Lehigh Valley Hosp., Inc., 984 F. Supp. 308, 312 (E.D. Pa. 1997))).
Federal Trade Commission (FTC) has alleged potential harm to innovation in roughly one-third of merger enforcement actions in the last decade.\textsuperscript{46} Still, it is fair to say that a concern for innovation or non-price effects rarely animates or drives investigations or enforcement actions—especially outside of the merger context.\textsuperscript{47} Economic factors that are easier to measure—such as impacts on price, output, or productive efficiency in narrowly defined markets—have become “disproportionately important.”\textsuperscript{48}

Two areas of enforcement that this reorientation has affected dramatically are predatory pricing and vertical integration. The Chicago School claims that “predatory pricing, vertical integration, and tying arrangements never or almost never reduce consumer welfare.”\textsuperscript{49} Both predatory pricing and vertical integration are highly relevant to analyzing Amazon’s path to dominance and the source of its power. Below, I offer a brief overview of how the Chicago School’s influence has shaped predatory pricing doctrine and enforcers’ views of vertical integration.

\textbf{A. Predatory Pricing}

Through the mid-twentieth century, Congress repeatedly enacted legislation targeting predatory pricing. Congress, as well as state legislatures, viewed predatory pricing as a tactic used by highly capitalized firms to bankrupt rivals and destroy competition—in other words, as a tool to concentrate control. Laws prohibiting predatory pricing were part of a larger arrangement of pricing laws that sought to distribute power and opportunity. However, a controversial Supreme Court decision in the 1960s created an opening for critics to attack the regime. This intellectual backlash wound its way into Supreme Court doctrine by the early 1990s in the form of the restrictive “recoupment test.”


\textsuperscript{47} And even merger review has “migrated towards assessing what is measurable—namely short-term pricing effects, primarily understood under their unilateral effects theory, and short-term productive efficiencies.” MAURICE E. STUCKE & ALLEN P. GRUNES, \textit{BIG DATA AND COMPETITION POLICY} 107 (2016). “Price has become the common denominator in merger review.” \textit{Id.} at 109.

\textsuperscript{48} \textit{Id.} at 108.

\textsuperscript{49} Crane, \textit{supra} note 37, at 852.
The earliest predatory pricing case in America was the government's antitrust suit against Standard Oil, which reached the Supreme Court in 1911. As detailed in Ida Tarbell's exposé, *A History of the Standard Oil Company*, Standard Oil routinely slashed prices in order to drive rivals from the market. Moreover, it cross-subsidized: Standard Oil charged monopoly prices in markets where it faced no competitors; in markets where rivals checked the company's dominance, it drastically lowered prices in an effort to push them out. In its antitrust case against the company, the government argued that a suite of practices by Standard Oil—including predatory pricing—violated section 2 of the Sherman Act. The Supreme Court ruled for the government and ordered the break-up of the company. Subsequent courts cited the decision for establishing that in the quest for monopoly power, “price cutting became perhaps the most effective weapon of the larger corporation.”

Recognizing the threat of predatory pricing executed by Standard Oil, Congress passed a series of laws prohibiting such conduct. In 1914 Congress enacted the Clayton Act to strengthen the Sherman Act and included a provision to curb price discrimination and predatory pricing. The House Report stated that section 2 of the Clayton Act was expressly designed to prohibit large corporations from slashing prices below the cost of production “with the intent to destroy and make unprofitable the business of their competitors” and with the aim of “acquiring a monopoly in the particular locality or section in which the discriminating price is made.”

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51. See *Ida Tarbell, A History of the Standard Oil Company* 6-7 (1904).
52. Monopoly price refers to the price profitably above cost that a firm with monopoly power can charge.
54. Leslie, supra note 50, at 576 (quoting United States v. A. Schrader’s Son, 264 F. 175, 181 (D. Ohio 1919), rev’d, 252 U.S. 85 (1920)).
56. This legislative history makes plain that section 2 of the Clayton Act “was born of a desire by Congress to curb the use by financially powerful corporations of localized price-cutting tactics which had gravely impaired the competitive position of other sellers.” FTC v. Anheuser-Busch, Inc., 363 U.S. 526, 543 (1959).
Congress also acted to protect state “fair trade” laws that further safeguarded against predatory pricing. Fair trade legislation granted producers the right to set the final retail price of their goods, limiting the ability of chain stores to discount.58 When the Supreme Court targeted these “resale price maintenance” efforts, Congress stepped up to defend them. After the Supreme Court in 1911 struck down the form of resale price maintenance enabled by fair trade laws,59 Congress in 1937 carved out an exception for state fair trade laws through the Miller-Tydings Act.60 When the Supreme Court in 1951 ruled that producers could enforce minimum prices only against those retailers that had signed contracts agreeing to do so,61 Congress responded with a law making minimum prices enforceable against nonsigners too.62

Another byproduct of the “fair trade” movement was the Robinson-Patman Act of 1936. This Act prohibited price discrimination by retailers among producers and by producers among retailers.63 Its aim was to prevent conglomerates and large companies from using their buyer power to extract crippling discounts from smaller entities, and to keep large manufacturers and retailers from teaming up against rivals.64 Like laws banning predatory pricing, the prohibition against price discrimination effectively curbed the power of size. Section 3 of the Act addressed predatory pricing directly by making it a crime to sell goods at “unreasonably low prices for the purpose of destroying competition or eliminating a competitor.”65 While predatory price cutting gave rise to civil liability and remedies under the Clayton Act, the Robinson-Patman Act attached criminal penalties as well.66

This series of antitrust laws demonstrates that Congress saw predatory pricing as a serious threat to competitive markets. By the mid-twentieth century, the Supreme Court recognized and gave effect to this congressional intent.

58. Lawrence Shepard, The Economic Effects of Repealing Fair Trade Laws, 12 J. CONSUMER AFF. 220, 221 (1978) (“Fair trade marketing or ‘resale price maintenance’ enabled manufacturers to require retailers to charge producer-specified prices on certain goods.”).
64. See FTC v. Henry Broch & Co., 363 U.S. 166, 168 (1960) (“The Robinson-Patman Act was enacted in 1936 to curb and prohibit all devices by which large buyers gained discriminatory preferences over smaller ones by virtue of their greater purchasing power.”).
66. § 3, 49 Stat. at 1528.
The Court upheld the Robinson-Patman Act numerous times, holding that the relevant factors were whether a retailer intended to destroy competition through its pricing practices and whether its conduct furthered that purpose.\(^67\) However, not all instances of below-cost pricing were illegitimate. Liquidating excess or perishable goods, for example, was considered fair game.\(^68\) Only “sales made below cost without legitimate commercial objective and with specific intent to destroy competition” would clearly violate section 3.\(^69\) In other cases, the Court distinguished between competitive advantages drawn from superior skill and production, and those drawn from the brute power of size and capital.\(^70\) The latter, the Court ruled, were illegitimate.\(^71\)

In *Utah Pie Co. v. Continental Baking Co.*, the Court further reinforced the illegitimacy of predatory pricing.\(^72\) Utah Pie and Continental Baking were competing manufacturers of frozen dessert pies. A locational advantage gave Utah Pie cheaper access to the Salt Lake City market, which it used to price goods below those sold by competitors. Other frozen pie manufacturers, including Continental, began selling at below-cost prices in the Salt Lake City market, while keeping prices in other regions at or above cost. Utah Pie brought a predatory pricing case against Continental. The Supreme Court ruled for Utah Pie, noting that the pricing strategies of its competitors had diverted business from Utah Pie and compelled the company to further lower its prices, leading to a “declining price structure” overall.\(^73\) Additionally, Continental had admitted to sending an industrial spy to Utah Pie’s plant to gain infor-

\(^67\) See *United States v. Nat’l Dairy Prods. Corp.*, 372 U.S. 29, 35 (1963) (“[I]n prohibiting sales at unreasonably low prices for the purpose of destroying competition, [the Act] listed as elements of the illegal conduct not only the intent to achieve a result—destruction of competition—but also the act—selling at unreasonably low prices—done in furtherance of that design or purpose.”).

\(^68\) See *id.* at 37.

\(^69\) *Id.*


\(^71\) *Id.* This basis for distinguishing legitimate from illegitimate price-cutting echoed other decisions. See *FTC v. Morton Salt Co.*, 334 U.S. 37, 43 (1948) (“The legislative history of the Robinson-Patman Act makes it abundantly clear that Congress considered it to be an evil that a large buyer could secure a competitive advantage over a small buyer solely because of the large buyer’s quantity purchasing ability. The Robinson-Patman Act was passed to deprive a large buyer of such advantages . . . .”); *United States v. N.Y. Great Atl. & Pac. Tea Co.*, 173 F.2d 79 (7th Cir. 1949).

\(^72\) 386 U.S. 685 (1967).

\(^73\) *Id.* at 703.
motion to sabotage Utah’s business relations with retailers, a fact the Court used to establish “intent to injure.”

The decision was controversial. Continental’s conduct had loosened the grip of a quasi-monopolist. Prior to the alleged predation, Utah Pie had controlled 66.5% of the Salt Lake City market, but following Continental’s practices, its share dropped to 45.3%. Penalizing conduct that had made a market more competitive as predatory seemed perverse. As Justice Stewart noted in the dissent, “I cannot hold that Utah Pie’s monopolistic position was protected by the federal antitrust laws from effective price competition . . . .”

The case presented an opportunity for critics of predatory pricing laws to attack the doctrine as misguided. In an article labeling Utah Pie “the most anticompetitive antitrust decision of the decade,” Ward Bowman, an economist at Yale Law School, argued that the premise of predatory pricing laws was wrong. He wrote, “The Robinson-Patman Act rests upon a presumption that price discrimination can or might be used as a monopolizing technique. This, as more recent economic literature confirms, is at best a highly dubious presumption.” Bork, meanwhile, said of the decision, “There is no economic theory worthy of the name that could find an injury to competition on the facts of the case. Defendants were convicted not of injuring competition but, quite simply, of competing.” He described predatory pricing generally as “a phenomenon that probably does not exist” and the Robinson-Patman Act as “the misshapen progeny of intolerable draftsmanship coupled to wholly mistaken economic theory.” Other scholars, particularly those from the rising Chicago School, also weighed in to criticize Utah Pie.

As the writings of Bowman and Bork suggest, the Chicago School critique of predatory pricing doctrine rests on the idea that below-cost pricing is irra-

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74. Id. at 696–97.
75. Id. at 689.
76. Id. at 706 (Stewart, J., dissenting).
77. Ward S. Bowman, Restraint of Trade by the Supreme Court: The Utah Pie Case, 77 YALE L.J. 70, 86 (1967).
78. Id. at 70.
80. Id. at 154, 382.
tional and hence rarely occurs. For one, the critics argue, there was no guarantee that reducing prices below cost would either drive a competitor out or otherwise induce the rival to stop competing. Second, even if a competitor were to drop out, the predator would need to sustain monopoly pricing for long enough to recoup the initial losses and successfully thwart entry by potential competitors, who would be lured by the monopoly pricing. The uncertainty of its success, coupled with its guarantee of costs, made predatory pricing an unappealing—and therefore highly unlikely—strategy.

As the influence and credibility of these scholars grew, their thinking shaped government enforcement. During the 1970s, for example, the number of Robinson-Patman Act cases that the FTC brought dropped dramatically, reflecting the belief that these cases were of little economic concern. Under the Reagan Administration, the FTC all but entirely abandoned Robinson-Patman Act cases. Bork’s appointment as Solicitor General, meanwhile, gave him a prime platform to influence the Supreme Court on antitrust issues and enabled him “to train and influence many of the attorneys who would argue before the Supreme Court for the next generation.”

The Chicago School critique came to shape Supreme Court doctrine on predatory pricing. The depth and degree of this influence became apparent in Matsushita Electric Industrial Co. v. Zenith Radio Corp. Zenith, an American manufacturer of consumer electronics, brought a Sherman Act section 1 case accusing Japanese firms of conspiring to charge predatorily low prices in the U.S. market in order to drive American companies out of business. The Su-

82. See Jonathan B. Baker, Predatory Pricing After Brooke Group: An Economic Perspective, 62 ANTITRUST L.J. 585, 586 (1994) (“The Chicago School view of predatory pricing was perhaps best captured by a 1987 dispute between two FTC Commissioners over the aptness of a metaphor: the animal that best represents price predation. For one Commissioner, predatory pricing was a ‘white tiger,’ an extremely rare creature. For the other Commissioner, price predation more closely resembled a ‘unicorn,’ a complete myth. The narrow spectrum of views between a white tiger and a unicorn fairly reflects the Chicago School view that predatory pricing is almost always irrational, and so is unlikely actually to occur.” (citations omitted)).

83. See BORK, supra note 32, at 149-55.


85. Id.

86. Id. at 1008.


88. Matsushita, 475 U.S. at 577-78.
preme Court granted certiorari to review whether the Third Circuit had applied the correct standard in reversing the district court’s grant of summary judgment to Matsushita—an inquiry that led the Court to assess the reasonableness of assuming the alleged predation.89

Citing to Bork’s *The Antitrust Paradox*, the Court concluded that predatory pricing schemes were implausible and therefore could not justify a reasonable assumption in favor of Zenith. “As [Bork’s work] shows, the success of such schemes is inherently uncertain: the short-run loss is definite, but the long-run gain depends on successfully neutralizing the competition,” the Court wrote.90 “For this reason, there is a consensus among commentators that predatory pricing schemes are rarely tried, and even more rarely successful.”91

In addition to adopting Bork’s cost-benefit framing, the Court echoed his concern that price competition could be mistaken for predation. In *The Antitrust Paradox*, Bork wrote, “The real danger for the law is less that predation will be missed than that normal competitive behavior will be wrongly classified as predatory and suppressed.”92 Justice Powell, writing for the 5-4 majority in *Matsushita*, echoed Bork: “[C]utting prices in order to increase business often is the very essence of competition. Thus mistaken inferences in cases such as this one are especially costly, because they chill the very conduct the antitrust laws are designed to protect.”93

Although *Matsushita* focused on a narrow issue—the summary judgment standard for claims brought under Section 1 of the Sherman Act, which targets coordination among parties94—it has been widely influential in monopolization cases, which fall under Section 2. In other words, reasoning that originated in one context has wound up in jurisprudence applying to totally distinct circumstances, even as the underlying violations differ vastly.95 Subsequent courts applied *Matsushita*’s predatory pricing analysis to cases involving monopolization and unilateral anticompetitive conduct, shaping the jurisprudence of Section 2

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89. *Id.* at 580, 588–92.
90. *Id.* at 589.
91. *Id.*
95. *Id.*
of the Sherman Act. The lower courts seized on *Matsushita*’s central point: the idea that “predatory pricing schemes are rarely tried, and even more rarely successful.” The phrase became a talisman against the existence of predatory pricing, routinely invoked by courts in favor of defendants.

In *Brooke Group Ltd. v. Brown & Williamson Tobacco Corp.*, the Supreme Court formalized this premise into a doctrinal test. The case involved cigarette manufacturing, an industry dominated by six firms. Liggett, one of the six, introduced a line of generic cigarettes, which it sold for about 30% less than the price of branded cigarettes. Liggett alleged that when it became clear that its generics were diverting business from branded cigarettes, Brown & Williamson, a competing manufacturer, began selling its own generics at a loss. Liggett sued, claiming that Brown & Williamson’s tactic was designed to pressure Liggett to raise prices on its generics, thus enabling Brown & Williamson to maintain high profits on branded cigarettes. A jury returned a verdict in favor of Liggett, but the district court judge decided that Brown & Williamson was entitled to judgment as a matter of law.

Importantly, Liggett’s accusation was that Brown & Williamson would recoup its losses through raising prices on branded cigarettes, not the generics cigarettes it was steeply discounting. Building on the analysis introduced in *Matsushita*, the Court held that Liggett had failed to show that Brown & Williamson would be able to execute the scheme successfully by recouping its losses through supracompetitive pricing. “Evidence of below-cost pricing is not alone sufficient to permit an inference of probable recoupment and injury to competition,” Justice Kennedy wrote for the majority. Instead, the plaintiff “must demonstrate that there is a likelihood that the predatory scheme alleged would cause a rise in prices above a competitive level that would be sufficient to compensate for the amounts expended on the predation, including the time value of the money invested in it” — a requirement now known as the “recoupment test.”

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99. *Id.* at 213.

100. *Id.* at 214.

101. *Id.* at 216.

102. *Id.* at 218.

103. *Id.* at 226.

104. *Id.*
In placing recoupment at the center of predatory pricing analysis, the Court presumed that direct profit maximization is the singular goal of predatory pricing.\(^{105}\) Furthermore, by establishing that harm occurs \textit{only} when predatory pricing results in higher prices, the Court collapsed the rich set of concerns that had animated earlier critics of predation, including an aversion to large firms that exploit their size and a desire to preserve local control. Instead, the Court adopted the Chicago School’s narrow conception of what constitutes this harm (higher prices) and how this harm comes about—namely, through the alleged predator raising prices on the previously discounted good.\(^{106}\)

Today, succeeding on a predatory pricing claim requires a plaintiff to meet the \textit{Brooke Group} recoupment test by showing that the defendant would be able to recoup its losses through sustaining supracompetitive prices. Since the Court introduced this recoupment requirement, the number of cases brought and won by plaintiffs has dropped dramatically.\(^{107}\) Despite the Court’s contention—that “predatory pricing schemes are rarely tried and even more rarely successful”—a host of research shows that predatory pricing can be “an attractive anticompetitive strategy” and has been used by dominant firms across sectors to squash or deter competition.\(^{108}\)

\(^{105}\) See \textit{id.} at 224 (“Recoupment is the ultimate object of an unlawful predatory pricing scheme; it is the means by which a predator profits from predation. Without it, predatory pricing produces lower aggregate prices in the market, and consumer welfare is enhanced.”).

\(^{106}\) As some commentators have noted, the Court’s reliance on scholarship advocating a retreatrenchment of enforcement against predatory pricing schemes did not reflect a dearth of opposing views. See, e.g., F.M. Scherer, \textit{Conservative Economics and Antitrust: A Variety of Influences}, in \textit{How the Chicago School Overshot the Mark} 30, 33 (Robert Pitofsky ed., 2008) (“Already by the time of the \textit{Matsushita} decision, there was a substantial scholarly literature documenting what should have passed for predation by any reasonable definition and showing the rationality of sharp price-cutting by a dominant firm to discourage new entrants. Since there was a diversity of scholarly views at the time key Supreme Court pronouncements were rendered on predation, the fault for ignoring one side of the scholarship must be attributed to the Court’s myopia or (without the obiter dictum) compelling facts, and not to economists’ contributions.” (citation omitted)); \textit{id.} at 34 (“If there was favoritism, it was not in the economic literature evaluated, but in the weighing of alternative perspectives.”).

\(^{107}\) Sokol, \textit{supra} note 84, at 1013 (“The recoupment prong eviscerated the \textit{Utah Pie} standard and made it nearly impossible in practice for plaintiffs to win a primary line Robinson-Patman claim going forward.”). The only recent case in which plaintiffs survived a motion for summary judgment is \textit{Spirit Airlines, Inc. v. Northwest Airlines, Inc.}, 431 F.3d 917 (6th Cir. 2005), where the court denied summary judgment on the grounds that a reasonable trier of fact could find sufficient evidence of predatory pricing.

B. Vertical Integration

Analysis of vertical integration has similarly moved away from structural concerns. Vertical integration arises when “two or more successive stages of production and/or distribution of a product are combined under the same control." For most of the last century, enforcers reviewed vertical integration under the same standards as horizontal mergers, as set out in the Sherman Act, the Clayton Act, and the Federal Trade Commission Act. Vertical integration was banned whenever it threatened to “substantially lessen competition” or constituted a “restraint of trade” or an “unfair method[] of competition.” However, the Chicago School’s view that vertical mergers are generally pro-competitive has led enforcement in this area to significantly drop.

Serious concern about vertical integration took hold in the wake of the Great Depression, when both the law and economic theory became sharply critical of the phenomenon. Thurman Arnold, the Assistant Attorney General in the 1930s, targeted vertical ownership achieved through both mergers and contractual provisions, and by the 1950s courts and antitrust authorities generally viewed vertical integration as anticompetitive. Partly because it believed that the Supreme Court had failed to use existing law to block vertical integration through acquisitions, Congress in 1950 amended section 7 of the Clayton Act to make it applicable to vertical mergers.

Critics of vertical integration primarily focused on two theories of potential harm: leverage and foreclosure. Leverage reflects the idea that a firm can use its dominance in one line of business to establish dominance in another. Because “horizontal power in one market or stage of production creates ‘leverage’ for the extension of the power to bar entry at another level,” vertical integration...
combined with horizontal market power “can impair competition to a greater extent than could the exercise of horizontal power alone.”\(^{115}\) Foreclosure, meanwhile, occurs when a firm uses one line of business to disadvantage rivals in another line. A flourmill that also owned a bakery could hike prices or degrade quality when selling to rival bakers—or refuse to do business with them entirely. In this view, even if an integrated firm did not directly resort to exclusionary tactics, the arrangement would still increase barriers to entry by requiring would-be entrants to compete at two levels.

When seeking to block vertical combinations or arrangements, the government frequently built its case on one of these theories—and, through the 1960s, courts largely accepted them.\(^{116}\) In *Brown Shoe v. United States*, for example, the government sought to block a merger between a leading manufacturer and a leading retailer of shoes on the grounds that the tie-up would “foreclose[...] competition” and “enhanc[e] Brown’s competitive advantage over other producers, distributors and sellers of shoes.”\(^{117}\) The Court acknowledged that the Clayton Act did not “render unlawful all [...] vertical arrangements,” but held that this merger would undermine competition by “foreclose[ing] [...] independent manufacturers from markets otherwise open to them.”\(^{118}\) In other words, the concern was that—once merged—the combined entity would forbid its retailing arm from stocking shoes made by competing independent manufacturers. Calling this form of foreclosure “the primary vice of a vertical merger,”\(^{119}\) the Court noted it was also largely inevitable: “Every extended vertical arrangement by its very nature, for at least a time, denies to competitors of the supplier the opportunity to compete for part or all of the trade of the customer-party to the vertical arrangement.”\(^{120}\) In his partial concurrence, Justice Harlan observed that the deal would enable Brown to “turn an independent purchaser into a captive market for its shoes,” thereby “dimin-


\(^{116}\) See, e.g., FTC v. Consol. Foods Corp., 380 U.S. 592, 594-95 (1965); United States v. Yellow Cab Co., 332 U.S. 218, 226-27 (1947); Miss. River Corp. v. FTC, 454 F.2d 1083, 1091 (8th Cir. 1972); see also Anchor Serum Co. v. FTC, 217 F.2d 867, 873 (7th Cir. 1954) (“It would require a naive mind to conclude, as petitioner would have us do, that the arrangements under consideration could result in other than an adverse effect upon competition.”). But see United States v. Columbia Steel Co., 334 U.S. 405, 507-08 (1948) (finding that a vertical combination did not violate antitrust law).

\(^{117}\) 370 U.S. 294, 297 (1962).

\(^{118}\) Id. at 324, 332.

\(^{119}\) Id. at 323.

\(^{120}\) Id. at 324.
ish[ing] the available market for which shoe manufacturers compete.” The Court enjoined the merger.

Another reason courts cited for blocking these arrangements was that vertical deals eliminated potential rivals—a recognition of how a merger would reshape industry structure. Upholding the FTC’s challenge of Ford purchasing an equipment manufacturer, the Court noted that before the acquisition, Ford had helped check the power of the manufacturers and had a “soothing influence” over prices. An outside firm “may someday go in and set the stage for noticeable deconcentration,” the Court wrote. “While it merely stays near the edge, it is a deterrent to current competitors.” In other words, the threat of potential entry by Ford—the fact that, pre-merger, it could have internally expanded into equipment manufacturing—had played an important disciplining role. Relatedly, the Court observed that when a company in a competitive market integrates with a firm in an oligopolistic one, the merger can have “the result of transmitting the rigidity of the oligopolistic structure” of one industry to the other, “thus reducing the chances of future deconcentration” of the market. The Court required Ford to divest the manufacturer.

In the 1950s—while Congress, enforcement agencies, and the courts recognized potential threats posed by vertical arrangements—Chicago School scholars began to cast doubt on the idea that vertical integration has anticompetitive effects. By replacing market transactions with administrative decisions within the firm, they argued, vertical arrangements generated efficiencies that antitrust law should promote. And if integration failed to yield efficiencies, then the integrated firm would have no cost advantages over unintegrated rivals, therefore posing no risk of impeding entry. They further argued that vertical deals would not affect a firm’s pricing and output policies, the primary metrics

121. Id. at 372 (Harlan, J., concurring in part and dissenting in part).
122. Id. at 294 (majority opinion).
125. Id. (quoting Ford Motor Co., 286 F. Supp. at 441).
126. Id. at 568.
127. Id. at 575.
in their analysis. Under this framework, only horizontal mergers affect competition, as “[h]orizontal mergers increase market share, but vertical mergers do not.”129

Chicago School theory holds that concerns about both leverage and foreclosure are misguided. Under the “single monopoly profit theorem,” the amount of profit that a firm can extract from one market is fixed and cannot be expanded through extending into an adjacent market if the two products are used in fixed proportions.130 Under this premise, not only does monopoly leveraging not pose any competitive concern, but—since it can only be motivated by efficiencies, not profits—it is actually procompetitive when it does occur.

The traditional worries about foreclosure, Bork claimed, were unfounded, as “[p]redation through vertical merger is extremely unlikely.”131 A manufacturer would not favor its retail subsidiary over others unless it was cheaper to do so—in which case, Bork argued, discriminating would yield efficiencies that the firm would pass on to consumers. Additionally, any manufacturer that sought to privilege its own retailer would face “entrants who would arrive in sky-darkening swarms for the profitable alternatives.”132 In other words, Bork’s take was that vertical integration generally would not create forms of market power that firms could use to hike prices or constrain output. In the rare case that vertical integration did create this form of market power, he believed that it would be disciplined by actual or potential entry by competitors.133 In light of

129. BORK, supra note 32, at 231.
130. See, e.g., id. at 372-75, 380-81; Posner, supra note 30, at 925, 927 (“[I]t makes no sense for a monopoly producer to take over distribution in order to earn monopoly profits at the distribution as well as the manufacturing level. The product and its distribution are complements, and an increase in the price of distribution will reduce the demand for the product. Assuming that the product and its distribution are sold in fixed proportions . . . the conclusion is reached that vertical integration must be motivated by a desire for efficiency rather than for monopoly.”); id. at 929 (“If the [service] is already being priced at the optimal monopoly level, an increase in the price of [one component] above the competitive level will raise the total price of the service to the consumer above the optimal monopoly level and will thereby reduce the monopolist’s profits.”).
132. Id. at 234.
133. Bork later modified his position on entry barriers when he consulted for Netscape in the Antitrust Division’s challenge to Microsoft’s exclusionary practices, which the company had employed primarily against Netscape. Although Bork had been a fierce critic of “leverage theory,” he described Microsoft’s attempt to tie its operating system to its software as a way “to leverage the [Windows] asset to make people use [Internet Explorer] instead of [Netscape] Navigator.” Hovenkamp, supra note 113, at 996-97 (citing Robert Bork, High-Stakes Antitrust: The Last Hurrah?, in HIGH-STAKES ANTITRUST: THE LAST HURRAH? 45, 50 (Robert W. Hahn ed., 2003)). But in an article later commissioned by Google, Bork re-
this, antitrust law’s aversion to vertical arrangements was, Bork argued, irrational. “The law against vertical mergers is merely a law against the creation of efficiency.”134

With the election of President Reagan, this view of vertical integration became national policy. In 1982 and 1984, the Department of Justice (DOJ) and the FTC issued new merger guidelines outlining the framework that officials would use when reviewing horizontal deals.135 The 1984 version included guidelines specific to vertical deals.136 Part of a sweeping effort to overhaul antitrust enforcement, the new guidelines narrowed the circumstances in which the agencies would challenge vertical mergers.137 Although the guidelines acknowledged that vertical mergers could sometimes give rise to competitive concerns, in practice the change constituted a de facto approval of vertical deals. The DOJ and FTC did not challenge even one vertical merger during President Reagan’s tenure.138

Although subsequent administrations have continued reviewing vertical mergers, the Chicago School’s view that these deals generally do not pose threats to competition has remained dominant.139 Rejection of vertical tie-

turned to a critique of leverage theory, deriding the idea that Google could leverage its position in the general search market to gain additional profits in downstream markets. See Robert H. Bork & J. Gregory Sidak, What Does the Chicago School Teach About Internet Search and the Antitrust Treatment of Google, 8 J. COMPETITION L. & ECON. 663, 675–77 (2012).

134. BORK, supra note 32, at 234.


137. Id.

138. William E. Kovacic, Built To Last? The Antitrust Legacy of the Reagan Administration, 35 FED. B. NEWS & J. 244, 245 (1988) (“Since 1981, the government antitrust agencies have issued no complaints or consent agreements in Robinson-Patman matters that originated after the arrival of Reagan appointees to head the FTC and the Justice Department. Reagan FTC leadership has said the Commission has not abandoned Robinson-Patman enforcement, but the government’s failure to initiate new enforcement actions during the Reagan Administration suggests that firms are virtually immune from federal prosecution for conduct the statute proscribes.”); Joseph Guinto, Antitrust Targets Vertical Deals, INV.’S BUS. DAILY, June 17, 1999, at A01.

139. For example, Democrat-appointed antitrust leaders have also adopted the Chicago School view that most vertical mergers are benign. As then-FTC Commissioner Christine Varney (who would later go on to be assistant attorney general for antitrust in the Obama Administration) observed in a speech, “[M]ost vertical arrangements raise few competitive concerns.” Christine A. Varney, Comm’r, FTC, Vertical Merger Enforcement Challenges at the FTC (July 17, 1995), http://www.ftc.gov/public-statements/1995/07/vertical-merger-enforcement-challenges-ftc [http://perma.cc/JDQ8-H5KB].
ups—standard through the 1960s and 1970s—is extremely rare today;\textsuperscript{140} in instances where agencies spot potential harm, they tend to impose conduct remedies or require divestitures rather than block the deal outright.\textsuperscript{141} The Obama Administration took this approach with two of the largest vertical deals of the last decade: Comcast/NBC and Ticketmaster/LiveNation. In each case, consumer advocates opposed the deal\textsuperscript{142} and warned that the tie-up would concentrate significant power in the hands of a single company,\textsuperscript{143} which it could use to engage in exclusionary practices, hike prices for consumers, and dock payments to content producers, such as TV screenwriters and musicians. Nonetheless, the DOJ attached certain behavioral conditions and required a minor divestiture, ultimately approving both deals.\textsuperscript{144} The district court held the consent decrees to be in the public interest.


\textsuperscript{141} By imposing conduct remedies, the antitrust agencies set out behavioral conditions that the merging parties must comply with, subject to agency oversight. By requiring divestitures, the antitrust agencies ask the merging parties to sell off a part of their business to another entity.


\textsuperscript{143} As Bork pointed out, the vertical deals would not increase the market share of either company. See BORK, supra note 32, at 231. In Ticketmaster/LiveNation’s case, the deal instead “creates one company that will have a hand in just about every corner of the music business,” Smith & Catan, supra note 142, while in Comcast/NBC’s case, the merger created “a $30 billion media behemoth that controls not just how television shows and movies are made but how they are delivered to people’s homes,” Yinka Adegoke & Dan Levine, Comcast Completes NBC Universal Merger, REUTERS (Jan. 29, 2011, 11:50 AM), http://www.reuters.com/article/us-comcast-nbc-idUSTRE70S2WZ20110129 [http://perma.cc/EXC3-4PAU].

II. WHY COMPETITIVE PROCESS AND STRUCTURE MATTER

The current framework in antitrust fails to register certain forms of anti-competitive harm and therefore is unequipped to promote real competition—a shortcoming that is illuminated and amplified in the context of online platforms and data-driven markets. This failure stems both from assumptions embedded in the Chicago School framework and from the way this framework assesses competition.

Notably, the present approach fails even if one believes that antitrust should promote only consumer interests. Critically, consumer interests include not only cost but also product quality, variety, and innovation. Protecting these long-term interests requires a much thicker conception of “consumer welfare” than what guides the current approach. But more importantly, the undue focus on consumer welfare is misguided. It betrays legislative history, which reveals that Congress passed antitrust laws to promote a host of political economic ends—including our interests as workers, producers, entrepreneurs, and citizens. It also mistakenly supplants a concern about process and structure (i.e., whether power is sufficiently distributed to keep markets competitive) with a calculation regarding outcome (i.e., whether consumers are materially better off).

Antitrust law and competition policy should promote not welfare but competitive markets. By refocusing attention back on process and structure, this approach would be faithful to the legislative history of major antitrust laws. It would also promote actual competition—unlike the present framework, which is overseeing concentrations of power that risk precluding real competition.

A. Price and Output Effects Do Not Cover the Full Range of Threats to Consumer Welfare

As discussed in Part I, modern doctrine assumes that advancing consumer welfare is the sole purpose of antitrust. But the consumer welfare approach to antitrust is unduly narrow and betrays congressional intent, as evident from
legislative history and as documented by a vast body of scholarship. I argue in this Note that the rise of dominant internet platforms freshly reveals the shortcomings of the consumer welfare framework and that it should be abandoned.

Strikingly, the current approach fails even if one believes that consumer interests should remain paramount. Focusing primarily on price and output undermines effective antitrust enforcement by delaying intervention until market power is being actively exercised, and largely ignoring whether and how it is being acquired. In other words, pegging anticompetitive harm to high prices and/or lower output—while disregarding the market structure and competitive process that give rise to this market power—restricts intervention to the moment when a company has already acquired sufficient dominance to distort competition.

This approach is misguided because it is much easier to promote competition at the point when a market risks becoming less competitive than it is at the point when a market is no longer competitive. The antitrust laws reflect this recognition, requiring that enforcers arrest potential restraints to competition “in their incipiency.”145 But the Chicago School’s hostility to false positives—and insistence that market power and high concentration both reflect and generate efficiency146—has undermined this incipiency standard and enfeebled enforcement as a whole. Indeed, enforcers have largely abandoned section 2 monopolization claims,147 which—by virtue of assessing how a single company amasses and exercises its power—traditionally involved an inquiry into structure. By instead relying primarily on price and output effects as metrics of competition, enforcers risk overlooking the structural weakening of competi-

145. Clayton Act, ch. 323, 38 Stat. 730 (1914) (codified as amended at 15 U.S.C. §§ 12-27, 29 U.S.C. §§ 52-53 (2012)). Former Assistant Attorney General for Antitrust Bill Baer described the incipiency standard as seeking to “prevent competitive conditions from deteriorating even when competition was not clearly problematic at the time of the lawsuit.” He continued, “Second, in order to arrest potential restraints ‘in their incipiency,’ the Act banned these practices where their effect ‘may be to substantially lessen competition.’ The intent was to consider likely future effect—not just palpable impact—in determining whether these practices were illegal.” Bill Baer, Assistant Att’y Gen., Antitrust Div., Dep’t of Justice, Remarks at the American Bar Association Clayton Act 100th Anniversary Symposium (Dec. 4, 2014).

146. See Hovenkamp, supra note 57, at 359.

147. Daniel A. Crane, Has the Obama Justice Department Reinigorated Antitrust Enforcement?, STAN. L. REV. ONLINE (July 18, 2012), http://www.stanfordlawreview.org/online/has-the-obama-justice-department-reinvigorated-antitrust-enforcement [http://perma.cc/6J44-NNSP] ("The final category is monopolization cases. Over the eight years of the Bush Administration, the Justice Department filed no monopolization cases. To date, the Obama Administration has filed only one case, hardly evidencing a major shift in tactics.").
tion until it becomes difficult to address effectively, an approach that undermines consumer welfare.

Indeed, growing evidence shows that the consumer welfare frame has led to higher prices and few efficiencies, failing by its own metrics. It arguably has further contributed to a decline in new business growth, resulting in reduced opportunities for entrepreneurs and a stagnant economy. The long-term interests of consumers include product quality, variety, and innovation—factors best promoted through both a robust competitive process and open markets. By contrast, allowing a highly concentrated market structure to persist endangers these long-term interests, since firms in uncompetitive markets need not compete to improve old products or tinker to create new ones. Even if we accept consumer welfare as the touchstone of antitrust, ensuring a competitive process—by looking, in part, to how a market is structured—ought to be key. Empirical studies revealing that the consumer welfare frame has resulted in higher prices—failing even by its own terms—support the need for a different approach.

B. Antitrust Laws Promote Competition To Serve a Variety of Interests

Legislative history reveals that the idea that “Congress designed the Sherman Act as a ‘consumer welfare prescription’” is wrong. Congress enacted antitrust laws to rein in the power of industrial trusts, the large business organizations that had emerged in the late nineteenth century. Responding to a fear

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151. Heaps of scholarship delve into this legislative history. See, e.g., sources cited supra note 38.
of concentrated power, antitrust sought to distribute it. In this sense, antitrust was “guided by principles.”\textsuperscript{152} The law was “for diversity and access to markets; it was against high concentration and abuses of power.”\textsuperscript{153}

More relevant than any single goal was this general vision. When Congress passed the Sherman Act in 1890, Senator John Sherman called it “a bill of rights, a charter of liberty,” and stressed its importance in political terms.\textsuperscript{154} On the floor of the Senate he declared,

If we will not endure a king as a political power, we should not endure a king over the production, transportation, and sale of any of the necessities of life. If we would not submit to an emperor, we should not submit to an autocrat of trade, with power to prevent competition and to fix the price of any commodity.\textsuperscript{155}

In other words, what was at stake in keeping markets open—and keeping them free from industrial monarchs—was freedom.

Animating this vision was the understanding that concentration of economic power also consolidates political power, “breed[ing] antidemocratic political pressures.”\textsuperscript{156} This would occur through enabling a small minority to amass outsized wealth, which they could then use to influence government. But it would also occur by permitting “private discretion by a few in the economic sphere” to “control[] the welfare of all,” undermining individual and business freedom.\textsuperscript{157} In the lead up to the passage of the Sherman Act, Senator George Hoar warned that monopolies were “a menace to republican institutions themselves.”\textsuperscript{158}

This vision encompassed a variety of ends. For one, competition policy would prevent large firms from extracting wealth from producers and consumers in the form of monopoly profits.\textsuperscript{159} Senator Sherman, for example, described overcharges by monopolists as “extortion which makes the people poor,”\textsuperscript{160} while Senator Richard Coke referred to them as “robbery.”\textsuperscript{161} Repre-

\textsuperscript{152} Eleanor Fox, Against Goals, 81 FORDHAM L. REV. 2158, 2158 (2013).
\textsuperscript{153} Id.
\textsuperscript{154} 21 Cong. Rec. 2461 (1890) (statement of Sen. Sherman).
\textsuperscript{155} Id. at 2457 (statement of Sen. Sherman).
\textsuperscript{157} Id.
\textsuperscript{158} 21 Cong. Rec. 3146 (1890) (statement of Sen. Hoar).
\textsuperscript{159} Lande, Wealth Transfers, supra note 38, at 96–97.
sentative John Heard announced that trusts had “stolen millions from the people,” and Congressman Ezra Taylor noted that the beef trust “robs the farmer on the one hand and the consumer on the other.” In the words of Senator James George, “[t]hey aggregate to themselves great enormous wealth by extortion which makes the people poor.”

Notably, this focus on wealth transfers was not solely economic. Leading up to the passage of the Sherman Act, price levels in the United States were stable or slowly decreasing. If the exclusive concern had been higher prices, then Congress could have focused on those industries where prices were, indeed, high or still rising. The fact that Congress chose to denounce unjust redistribution suggests that something else was at play — namely, that the public was “angered less by the reduction in their wealth than by the way in which the wealth was extracted.” In other words, though the harm was being registered through an economic effect—a wealth transfer—the underlying source of the grievance was also political.

Another distinct goal was to preserve open markets, in order to ensure that new businesses and entrepreneurs had a fair shot at entry. Several Congressmen advocated for the Federal Trade Commission Act because it would help promote small business. Senator James Reed expressly noted that Congress’s aim in passing the law was to keep markets open to independent firms. When discussing the Sherman Act, Senator George lamented that if large-scale

161. Id. at 2614 (statement of Sen. Coke).
162. Id. at 4101 (statement of Rep. Heard).
163. Id. at 4098 (statement of Rep. Taylor).
164. Id. at 2461 (statement of Sen. Sherman, quoting Sen. George).
166. Id. at 98.
167. For a seminal discussion of why antitrust laws must take political values into account, see Pitofsky, supra note 156, at 1051 (“It is bad history, bad policy, and bad law to exclude certain political values in interpreting the antitrust laws. By ‘political values,’ I mean, first, a fear that excessive concentration of economic power will breed antidemocratic political pressures, and second, a desire to enhance individual and business freedom by reducing the range within which private discretion by a few in the economic sphere controls the welfare of all. A third and overriding political concern is that if the free-market sector of the economy is allowed to develop under antitrust rules that are blind to all but economic concerns, the likely result will be an economy so dominated by a few corporate giants that it will be impossible for the state not to play a more intrusive role in economic affairs.”).
168. 51 CONG. REC. 13,231 (1914) (statement of Sen. Reed).
industry were allowed to grow unchecked, it would “crush out all small men, all small capitalists, all small enterprises.”

Through the 1950s, courts and enforcers applied antitrust laws to promote this variety of aims. While the vigor and tenor of enforcement varied, there was an overarching understanding that antitrust served to protect what Justice Louis Brandeis called “industrial liberty.” Key to this vision was the recognition that excessive concentrations of private power posed a public threat, empowering the interests of a few to steer collective outcomes. “Power that controls the economy should be in the hands of elected representatives of the people, not in the hands of an industrial oligarchy,” Justice William O. Douglas wrote. Decentralizing this power would ensure that “the fortunes of the people will not be dependent on the whim or caprice, the political prejudice, the emotional stability of a few self-appointed men.”

As described in Part I, Chicago School scholars upended this traditional approach, concluding that the only legitimate goal of antitrust is consumer welfare, best promoted through enhancing economic efficiency. Notably, some prominent liberals—including John Kenneth Galbraith—ratified this idea, championing centralization. In the wake of high inflation in the 1970s, Ralph Nader and other consumer advocates also came to support an antitrust regime centered on lower prices, according with the Chicago School’s view. By orienting antitrust toward material rather than political ends, both the neoclassical school and its critics effectively embraced concentration over competition.

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172. Id.
173. In Economics and the Public Purpose, Galbraith concluded that centralized planning, rather than open markets, was the best way to stabilize industries and boost prosperity. John Kenneth Galbraith, Economics and the Public Purpose 55 (1973).
174. See Michael Sandel, Democracy’s Discontent 246 (1996) (“Although Nader and his followers did not disparage, as did Bork, the civic tradition of antitrust, they too rested their arguments on considerations of consumer welfare . . . . According to Nader, the ‘modern relevance’ of traditional antitrust wisdom lay in its consequences for ‘the prices people pay for their bread, gasoline, auto parts, prescription drugs, and houses.’”).
Focusing antitrust exclusively on consumer welfare is a mistake. For one, it betrays legislative intent, which makes clear that Congress passed antitrust laws to safeguard against excessive concentrations of economic power. This vision promotes a variety of aims, including the preservation of open markets, the protection of producers and consumers from monopoly abuse, and the dispersion of political and economic control. Secondly, focusing on consumer welfare disregards the host of other ways that excessive concentration can harm us—enabling firms to squeeze suppliers and producers, endangering system stability (for instance, by allowing companies to become too big to fail), or undermining media diversity, to name a few. Protecting this range of inter-

176. I am by no means alone in arguing this. See, e.g., BARRY C. LYNN, CORNERED: THE NEW MONOPOLY CAPITALISM AND THE ECONOMICS OF DESTRUCTION (2010); FOX, supra note 38, at 1153-54; Maurice E. Stucke, Better Competition Advocacy, 82 ST. JOHN’S L. REV. 951, 993 (2008); Stucke, supra note 38, at 564.

177. For a more recent argument in favor of rebalancing antitrust away from technocracy and toward democracy, see Harry First & Spencer Weber Waller, Antitrust’s Democracy Deficit, 81 FORDHAM L. REV. 2543, 2544 (2013) (“[A]ntitrust is also public law designed to serve public ends. Today’s unbalanced system puts too much control in the hands of technical experts, moving antitrust enforcement too far away from its democratic roots.”).

178. See Fox, supra note 38, at 1153-54 (“Rather than standing for efficiency, the American antitrust laws stand against private power. Distrust of power is the one central and common ground that over time has unified support for antitrust statutes. Interests of consumers have been a recurrent concern because consumers have been perceived as victims of the abuse of too much power. Interests of entrepreneurs and small business have been a recurrent concern because independent entrepreneurs have been seen as the heart and lifeblood of American enterprise, and freedom of economic activity and opportunity has been thought central to the preservation of the American free enterprise system. One overarching idea has unified these three concerns (distrust of power, concern for consumers, and commitment to opportunity of entrepreneurs): competition as process. The competition process is the preferred governor of markets. If the impersonal forces of competition, rather than public or private power, determine market behavior and outcomes, power is by definition dispersed, opportunities and incentives for firms without market power are increased, and the results are acceptable and fair.” (citations omitted)).

179. For more on this connection, see SIMON JOHNSON & JAMES KWAK, 13 BANKERS: THE WALL STREET TAKEOVER AND THE NEXT FINANCIAL MELTDOWN (2011); and LYNN, supra note 176.

ests requires an approach to antitrust that focuses on the neutrality of the competitive process and the openness of market structures.

C. Promoting Competition Requires Analysis of Process and Structure

The Chicago School’s embrace of consumer welfare as the sole goal of antitrust is problematic for at least two reasons. First, as described in Section II.B, this idea contravenes legislative history, which shows that Congress passed antitrust laws to safeguard against excessive concentrations of private power. It recognized, in turn, that this vision would protect a host of interests, which the sole focus on “consumer welfare” disregards. Second, by adopting this new goal, the Chicago School shifted the analytical emphasis away from process—the conditions necessary for competition—and toward an outcome—namely, consumer welfare. 181 In other words, a concern about structure (is power sufficiently distributed to keep markets competitive?) was replaced by a calculation (did prices rise?). 182 This approach is inadequate to promote real competition, a failure that is amplified in the case of dominant online platforms.

Antitrust doctrine has evolved to reflect this redefinition. The recoupment requirement in predatory pricing, for example, reflects the idea that competition is harmed only if the predator can ultimately charge consumers supra-competitive prices. 183 This logic is agnostic about process and structure; it measures the health of competition primarily through effects on price and output. The same is true in the case of vertical integration. The modern view of integration largely assumes away barriers to entry, an element of structure, presuming that any advantages enjoyed by the integrated firm trace back to efficiencies. 184

More generally, modern doctrine assumes that market power is not inherently harmful and instead may result from and generate efficiencies. In practice, this presumes that market power is benign unless it leads to higher prices or re-

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181. See Fox, supra note 152.
183. See supra Section I.A.
184. See BORK, supra note 32, at 278 (“Absent the power to restrict output, the decision to eliminate rivalry can only be made in order to achieve efficiency.”); see supra Section I.B.
duced output—again glossing over questions about the competitive process in favor of narrow calculations. In other words, this approach equates harm entirely with whether a firm chooses to exercise its market power through price-based levers, while disregarding whether a firm has developed this power, distorting the competitive process in some other way. But allowing firms to amass market power makes it more difficult to meaningfully check that power when it is eventually exercised. Companies may exploit their market power in a host of competition-distorting ways that do not directly lead to short-term price and output effects.

I propose that a better way to understand competition is by focusing on competitive process and market structure. By arguing for a focus on market structure, I am not advocating a strict return to the structure-conduct-performance paradigm. Instead, I claim that seeking to assess competition without acknowledging the role of structure is misguided. This is because the best guardian of competition is a competitive process, and whether a market is competitive is inextricably linked to—even if not solely determined by—how that market is structured. In other words, an analysis of the competitive process and market structure will offer better insight into the state of competition than do measures of welfare.

Moreover, this approach would better protect the range of interests that Congress sought to promote through preserving competitive markets, as described in Section II.B. Foundational to these interests is the distribution of ownership and control—inescapably a question of structure. Promoting a competitive process also minimizes the need for regulatory involvement. A focus on

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185. See Hovenkamp, supra note 57, at 359 (“[T]he guiding principle of the Chicago School critique of the S-C-P paradigm was that market power is not inherently a bad thing. Indeed, often market power as well as high concentration result from efficiency.”).

186. One line of argument holds that the concentration of private control—and the power it hands to a few over our economy—is itself problematic, and if and how those wielding this power choose to exercise it is beside the point. See, e.g., United States v. Columbia Steel Co., 334 U.S. 495, 536 (1948) (Douglas, J., dissenting) (“In final analysis, size in steel is the measure of the power of a handful of men over our economy. That power can be utilized with lightning speed. It can be benign or it can be dangerous. The philosophy of the Sherman Act is that it should not exist.”).

187. I am not the first to argue that preserving a competitive process is vital to promoting competition. See, e.g., Fox, supra note 38, at 1152-54. Instead, my contribution here is in (1) identifying how a consumer welfare-based approach is failing to detect and deter anticompetitive harms in the context of internet platforms, thereby (2) highlighting the need for a process-based approach as applied to internet platforms, and (3) detailing that this process-based approach would pay particular attention to entry barriers, conflicts of interest, the emergence of gatekeepers and bottlenecks, the use of and control over data, and dynamics of bargaining power.
process assigns government the task of creating background conditions, rather than intervening to manufacture or interfere with outcomes.188

In practice, adopting this approach would involve assessing a range of factors that give insight into the neutrality of the competitive process and the openness of the market. These factors include: (1) entry barriers, (2) conflicts of interest, (3) the emergence of gatekeepers or bottlenecks, (4) the use of and control over data, and (5) the dynamics of bargaining power. An approach that took these factors seriously would involve an assessment of how a market is structured and whether a single firm had acquired sufficient power to distort competitive outcomes.189 Key questions involving these factors would be: What lines of business is a firm involved in and how do these lines of business interact? Does the structure of the market create or reflect dependencies? Has a dominant player emerged as a gatekeeper so as to risk distorting competition?

Attention to structural concerns and the competitive process are especially important in the context of online platforms, where price-based measures of competition are inadequate to capture market dynamics, particularly given the role and use of data.190 As internet platforms mediate a growing share of both communications and commercial activity, ensuring that our framework fits how competition actually works in these markets is vital. Below I document facets of Amazon’s power, trace the source of its growth, and analyze the effects of its dominance. Doing so through the lens of structure and process enables us to make sense of the company’s strategy and illuminates anticompetitive aspects of its business.

III. AMAZON’S BUSINESS STRATEGY

Amazon has established dominance as an online platform thanks to two elements of its business strategy: a willingness to sustain losses and invest ag-

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188. This is one line of argument President Franklin Roosevelt offered in favor of robust antitrust. In a 1938 speech to Congress he said, “The enforcement of free competition is the least regulation business can expect.” Franklin D. Roosevelt, Message to Congress on Curbing Monopolies, Am. Presidency Project http://www.presidency.ucsb.edu/ws/?pid=15637 [http://perma.cc/WP9P-83RF].

189. By “distorting,” I mean that a single player has enough control to dictate outcomes. This is the definition offered by Milton Friedman, a figure popular with the neoclassical school. See MILTON FRIEDMAN, CAPITALISM AND FREEDOM 119-20 (2002) (“Monopoly exists when a specific individual or enterprise has sufficient control over a particular product or service to determine significantly the terms on which other individuals shall have access to it.”). The Chicago School accepts this definition with regard to price and output, but ignores other metrics of control.

190. See STUCKE & GRUNES, supra note 47, at 107-09.
gressively at the expense of profits, and integration across multiple business lines.\textsuperscript{191} These facets of its strategy are independently significant and closely interlinked—indeed, one way it has been able to expand into so many areas is through foregoing returns. This strategy—pursuing market share at the expense of short-term returns—defies the Chicago School’s assumption of rational, profit-seeking market actors. More significantly, Amazon’s choice to pursue heavy losses while also integrating across sectors suggests that in order to fully understand the company and the structural power it is amassing, we must view it as an integrated entity. Seeking to gauge the firm’s market role by isolating a particular line of business and assessing prices in that segment fails to capture both (1) the true shape of the company’s dominance and (2) the ways in which it is able to leverage advantages gained in one sector to boost its business in another.

\textbf{A. Willingness To Forego Profits To Establish Dominance}

Recently, Amazon has started reporting consistent profits, largely due to the success of Amazon Web Services, its cloud computing business.\textsuperscript{192} Its North America retail business runs on much thinner margins, and its international retail business still runs at a loss.\textsuperscript{193} But for the vast majority of its twenty years in business, losses—not profits—were the norm. Through 2013, Amazon had generated a positive net income in just over half of its financial reporting quarters. Even in quarters in which it did enter the black, its margins were razor-thin, despite astounding growth. The graph below captures the general trend.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{191} I am using “dominance” to connote that the company controls a significant share of market activity in a sector. I do not mean to attach the legal significance that sometimes attends “dominance.”
\item \textsuperscript{192} See Greg Bensinger, \textit{Cloud Unit Pushes Amazon To Record Profit}, \textsc{Wall St. J.} (Apr. 28, 2016, 7:31 PM), \url{http://www.wsj.com/articles/amazon-reports-surge-in-profit-1461874333} ([http://perma.cc/L4QS-RJ26] (“The cloud division’s sales rose 64% to \$2.57 billion. While that is less than one-tenth of Amazon’s overall revenue, [Amazon Web Services] generated 67% of the company’s operating income in the quarter.”).\textsuperscript{193} Id.
\end{itemize}
\end{footnotesize}
Just as striking as Amazon’s lack of interest in generating profit has been investors’ willingness to back the company.\textsuperscript{195} With the exception of a few quarters in 2014, Amazon’s shareholders have poured money in despite the company’s penchant for losses. On a regular basis, Amazon would report losses, and its share price would soar.\textsuperscript{196} As one analyst told the \textit{New York Times},

\begin{figure}
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\caption{Amazon’s Prices\textsuperscript{194}}
\end{figure}


\textsuperscript{195} See Streitfeld, \textit{supra} note 1 (“In its 16 years as a public company, Amazon has received unique permission from Wall Street to concentrate on expanding its infrastructure, increasing revenue at the expense of profit. Stockholders have pushed Amazon shares up to a record level, even though the company makes only pocket change. Profits were always promised tomorrow.”).

“Amazon’s stock price doesn’t seem to be correlated to its actual experience in any way.”197

Analysts and reporters have spilled substantial ink seeking to understand the phenomenon. As one commentator joked in a widely circulated post, “Amazon, as best I can tell, is a charitable organization being run by elements of the investment community for the benefit of consumers.”198

In some ways, the puzzlement is for naught: Amazon’s trajectory reflects the business philosophy that Bezos outlined from the start. In his first letter to shareholders, Bezos wrote:

We believe that a fundamental measure of our success will be the shareholder value we create over the long term. This value will be a direct result of our ability to extend and solidify our current market leadership position . . . . We first measure ourselves in terms of the metrics most indicative of our market leadership: customer and revenue growth, the degree to which our customers continue to purchase from us on a repeat basis, and the strength of our brand. We have invested and will continue to invest aggressively to expand and leverage our customer base, brand, and infrastructure as we move to establish an enduring franchise.199

In other words, the premise of Amazon’s business model was to establish scale. To achieve scale, the company prioritized growth. Under this approach, aggressive investing would be key, even if that involved slashing prices or spending billions on expanding capacity, in order to become consumers’ one-stop-shop. This approach meant that Amazon “may make decisions and weigh tradeoffs differently than some companies,” Bezos warned.200 “At this stage, we


200. Id. at 2.
choose to prioritize growth because we believe that scale is central to achieving
the potential of our business model.”

The insistent emphasis on “market leadership” (Bezos relies on the term six
times in the short letter) signaled that Amazon intended to dominate. And,
by many measures, Amazon has succeeded. Its year-on-year revenue growth far
outpaces that of other online retailers. Despite efforts by big-box competitors
like Walmart, Sears, and Macy’s to boost their online operations, no rival
has succeeded in winning back market share.

One of the primary ways Amazon has built a huge edge is through Amazon
Prime, the company’s loyalty program, in which Amazon has invested aggres-
sively. Initiated in 2005, Amazon Prime began by offering consumers unlimited
two-day shipping for $79. In the years since, Amazon has bundled in other
deals and perks, like renting e-books and streaming music and video, as well as
one-hour or same-day delivery. The program has arguably been the retailer’s
single biggest driver of growth. Amazon does not disclose the exact number

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201 Id.
202 Id. at 1-2.

204 See Phil Wahba, This Chart Shows Just How Dominant Amazon Is, FORTUNE (Nov. 6, 2015, 11:48 AM), http://fortune.com/2015/11/06/amazon-retailers-e-commerce [http://perma.cc/9YPV-SKM5]. The fact that Amazon was exempt from sales taxes for the first fifteen years of its existence gave it an 8-10% price advantage over brick-and-mortar stores. Its pricing lead over both traditional and online retailers, however, has been and still continues to be far greater than 8-10%. A review of a new price comparison tool stated: “And, as expected, it reported that Amazon indeed had the best prices for nearly everything we searched.” Zach Epstein, Amazon Isn’t Always the Cheapest Option—Here’s How To Find the Best Prices, BGR (July 17, 2014, 12:55 PM), http://bgr.com/2014/07/17/amazon-price-comparison-tool-lowest-price [http://perma.cc/J7P3-BBY5].


206 It has also been a key force driving up Amazon’s stock price. “Analysts describe Prime as one of the main factors driving Amazon’s stock price – up 296 percent in the last two years – and the main reason Amazon’s sales grew 30 percent during the recession while other retailers flailed.” Brad Stone, What’s in Amazon’s Box? Instant Gratification, BLOOMBERG BUSINESSWEEK (Nov. 24, 2010, 5:00 PM), http://www.bloomberg.com/news/articles/2010-11-24/whats-in-amazons-box-instant-gratification [http://perma.cc/Q7VL-95DQ]; see also
of Prime subscribers, but analysts believe the number of users has reached 63 million—19 million more than in 2015.207 Membership doubled between 2011 and 2013; analysts expect it to “easily double again by 2017.”208 By 2020, it is estimated that half of U.S. households may be enrolled.209

As with its other ventures, Amazon lost money on Prime to gain buy-in. In 2011 it was estimated that each Prime subscriber cost Amazon at least $90 a year—$55 in shipping, $35 in digital video—and that the company therefore took an $11 loss annually for each customer.210 One Amazon expert tallies that Amazon has been losing $1 billion to $2 billion a year on Prime memberships.211 The full cost of Amazon Prime is steeper yet, given that the company has been investing heavily in warehouses, delivery facilities, and trucks, as part of its plan to speed up delivery for Prime customers—expenditures that regularly push it into the red.212

Despite these losses—or perhaps because of them—Prime is considered crucial to Amazon’s growth as an online retailer. According to analysts, custom-

As a result, Amazon Prime users are both more likely to buy on its platform and less likely to shop elsewhere. “[Sixty-three percent] of Amazon Prime members carry out a paid transaction on the site in the same visit,” compared to 13% of non-Prime members.\footnote{Clare O’Connor, \textit{Walmart and Target Being Crowded Out Online by Amazon Prime}, \textit{FORBES} (Apr. 6, 2015, 12:59 PM), http://www.forbes.com/sites/clareoconnor/2015/04/06/walmart-and-target-being-crowded-out-online-by-amazon-prime [http://perma.cc/CMzE-GPER].} For Walmart and Target, those figures are 5% and 2% respectively.\footnote{Id.} One study found that less than 1% of Amazon Prime members are likely to consider competitor retail sites in the same shopping session. Non-Prime members, meanwhile, are eight times more likely than Prime members to shop between both Amazon and Target in the same session.\footnote{Id.} In the words of one former Amazon employee who worked on the Prime team, “It was never about the $79. It was really about changing people’s mentality so
they wouldn’t shop anywhere else.” In that regard, Amazon Prime seems to have proven successful.221

In 2014, Amazon hiked its Prime membership fee to $99.223 The move prompted some consumer ire, but 95% of Prime members surveyed said they would either definitely or probably renew their membership regardless,224 suggesting that Amazon has created significant buy-in and that no competitor is currently offering a comparably valuable service at a lower price. It may, however, also reveal the general stickiness of online shopping patterns. Although competition for online services may seem to be “just one click away,” research drawing on behavioral tendencies shows that the “switching cost” of changing web services can, in fact, be quite high.225

No doubt, Amazon’s dominance stems in part from its first-mover advantage as a pioneer of large-scale online commerce. But in several key ways, Amazon has achieved its position through deeply cutting prices and investing heavily in growing its operations—both at the expense of profits. The fact that Amazon has been willing to forego profits for growth undercuts a central premise of contemporary predatory pricing doctrine, which assumes that predation is irrational precisely because firms prioritize profits over growth.226 In this way, Amazon’s strategy has enabled it to use predatory pricing tactics without triggering the scrutiny of predatory pricing laws.

221. Stone, supra note 206.

222. See Tuttle, supra note 217 (“What this program has done is something that’s normally very difficult to accomplish: It’s changed consumer habits, and, perhaps even more remarkably, it’s changed them in ways that solely favor Amazon. The service is better than any freebie promotion, which even if it’s good at driving traffic to the website, is short-lived. Instead, the Prime membership program gets consumers in the regular habit of at least checking with Amazon before making any online purchase.”).


225. See Adam Candeub, Behavioral Economics, Internet Search, and Antitrust, 9 I/S 407, 409 (2014) (“[O]nline market behavior may differ from the brick and mortar world . . . . In particular, behavioral tendencies related to habit and information costs may disrupt conventional economic assumptions.”).

B. Expansion into Multiple Business Lines

Another key element of Amazon's strategy—and one partly enabled by its capacity to thrive despite posting losses—has been to expand aggressively into multiple business lines. In addition to being a retailer, Amazon is a marketing platform, a delivery and logistics network, a payment service, a credit lender, an auction house, a major book publisher, a producer of television and films, a fashion designer, a hardware manufacturer, and a leading provider of cloud server space and computing power. For the most part, Amazon has expanded into these areas by acquiring existing firms.

Involvement in multiple, related business lines means that, in many instances, Amazon's rivals are also its customers. The retailers that compete with it to sell goods may also use its delivery services, for example, and the media companies that compete with it to produce or market content may also use its platform or cloud infrastructure. At a basic level this arrangement creates conflicts of interest, given that Amazon is positioned to favor its own products over those of its competitors.

Critically, not only has Amazon integrated across select lines of business, but it has also emerged as central infrastructure for the internet economy. Reports suggest this was part of Bezos's vision from the start. According to early

227. Indeed, to get a sense of Amazon's breadth, it is helpful to see the range of actors Amazon lists among its "current and potential competitors":

(1) online, offline, and multichannel retailers, publishers, vendors, distributors, manufacturers, and producers of the products we offer and sell to consumers and businesses; (2) publishers, producers, and distributors of physical, digital, and interactive media of all types and all distribution channels; (3) web search engines, comparison shopping websites, social networks, web portals, and other online and app-based means of discovering, using, or acquiring goods and services, either directly or in collaboration with other retailers; (4) companies that provide e-commerce services, including website development, advertising, fulfillment, customer service, and payment processing; (5) companies that provide fulfillment and logistics services for themselves or for third parties, whether online or offline; (6) companies that provide information technology services or products, including on-premises or cloud-based infrastructure and other services; and (7) companies that design, manufacture, market, or sell consumer electronics, telecommunication, and electronic devices.


228. See generally id. (describing Amazon's businesses).

229. As of 2012, Amazon had acquired or invested in over seventy companies. See SUCHARITA MULPURU & BRIAN K. WALKER, FORRESTER, WHY AMAZON MATTERS NOW MORE THAN EVER 5 (2012).
Amazon employees, when the CEO founded the business, “his underlying goals were not to build an online bookstore or an online retailer, but rather a ‘utility’ that would become essential to commerce.” In other words, Bezos’s target customer was not only end-consumers but also other businesses.

Amazon controls key critical infrastructure for the Internet economy—in ways that are difficult for new entrants to replicate or compete against. This gives the company a key advantage over its rivals: Amazon’s competitors have come to depend on it. Like its willingness to sustain losses, this feature of Amazon’s power largely confounds contemporary antitrust analysis, which assumes that rational firms seek to drive their rivals out of business. Amazon’s game is more sophisticated. By making itself indispensable to e-commerce, Amazon enjoys receiving business from its rivals, even as it competes with them. Moreover, Amazon gleans information from these competitors as a service provider that it may use to gain a further advantage over them as rivals—enabling it to further entrench its dominant position.

IV. ESTABLISHING STRUCTURAL DOMINANCE

Amazon now controls 46% of all e-commerce in the United States. Not only is it the fastest-growing major retailer, but it is also growing faster than e-commerce as a whole. In 2010, it employed 33,700 workers; by June 2016, it had 268,900. It is enjoying rapid success even in sectors that it only recently entered. For example, the company “is expected to triple its share of the U.S. apparel market over the next five years.” Its clothing sales recently rose by

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230. Id. at 17.
231. See LaVecchia & Mitchell, supra note 6, at 1.
232. Tiernan Ray, Amazon: All Retail’s SKUs Are Belong to Them, Goldman Tells CNBC, BARRONS: TECH TRADER DAILY (June 16, 2016, 11:40 AM), http://blogs.barrons.com/techtraderdaily/2016/06/16/amazon-all-retails-skus-are-belong-to-them-goldman-tells-cnbc [http://perma.cc/Z95R-JYGR] (quoting a Goldman Sachs analyst as saying, “[p]rojected e-commerce growth of 22% this year is largely thanks to Amazon,” and “Amazon ‘is going to outgrow that,’ with perhaps ‘mid to high 20s growth,’ . . . given ‘Amazon is taking share, and seeing acceleration in their international business’”). See generally Leonard, supra note 207 (“Amazon’s growth has been preposterous . . . . The company is the fifth-most valuable in the world: Its market capitalization is about $366 billion, which is roughly equal to the combined worth of Walmart, FedEx, and Boeing.”).
233. Leonard, supra note 207.
$1.1 billion—even as online sales at the six largest U.S. department stores fell by over $500 million.\footnote{Id.}

These figures alone are daunting, but they do not capture the full extent of Amazon’s role and power. Amazon’s willingness to sustain losses and invest aggressively at the expense of profits, coupled with its integration across sectors, has enabled it to establish a dominant structural role in the market.

In the Sections that follow, I describe several examples of Amazon’s conduct that illustrate how the firm has established structural dominance.\footnote{Supra note 191.} These examples—its handling of e-books and its battle with an independent online retailer—focus on predatory pricing practices. These cases suggest ways in which Amazon may benefit from predatory pricing even if the company does not raise the price of the goods on which it lost money. The other examples, Fulfillment-by-Amzon and Amazon Marketplace, demonstrate how Amazon has become an infrastructure company, both for physical delivery and e-commerce, and how this vertical integration implicates market competition. These cases highlight how Amazon can use its role as an infrastructure provider to benefit its other lines of business. These examples also demonstrate how high barriers to entry may make it difficult for potential competitors to enter these spheres, locking in Amazon’s dominance for the foreseeable future. All four of these accounts raise concerns about contemporary antitrust’s ability to register and address the anticompetitive threat posed by Amazon and other dominant online platforms.

\textit{A. Below-Cost Pricing of Bestseller E-Books and the Limits of Modern Recoupment Analysis}

Amazon entered the e-book market by pricing bestsellers below cost. Although this strategic pricing helped Amazon to establish dominance in the e-book market, the government perceived Amazon’s cost cutting as benign, focusing on the profitability of e-books in the aggregate and characterizing the company’s pricing of bestsellers as “loss leading” rather than predatory pricing. This failure to recognize Amazon’s conduct as anticompetitive stems from a misunderstanding of online markets generally and of Amazon’s strategy specifically. Additionally, analyzing the issues raised in this case suggests that Amazon
could recoup its losses through means not captured by current antitrust analysis.

In late 2007, Amazon rolled out the Kindle, its e-reading device, and launched a new e-book library.\textsuperscript{237} Before introducing the device, CEO Jeff Bezos had decided to price bestseller e-books at $9.99,\textsuperscript{238} significantly below the $12 to $30 that a new hardback typically costs.\textsuperscript{239} Critically, the wholesale price at which Amazon was buying books from publishers had not dropped; it was instead choosing to price e-books below cost.\textsuperscript{240} Analysts estimate that Amazon sold the Kindle device below manufacturing cost too.\textsuperscript{241} Bezos’s plan was to dominate the e-book selling business in the way that Apple had become the go-to platform for digital music.\textsuperscript{242} The strategy worked: through 2009, Amazon dominated the e-book retail market, selling around 90% of all e-books.\textsuperscript{243}


\textsuperscript{238} See id.


\textsuperscript{240} Prior to 2009, many publishers set a wholesale price for e-books at a 20% discount from the equivalent physical book, at which point Amazon’s $9.99 price point roughly matched the wholesale price of many of its e-books. In 2009, publishers eliminated the wholesale discount, yet Amazon continued to price e-books at $9.99. This is the point at which it clearly sold e-books below cost. See United States v. Apple, Inc., 952 F. Supp. 2d 638, 649-50 (S.D.N.Y. 2013); see also Packer, supra note 239 (“The price was below wholesale in some cases, and so low that it represented a serious threat to the market in twenty-six-dollar hardcovers.”); Jeffrey A. Trachtenberg, E-Book Sales Fall After New Amazon Contracts, WALL ST. J. (Sept. 3, 2015), http://www.wsj.com/article_email/e-book-sales-weaken-amid-higher-prices-1441307826-lMyQjAxMTEiMzAsNDUwMjQzWj [http://perma.cc/LVZ9-DK9Y] (“Amazon was willing to buy a title for $14.99 and sell it for $9.99, taking a loss to grab market share and encourage adoption of its Kindle e-reader.”).


\textsuperscript{242} See Packer, supra note 239 (“In the mid-aughts, Bezos, having watched Apple take over the music-selling business with iTunes and the iPod, became determined not to let the same thing happen with books. In 2004, he set up a lab in Silicon Valley that would build Amazon’s first piece of consumer hardware: a device for reading digital books. According to Stone’s book, Bezos told the executive running the project, ‘Proceed as if your goal is to put everyone selling physical books out of a job.’”).

\textsuperscript{243} Apple, 952 F. Supp. 2d at 649.
Publishers, fearing that Amazon’s $9.99 price point for e-books would permanently drive down the price that consumers were willing to pay for all books, sought to wrest back some control. When the opportunity came to partner with Apple to sell e-books through the iBookstore store, five of the “Big Six” publishers introduced agency pricing, whereby publishers would set the final retail price and Apple would get a 30% cut. After securing this deal, MacMillan, one of the “Big Six,” demanded that Amazon, too, adopt this pricing model. Though it initially refused and delisted MacMillan’s books, Amazon ultimately relented, explaining to readers that “we will have to capitulate and accept Macmillan’s terms because Macmillan has a monopoly over their own titles.” Other publishers followed suit, halting Amazon’s ability to price e-books at $9.99.

In 2012, the DOJ sued the publishers and Apple for colluding to raise e-book prices. In response to claims that the DOJ was going after the wrong actor—given that it was Amazon’s predatory tactics that drove the publishers and Apple to join forces—the DOJ investigated Amazon’s pricing strategies and found “persuasive evidence lacking” to show that the company had engaged in predatory practices. According to the government, “from the time of its launch, Amazon’s e-book distribution business has been consistently profitable, even when substantially discounting some newly released and bestselling titles.”

Judge Cote, who presided over the district court trial, refrained from affirming the government’s conclusion. Still, the government’s argument illustrates the dominant framework that courts and enforcers use to analyze predation—and how it falls short. Specifically, the government erred by analyzing...
the profitability of Amazon's e-book business in the aggregate and by characterizing the conduct as “loss leading” rather than potentially predatory pricing. These missteps suggest a failure to appreciate two critical aspects of Amazon's practices: (1) how steep discounting by a firm on a platform-based product creates a higher risk that the firm will generate monopoly power than discounting on non-platform goods and (2) the multiple ways Amazon could recoup losses in ways other than raising the price of the same e-books that it discounted.

On the first point, the government argued that Amazon was not engaging in predation because in the aggregate, Amazon's e-books business was profitable. This perspective overlooks how heavy losses on particular lines of e-books (bestsellers, for example, or new releases) may have thwarted competition, even if the e-books business as a whole was profitable. That the DOJ chose to define the relevant market as e-books—rather than as specific lines, like best-seller e-books—reflects a deeper mistake: the failure to recognize how the economics of platform-based products differ in crucial ways from non-platform goods. As a result, the DOJ analyzed the e-book market as it would the market for physical books.

One indication of this failure to appreciate the difference between physical books and e-books is that the government and Judge Cote treated Amazon's below-cost pricing as loss leading, rather than as predatory pricing. The difference between loss leading and predatory pricing is not spelled out in law, but the distinction turns on the nature of the below-cost pricing, specifically its intensity and the intent motivating it. Judge Cote's use of “loss leading” revealed a view that “Amazon's below-cost pricing was (a) selective rather than pervasive, and (b) not intended to generate monopoly power.” On this view,

253. See id. at 650 (noting that Amazon “continued to sell many NYT Bestsellers as loss leaders”); Complaint, supra note 251, at 9 (“From the time of its launch, Amazon’s e-book distribution business has been consistently profitable, even when substantially discounting some newly released and bestselling titles.”); Response of Plaintiff United States to Public Comments on the Proposed Final Judgment, supra note 250, at 21-22.


255. Traditionally, a retailer loss-leads when it prices one good below cost in order to sell more of another good, assuming that discounts on one good will attract and retain consumers. Walmart choosing to price t-shirts below cost to sell more shorts would be an example of loss leading.


257. Id. at 39.
Amazon's aim was to trigger additional sales of other products sold by Amazon, rather than to drive out competing e-book sellers and acquire the power to increase e-book prices. In other words, because Amazon's alleged short-term aim was to sell more e-readers and e-books—rather than to harm its rivals and raise prices—its conduct is considered loss leading rather than predatory pricing. What both the DOJ and the district court missed, however, is the way in which below-cost pricing in this instance entrenched and reinforced Amazon's dominance in ways that loss leading by physical retailers does not.

Unlike with online shopping, each trip to a brick-and-mortar store is discrete. If, on Monday, Walmart heavily discounts the price of socks and you are looking to buy socks, you might visit, buy socks, and—because you are already there—also buy milk. On Thursday, the fact that Walmart had discounted socks on Monday does not necessarily exert any tug; you may return to Walmart because you now know that Walmart often has good bargains, but the fact that you purchased socks from Walmart on Monday is not, in itself, a reason to return.

Internet retail is different. Say on Monday, Amazon steeply discounts the e-book version of Harper Lee's *Go Set a Watchman*, and you purchase both a Kindle and the e-book. On Thursday, you would be inclined to revisit Amazon—and not simply because you know it has good bargains. Several factors extend the tug. For one, Amazon, like other e-book sellers, has used a scheme known as "digital rights management" (DRM), which limits the types of devices that can read certain e-book formats. Compelling readers to purchase a Kindle through cheap e-books locks them into future e-book purchases from Amazon. Moreover, buying—or even browsing—e-books on Amazon's platform...

258. See id.
259. See Cory Doctorow, *Why the Death of DRM Would Be Good News for Readers, Writers and Publishers*, GUARDIAN (May 3, 2012, 10:25 AM), http://www.theguardian.com/technology/2012/may/03/death-of-drm-good-news [http://perma.cc/H77L-7KZ8] (“If Tor sells you one of my books for the Kindle locked with Amazon’s DRM, neither I, nor Tor, can authorise you to remove that DRM. If Amazon demands a deeper discount (something Amazon has been doing with many publishers as their initial ebook distribution deals come up for renegotiation) and Tor wants to shift its preferred ebook retail to a competitor like Waterstone’s, it will have to bank on its readers being willing to buy their books all over again.”).
260. See Ana Carolina Bittar, Unlocking the Gates of Alexandria: DRM, Competition and Access to E-Books 1 (July 25, 2014) (unpublished manuscript), http://ssrn.com/abstract=2620354 [http://perma.cc/6RHH-6QM4] (“[S]ince each bookseller uses a different proprietary DRM scheme on their e-books, compatible with a limited number of reading platforms, consumers face problems with interoperability. For example, a Kindle owner cannot buy books from Barnes & Noble, and a Nook owner cannot buy books from Apple. This lack of interoperability can increase barriers to entry, switching costs, and network effects. Conse-
hands the company information about your reading habits and preferences, data the company uses to tailor recommendations and future deals.261 Replicated across a few more purchases, Amazon’s lock-in becomes strong. It becomes unlikely that a reader will then purchase a Nook and switch to buying e-books through Barnes & Noble, even if that company is slashing prices.

Put differently, loss leading pays higher returns with platform-based e-commerce—and specifically with digital products like e-books—than it does with brick-and-mortar stores. The marginal value of the first sale and early sales in general is much higher for e-books than for print books because there are lock-in effects at play, due both to technical design and the possibilities for and value of personalization.

By treating e-commerce and digital goods the same as physical stores and goods, both the government and Judge Cote missed the anticompetitive implications of Amazon’s below-cost pricing. Though the immediate effect of Amazon’s pricing of bestseller e-books may have been to sell more e-books generally, that tactic has also positioned Amazon to dominate the market in a way that sets it up to raise future prices. In this context, the traditional distinction between loss leading and predatory pricing is strained.

Instead of recognizing that the economics of platforms meant that below-cost pricing on a platform-hosted good would tend to facilitate long-term dominance, the government took comfort that the industry was “dynamic and evolving” and concluded that the “presence and continued investment by technology giants, multinational book publishers, and national retailers in e-books businesses” rendered an Amazon-dominated market unlikely.262 Yet Amazon’s early lead has, in fact, translated to long-term dominance. It controls around 65% of the e-book market today,263 while its share of the e-reader market hov-
ers around 74%. Players that appeared up-and-coming even a few years ago are now retreating from the market. Sony closed its U.S. Reader store and is no longer introducing new e-readers to the U.S. market. Barnes & Noble, meanwhile, has slashed funding for the Nook by 74%. The only real e-books competitor left standing is Apple.

Because the government deflected predatory pricing claims by looking at aggregate profitability, neither the government nor the court reached the question of recoupment. Given that—under current doctrine—whether below-cost pricing is predatory or not turns on whether a firm recoups its losses, we should examine how Amazon could use its dominance to recoup its losses in ways that are more sophisticated than what courts generally consider or are able to assess.

Most obviously, Amazon could earn back the losses it generated on bestseller e-books by raising prices of either particular lines of e-books or e-books as a whole. This intra-product market form of recoupment is what courts look for. However, it remains unclear whether Amazon has hiked e-book prices because, as the New York Times noted, “[i]t is difficult to comprehensively track the movement of prices on Amazon,” which means that any evidence of price trends is “anecdotal and fragmentary.” As Amazon customers can attest, Amazon’s prices fluctuate rapidly and with no explanation.

This underscores a basic challenge of conducting recoupment analysis with Amazon: it may not be apparent when and by how much Amazon raises prices. Online commerce enables Amazon to obscure price hikes in at least two ways:

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267. Nor is the decline of Amazon competitors unique to e-books. “Now, with Borders dead, Barnes & Noble struggling and independent booksellers greatly diminished, for many consumers there is simply no other way to get many books than through Amazon.” Streitfeld, supra note 1.
268. Id.
269. See id.

Constant price fluctuations diminish our ability to discern pricing trends. By one account, Amazon changes prices more than 2.5 million times each day.\footnote{Roberto A. Ferdman, \textit{Amazon Changes Its Prices More than 2.5 Million Times a Day}, QUARTZ (Dec. 14, 2013), \url{http://qz.com/157828/amazon-changes-its-prices-more-than-2-5-million-times-a-day} \footnote[271]{http://perma.cc/W25A-EUNP}.} Amazon is also able to tailor prices to individual consumers, known as first-degree price discrimination. There is no public evidence that Amazon is currently engaging in personalized pricing,\footnote{But recent reporting does suggest that Amazon manipulates how it presents pricing in order to favor its own products. \textit{See} Julia Angwin & Surya Mattu, \textit{Amazon Says It Puts Customers First. But Its Pricing Algorithm Doesn’t}, PROPUBLICA (Sept. 20, 2016), \url{http://www.propublica.org/article/amazon-says-it-puts-customers-first-but-its-pricing-algorithm-doesnt} \footnote[272]{http://perma.cc/RR6C-FTS4} (“\textit{The company appears to be using its market power and proprietary algorithm to advantage itself at the expense of sellers and many customers.”).} but online retailers generally are devoting significant resources to analyzing how to implement it.\footnote{\textit{See} Lina Khan, \textit{Why You Might Pay More than Your Neighbor for the Same Bottle of Salad Dressing}, QUARTZ (Jan. 19, 2014), \url{http://qz.com/168314/why-you-might-pay-more-than-your-neighbor-for-the-same-bottle-of-salad-dressing} \footnote[273]{http://perma.cc/KVL3-QCBC}.} A major topic of discussion at the 2014 National Retail Federation annual convention, for example, was how to introduce discriminatory pricing without triggering consumer backlash.\footnote{\textit{Id}.} One mechanism discussed was highly personalized coupons sent at the point of sale, which would avoid the need to show consumers different prices but would still achieve discriminatory pricing.\footnote{\textit{Id}. (“\textit{Coupons will be the doorway in to differential pricing,” said Scott Anderson, principal consultant at FICO, which provides data analytics and decision-making services. \textit{In other words, we could all end up paying significantly different amounts for the same items, even if we see the same prices while browsing.”).}}

If retailers—including Amazon—implement discriminatory pricing on a wide scale, each individual would be subject to his or her own personal price trajectory, eliminating the notion of a single pricing trend. It is not clear how we would measure price hikes for the purpose of recoupment analysis in that scenario. There would be no obvious conclusions if some consumers faced higher prices while others enjoyed lower ones. But given the magnitude and
accuracy of data that Amazon has collected on millions of users, tailored pricing is not simply a hypothetical power. Discerning whether and by how much Amazon raises book prices will be more difficult than the Matsushita or Brooke Group Courts could have imagined.

It is true that brick-and-mortar stores also collect data on customer purchasing habits and send personalized coupons. But the types of consumer behavior that internet firms can access—how long you hover your mouse on a particular item, how many days an item sits in your shopping basket before you purchase it, or the fashion blogs you visit before looking for those same items through a search engine—is uncharted ground. The degree to which a firm can tailor and personalize an online shopping experience is different in kind from the methods available to a brick-and-mortar store—precisely because the type of behavior that online firms can track is far more detailed and nuanced. And unlike brick-and-mortar stores—where everyone at least sees a common price (even if they go on to receive discounts)—internet retail enables firms to entirely personalize consumer experiences, which eliminates any collective baseline from which to gauge price increases or decreases.

The decision of which product market in which Amazon may choose to raise prices is also an open question—and one that current predatory pricing doctrine ignores. Courts generally assume that a firm will recoup by increasing prices on the same goods on which it previously lost money. But recoupment across markets is also available as a strategy, especially for firms as diversified across products and services as Amazon. Reporting suggests the company did just this in 2013, by hiking prices on scholarly and small-press books and creating the risk of a “two-tier system where some books are priced beyond an audi-

276. As a group of authors stated in a recent letter to the Justice Department:

[T]he corporation’s detailed knowledge of the buying habits of millions of readers—which it amasses through a minute-by-minute tracking of their actions online—puts it in a powerful position to use such ‘personalized’ pricing and marketing to influence the decisions of readers and thereby extract the most amount of cash possible from each individual.


277. See supra Section I.A. For accounts of how some retailers have successfully implemented discriminatory pricing online, see supra note 270 and accompanying text.
ence’s reach.”

Although Amazon may be recouping its initial losses in e-books through markups on physical books, this cross-market recoupment is not a scenario that enforcers or judges generally consider.

One possible reason for this neglect is that Chicago School scholarship, which assumes recoupment in single-product markets is unlikely, also holds recoupment in multi-product scenarios to be implausible.

Although current predatory pricing doctrine focuses only on recoupment through raising prices for consumers, Amazon could also recoup its losses by imposing higher fees on publishers. Large book retailer chains like Barnes & Noble have long used their market dominance to charge publishers for favorable product placement, such as displays in a storefront window or on a prominent table. Amazon’s dominance in the e-book market has enabled it to demand similar fees for even the most basic of services. For example, when renewing its contract with Hachette last year, Amazon demanded payments for services including the pre-order button, personalized recommendations, and an Amazon employee assigned to the publisher. In the words of one person close to the negotiations, Amazon “is very inventive about what we’d call standard service. . . . They’re teasing out all these layers and saying, ‘If you want that service, you’ll have to pay for it.’” By introducing fees on services that it previously offered for free, Amazon has created another source of revenue. Amazon’s power to demand these fees—and recoup some of the losses it sustained in below-cost pricing—stems from dominance partly built through

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278. Streitfeld, supra note 1.

279. See Phillip Areeda & Herbert Hovenkamp, Fundamentals of Antitrust Law 7-72 (2010) (“There may be cases in which a predator who makes more than one product or operates in more than one region selects only one for below-cost pricing but reaps recoupment benefits in all . . . . The courts have not dealt adequately with this problem.”); Leslie, supra note 94, at 1720 (“Courts apparently do not appreciate the prospect of recoupment in another market.”); Timothy J. Trujillo, Note, Predatory Pricing Standards Under Recent Supreme Court Decisions and Their Failure To Recognize Strategic Behavior as a Barrier to Entry, 19 J. Corp. L. 809, 813, 825 (1994) (“The . . . recoupment analysis in Matsushita, Cargill, and Brooke refers to recoupment only in the market in which the predation actually occurs. Thus, the Court’s analyses and test . . . ignore the possibility that successful predation could occur because the dominant firm can spread its gains from predation over several markets.”).

280. See Leslie, supra note 94, at 1720–21.


283. Id.
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that same below-cost pricing. The fact that Amazon has itself vertically integrated into book publishing—and hence can promote its own content—may give it additional leverage to hike fees. Any publisher that refuses could see Amazon favor its own books over the publisher’s, reflecting a conflict of interest I discuss further in Section IV.D. It is not uncommon for half of the titles on Amazon’s Kindle bestseller list to be its own.284

While not captured by current antitrust doctrine, the pressure Amazon puts on publishers merits concern.285 For one, consolidation among book sellers—partly spurred by Amazon’s pricing tactics and demands for better terms from publishers—has also spurred consolidation among publishers. Consolidation among publishers last reached its heyday in the 1990s—as publishing houses sought to bulk up in response to the growing clout of Borders and Barnes & Noble—and by the early 2000s, the industry had settled into the “Big Six.”286 This trend has cost authors and readers alike, leaving writers with fewer paths to market and readers with a less diverse marketplace. Since Amazon’s rise, the major publishers have merged further—thinning down to five, with rumors of more consolidation to come.287

Second, the increasing cost of doing business with Amazon is upending the publishers’ business model in ways that further risk sapping diversity. Traditionally, publishing houses used a cross-subsidization model whereby they would use their best sellers to subsidize weightier and riskier books requiring greater upfront investment.288 In the face of higher fees imposed by Amazon,

284. See LaVecchia & Mitchell, supra note 6, at 2.
285. Acquisition and maintenance of monopsony power are still recognized harms under the Sherman and Clayton Acts, even though few cases are brought today. But cf. Complaint at 12-13, United States v. George’s Foods, LLC, No. 11-cv-00433-gec (W.D. Va. May 10, 2011) (arguing that a company’s acquisition of a chicken complex would “substantially lessen competition for the purchase of broiler grower [chicken farmer] services . . . in violation of Section 7 of the Clayton Act”).
288. Cross-subsidization schemes can have widely different effects, depending on how the two submarkets are or are not interrelated. In Amazon’s case, losses do have cross-market effects: Amazon prices below cost in order to generate higher sales in another line of business; its
publishers say they are less able to invest in a range of books. In a recent letter to DOJ, a group of authors wrote that Amazon’s actions have “extract[ed] vital resources from the [book] industry in ways that lessen the diversity and quality of books.” The authors noted that publishers have responded to Amazon’s fees by both publishing fewer titles and focusing largely on books by celebrities and bestselling authors. The authors also noted, “Readers are presented with fewer books that espouse unusual, quirky, offbeat, or politically risky ideas, as well as books from new and unproven authors. This impoverishes America’s marketplace of ideas.”

Amazon’s conduct would be readily cognizable as a threat under the pre-Chicago School view that predatory pricing laws specifically and antitrust generally promoted a broad set of values. Under the predatory pricing jurisprudence of the early and mid-twentieth century, harm to the diversity and vibrancy of ideas in the book market may have been a primary basis for government intervention. The political risks associated with Amazon’s market dominance also implicate some of the major concerns that animate antitrust laws. For instance, the risk that Amazon may retaliate against books that it disfavors—either to impose greater pressure on publishers or for other political reasons—raises concerns about media freedom. Given that antitrust authorities previously considered diversity of speech and ideas a factor in their analysis, Amazon’s degree of control, too, should warrant concern.

Even within the narrower “consumer welfare” framework, Amazon’s attempts to recoup losses through fees on publishers should be understood as harmful. A market with less choice and diversity for readers amounts to a form of consumer injury. That DOJ ignored this concern in its suit against Apple and the publishers suggests that its conception of predatory pricing fails to captureoverlooks the full suite of harms that Amazon’s actions may cause.

losses in one market actively boost another market. By contrast, the cross-subsidization model used by publishers has no analogous crossover effects. A publisher might decide to publish an obscure book, even if it knows it will lose money, and subsidize those losses through profits made on a more popular book. However, the publisher’s choice to sustain a loss on the obscure book does not boost sales of its popular books. The major difference in Amazon’s case is that it is an online platform. The market effects across its different segments are significant in ways that do not hold for brick-and-mortar stores or other non-platform entities.

289. Letter from Authors United to William J. Baer, supra note 276.
290. Id.
291. Id.
292. That said, the DOJ did consider how rising consolidation in the media sector—specifically in the context of a proposed merger between two newspapers—would risk undermining the spread of ideas. Press Release, Office of Pub. Affairs, U.S. Dep’t of Justice, Justice Department Files Antitrust Lawsuit To Stop L.A. Times Publisher from Acquiring Competing
Amazon’s below-cost pricing in the e-book market—which enabled it to capture 65% of that market—a sizable share by any measure—strains predatory pricing doctrine in several ways. First, Amazon is positioned to recoup its losses by raising prices on less popular or obscure e-books, or by raising prices on print books. In either case, Amazon would be recouping outside the original market where it sustained losses (bestseller e-books), so courts are unlikely to look for or consider these scenarios. Additionally, constant fluctuations in prices and the ability to price discriminate enable Amazon to raise prices with little chance of detection. Lastly, Amazon could recoup its losses by extracting more from publishers, who are dependent on its platform to market both e-books and print books. This may diminish the quality and breadth of the works that are published, but since this is most directly a supplier-side rather than buyer-side harm, it is less likely that a modern court would consider it closely. The current predatory pricing framework fails to capture the harm posed to the book market by Amazon’s tactics.

B. Acquisition of Quidsi and Flawed Assumptions About Entry and Exit Barriers

In addition to using below-cost pricing to establish a dominant position in e-books, Amazon has also used this practice to put pressure on and ultimately acquire a chief rival. This history challenges contemporary antitrust law’s assumption that predatory pricing cannot be used to establish dominance. While theory may predict that entry barriers for online retail are low, this account shows that in practice significant investment is needed to establish a successful platform that will attract traffic. Finally, Amazon’s conduct suggests that psychological intimidation can discourage new entry that would challenge a dominant player’s market power.

In 2008, Quidsi was one of the world’s fastest growing e-commerce companies. It oversaw several subsidiaries: Diapers.com (focused on baby care), Soap.com (focused on household essentials), and BeautyBar.com (focused on...
beauty products). Amazon expressed interest in acquiring Quidsi in 2009, but the company’s founders declined Amazon’s offer.295

Shortly after Quidsi rejected Amazon’s overture, Amazon cut its prices for diapers and other baby products by up to 30%.296 By reconfiguring their prices, Quidsi executives saw that Amazon’s pricing bots—software “that carefully monitors other companies’ prices and adjusts Amazon’s to match”—were tracking Diapers.com and would immediately slash Amazon’s prices in response to Quidsi’s changes.297 In September 2010, Amazon rolled out Amazon Mom, a new service that offered a year’s worth of free two-day Prime shipping (which usually cost $79 a year).298 Customers could also secure an additional 30% discount on diapers by signing up for monthly deliveries as part of a service known as “Subscribe and Save.”299 Quidsi executives “calculated that Amazon was on track to lose $100 million over three months in the diaper category alone.”300

Eventually, Amazon’s below-cost pricing started eating into Diapers.com’s growth, and it “slowed under Amazon’s pricing pressure.”301 Investors, meanwhile, “grew wary of pouring more money” into Quidsi, given the challenge from Amazon.302 Struggling to keep up with Amazon’s pricing war, Quidsi’s owners began talks with Walmart about potentially selling the business. Amazon intervened and made an aggressive counteroffer.303 Although Walmart

295. Id. at 295-96.
296. Id. at 296.
299. STONE, supra note 239, at 297.
300. Id. at 298.
303. Stone, supra note 297 (noting that Amazon offered $540 million, giving Quidsi a forty-eight-hour window in which to respond and “rachet[ing] up the pressure,” telling Quidsi
offered a higher final bid, “the Quidsi executives stuck with Amazon, largely out of fear.” The FTC reviewed the Amazon-Quidsi deal and decided that it did not trigger anticompetitive concerns. Through its purchase of Quidsi, Amazon eliminated a leading competitor in the online sale of baby products. Amazon achieved this by slashing prices and bleeding money, losses that its investors have given it a free pass to incur—and that a smaller and newer venture like Quidsi, by contrast, could not maintain.

After completing its buy-up of a key rival—and seemingly losing hundreds of millions of dollars in the process—Amazon went on to raise prices. In November 2011, a year after buying out Quidsi, Amazon shut down new memberships in its Amazon Mom program. Though the company has since reopened the program, it has continued to scale back the discounts and generous shopping terms of the original offer. As of February 2012, discounts that had previously been 30% were reduced to 20%, and the one year of free Prime membership was cut to three months. In November 2014, the company hiked prices further: members purchasing more than four items in a month would no longer receive the general 20% discount, and the 20% discount on baby wipes—one of the program’s top-selling products—was cut to 5%.

that Bezos was “such a furious competitor [that he] would drive diaper prices to zero if they went with Walmart,” in which case “the Amazon Mom onslaught would continue”).

304. Id.

305. The FTC reviewed the deal under Section 7 of the Clayton Act, the provision that governs mergers, as well as section 5 of the Federal Trade Commission Act, which targets general unfair practices. See Letter from Donald S. Clark, Sec’y, FTC, to Peter C. Thomas, Simpson Thacher & Bartlett LLP (Mar. 23, 2011), http://www.ftc.gov/sites/default/files/documents/closing_letters/amazon.com-inc./quidsi-inc./110323amazonthomas.pdf [http://perma.cc/7E5A-LYMB]; see also Stone, supra note 297 (“The Federal Trade Commission scrutinized the acquisition for four and a half months, going beyond the standard review to the second-request phase, where companies must provide more information about a transaction. The deal raised a host of red flags, such as the elimination of a major player in a competitive category, according to an FTC official familiar with the review.”).

306. See Stone, supra note 239, at 298.


309. Id.
Summarizing the series of changes, one journalist observed, “The Amazon Mom program has become much less generous than it was when it was introduced in 2010.”\[310\] In online forums where consumers expressed frustrations with the changes, several users said they would be taking their business from Amazon and returning to Diapers.com—which, other users pointed out, was no longer possible.\[311\] Through its strategy, Amazon now holds a strong position in the baby-product market.\[312\]

Amazon’s conduct runs counter to contemporary predatory pricing thinking, which contends that predation is no path to buying up a competitor. In The Antitrust Paradox, Bork wrote, “[T]he modern law of horizontal mergers makes it all but impossible for the predator to bring the war to an end by purchasing his victim. To accomplish the predator’s purpose, the merger must create a monopoly” and law “would preclude the attainment of the monopoly necessary to make predation profitable.”\[313\] For sectors with low entry costs, Bork writes, this strategy is precluded by the constant possibility of reentry by other players. “A shoe retailer can be driven out rapidly, but reentry will be equally rapid.”\[314\] In fields in which entry costs are high, Bork argued that exit by competitors is unlikely because management would need to believe that the predation had rendered the value of their facilities negligible. For instance, “[t]ailroading, which involves specialized facilities, is difficult to enter, but the potential victim of predation would be difficult to drive out precisely because railroad facilities are not useful in other industries.”\[315\]


\[311\] In response to complaints about Amazon’s abrupt change, followed by customers recommending Diapers.com, one customer stated, “Diapers.com has a different shipping program, but they were recently bought out by Amazon. I would think that their shipping policies might change soon as well.” Shopaholic, Comment to Amazon Mom Benefits Misleading!, AMAZON (June 15, 2011, 4:56 PM), http://www.amazon.com/forum/baby/ref=cm_cd_pg_pg2?_encoding=UTF8&cdForum=FxBSKWDWQRZ0J5WU&cdPage=2&cdThread=TxZcC5GMKB4jEQP [http://perma.cc/E5NH-JCJ7].

\[312\] Amazon leads the online market for baby supplies, holding 43%. Walmart and Target follow, with 23% and 18%, respectively. Target, Walmart, Amazon Dominate the Online Baby Goods Market, BUS. INSIDER (Apr. 22, 2016, 8:30 PM), http://www.businessinsider.com/target-walmart-amazon-dominate-the-online-baby-goods-market-2016-4 [http://perma.cc/85KZ-QOCR].

\[313\] BORK, supra note 32, at 153.

\[314\] Id.

\[315\] Id.
Does online retailing of baby products resemble shoe retailing or railroading? Given the absence of formal barriers, entry should be easy: unlike railroading, selling baby products online requires no heavy investment or fixed costs. However, the economics of online retailing are not quite like traditional shoe retailing. Given that attracting traffic and generating sales as an independent online retailer involves steep search costs, the vast majority of online commerce is conducted on platforms, central marketplaces that connect buyers and sellers. Thus, in practice, successful entry by a potential diaper retailer carries with it the cost of attempting to build a new online platform, or of creating a brand strong enough to draw traffic from an existing company’s platform. As several commentators have observed, the practical barriers to successful and sustained entry as an online platform are very high, given the huge first-mover advantages stemming from data collection and network effects. Moreover, the high exit barriers that Bork assumes for railroads—namely, that they would have to be convinced their facilities were worth more as scrap than as a railroad—do not apply to online platforms. Investment in online platforms lies not in physical infrastructure that might be repurposed, but in intangibles like brand recognition. These intangibles can be absorbed by a rival platform or retailer with greater ease than a railroad could take over a competing line. In other words, online retailers like Quidsi face the high entry barriers of a railroad coupled with the relatively low exit costs typical of brick-and-mortar retailers—a combination that Bork, and the courts, failed to consider.

Courts also tend to discount that predators can use psychological intimidation to keep out the competition. Amazon’s history with Quidsi has sent a clear message to potential competitors—namely that, unless upstarts have deep pockets that allow them to bleed money in a head-to-head fight with Amazon,

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316. See generally Tim Wu, The Master Switch: The Rise and Fall of Information Empires (2010) (arguing that all American information industries since the telephone have resulted in monopolies); Candeub, supra note 225 (suggesting that network effects may produce anticompetitive results in the online market because of the cognitive effort necessary to switch search engines); Nathan Newman, Search, Antitrust, and the Economics of the Control of User Data, 31 YALE J. ON REG. 401 (2014) (proposing a new approach to antitrust investigations that would focus on the anticompetitive effects of corporations’ control of personal data); Frank Pasquale, Privacy, Antitrust, and Power, 20 GEO. MASON L. REV. 1009 (2013) (advocating reforms to privacy and antitrust policy to take into account the connections between market share and control over data).

317. For example, Amazon acquired Zappos.com in 2009 but chose to maintain the brand as a standalone rather than absorbing it within Amazon.com. Sarah Lacy, Amazon Buys Zappos; The Price Is $928m., Not $847m., TECHCRUNCH (July 22, 2009), http://techcrunch.com/2009/07/22/amazon-buys-zappos [http://perma.cc/5NGV-P2AU].

318. See, e.g., Leslie, supra note 94, at 1728-29.
it may not be worth entering the market. Even as Amazon has raised the price of the Amazon Mom program, no newcomers have recently sought to challenge it in this sector, supporting the idea that intimidation may also serve as a practical barrier.\textsuperscript{319}

As the world’s largest online retailer, Amazon serves as a default starting point for many online shoppers: one study estimates that 44% of U.S. consumers “go[] directly to Amazon first to search for products.”\textsuperscript{320} Moreover, the swaths of data that Amazon has collected on consumers’ browsing and searching histories can create the same problem that Google’s would-be competitors encounter: “an insurmountable barrier to entry for new competition.”\textsuperscript{321} Though at least one venture opened shop with an eye to challenging Amazon,\textsuperscript{322} its founders recently sold the firm to Walmart\textsuperscript{323}—a move that suggests that the only players positioned to challenge Amazon are the existing giants. However, even this strategy has skeptics.\textsuperscript{324} While established brick-and-mortar retailers like Target have tried to lure online consumers through dis-


\textsuperscript{320}. Moore, supra note 14. Google has stated that its biggest rival in search is not Bing or Yahoo, but Amazon. See Jeevan Vasagar & Alex Barker, \textit{Amazon Is Our Biggest Search Rival, Says Google’s Eric Schmidt}, FIN. TIMES (Oct. 13, 2014), http://www.ft.com/cms/s/0/748bf70f-82f3-11e4-b917-00144feab7de.html [http://perma.cc/3PHW-77EW].

\textsuperscript{321}. Newman, supra note 316, at 409.


\textsuperscript{324}. See Grace Noto, \textit{Jet.Com Acquisition Not Enough To Challenge Amazon, Experts Say}, BANK INNOVATION (Aug. 22, 2016), http://bankinnovation.net/2016/08/jet-com-acquisition-not-enough-to-challenge-amazon-experts-say [http://perma.cc/CQ3Y-6J8X] (“[T]here remains a healthy amount of skepticism in the industry about anyone’s ability to topple Amazon from its throne. ‘Amazon is quite dominant and will continue to be in the foreseeable future, because the resources they are putting into ecommerce and all of their other initiatives are formidable,’ said vice president and principal analyst at Forester Research Sucharita Mulpuru-Kodali. ‘Walmart has slowly been gaining some share in some ways, but it’s often two steps forward, one step back for them.’“); Pettypiece & Wang, supra note 323 (“Amazon is such a machine . . . . You aren’t going to out-Amazon Amazon.”).
counts and low delivery costs, Amazon remains the major online seller of baby products. Although Amazon established its dominance in this market through aggressive price cutting and selling steeply at a loss, its actions have not triggered predatory pricing claims. In part, this is because prevailing theory assumes—per Bork’s analysis—that market entry is easy enough for new rivals to emerge any time a dominant firm starts charging monopoly prices.

In this case, Amazon raised prices by cutting back discounts and (at least temporarily) refusing to expand the program. Even if a firm viewed the unmet demand as an invitation to enter, several factors would prove discouraging in ways that the existing doctrine does not consider. In theory, online retailing itself has low entry costs since anyone can set up shop online, without significant fixed costs. But in practice, successful entry in online markets is a challenge, requiring significant upfront investment. It requires either building up strong brand recognition to draw users to an independent site, or using an existing platform, such as Amazon or eBay, which can present other anticompetitive challenges. Indeed, most independent retailers choose to sell through Amazon—even when the business relationship risks undermining their business. The fact that no real rival has emerged, even after Amazon raised prices, undercuts the assumption embedded in current antitrust doctrine.

C. Amazon Delivery and Leveraging Dominance Across Sectors

As its history with Quidsi shows, Amazon’s willingness to sustain losses has allowed it to engage in below-cost pricing in order to establish dominance as an online retailer. Amazon has translated its dominance as an online retailer into significant bargaining power in the delivery sector, using it to secure favorable conditions from third-party delivery companies. This in turn has enabled Amazon to extend its dominance over other retailers by creating the Fulfillment-by-Amazon service and establishing its own physical delivery capacity. This illustrates how a company can leverage its dominant platform to successfully integrate into other sectors, creating anticompetitive dynamics. Retail competitors are left with two undesirable choices: either try to compete with Amazon at a disadvantage or become reliant on a competitor to handle delivery and logistics.

325. See Tuttle, supra note 298.
326. See id. (noting that Amazon’s market share is double Target’s).
327. See infra Section IV.D.
328. See LaVecchia & Mitchell, supra note 6, at 18.
As Amazon expanded its share of e-commerce—and enlarged the e-commerce sector as a whole—it started comprising a greater share of delivery companies’ business. For example, in 2015, UPS derived $1 billion worth of business from Amazon alone.\(^\text{329}\) The fact that it accounted for a growing share of these firms’ businesses gave Amazon bargaining power to negotiate for lower rates.\(^\text{330}\) By some estimates, Amazon enjoyed a 70% discount over regular delivery prices.\(^\text{331}\) Delivery companies sought to make up for the discounts they gave to Amazon by raising the prices they charged to independent sellers,\(^\text{332}\) a phenomenon recently termed the “waterbed effect.”\(^\text{333}\) As scholars have described,


\(^{330}\) In its 10-K, UPS states that while no single customer accounts for more than 10% of its consolidated revenue, its business remains vulnerable to the choices of some big clients. UPS, Inc., Annual Report (Form 10-K) 15 (Jan. 29, 2016), http://www.sec.gov/Archives/edgar/data/1090727/000109072715000008/ups-12312014x10k.htm [http://perma.cc/TU7T-B4Q4] (“[S]ome of our large customers might account for a relatively significant portion of the growth in revenue in a particular quarter or year . . . . These customers could choose to divert all or a portion of their business with us to one of our competitors, demand pricing concessions for our services, require us to provide enhanced services that increase our costs, or develop their own shipping and distribution capabilities. If these factors drove some of our large customers to cancel all or a portion of their business relationships with us, it could materially impact the growth in our business and the ability to meet our current and long-term financial forecasts.”).

\(^{331}\) See Stephanie Clifford & Claire Cain Miller, *Wal-Mart Says ‘Try This On’: Free Shipping*, N.Y. TIMES (Nov. 11, 2010), http://www.nytimes.com/2010/11/11/business/11shipping.html [http://perma.cc/ULM8-3ASC] (“[A]ir shipping prices for big retailers are about 70 percent less than for a small company. Shipping at Amazon costs about 4 percent of sales, and Amazon loses money on it because it offers marketing benefits . . . . [S]hipping at small sites usually costs about 35 percent of sales . . . .”). Congress passed the Robinson-Patman Act precisely to prevent this sort of “waterbed effect.” As I describe earlier, Chicago School hostility to Robinson-Patman has meant that both the antitrust agencies and courts have largely stopped enforcing the law. See supra text accompanying notes 77-108.


\(^{333}\) See Paul W. Dobson & Roman Inderst, *The Waterbed Effect: Where Buying and Selling Power Come Together*, 2008 WIS. L. REV. 331, 336-37 (“If, in contrast, the discounts to one or a few buyers were to put other buyers in a worse bargaining position to the extent of them paying even-higher prices (e.g., premiums rather than discounts) then the knock-on consequence could be higher retail prices and dampened competition. This latter case is an instance of a waterbed effect—where differential buyer power means that some buyers gain at both the relative and absolute expense of other buyers.”); John Kirkwood, *Powerful Buyers and Merger Enforcement*, 92 B.U. L. REV. 1485, 1544 (2012) (“[Suppose a firm] demands price or other
The presence of a waterbed effect can further distort competition by giving a powerful buyer now a two-fold advantage, namely, through more advantageous terms for itself and through higher purchasing costs for its rivals. What then becomes a virtuous circle for the strong buyer ends up as a vicious circle for its weaker competitors.334

To this two-fold advantage Amazon added a third perk: harnessing the weakness of its rivals into a business opportunity. In 2006, Amazon introduced Fulfillment-by-Amazon (FBA), a logistics and delivery service for independent sellers.335 Merchants who sign up for FBA store their products in Amazon's warehouses, and Amazon packs, ships, and provides customer service on any orders. Products sold through FBA are eligible for service through Amazon Prime—namely, free two-day shipping and/or free regular shipping, depending on the order.336 Since many merchants selling on Amazon are competing with Amazon's own retail operation and its Amazon Prime service, using FBA offers sellers the opportunity to compete at less of a disadvantage.

Notably, it is partly because independent sellers faced higher rates from UPS and FedEx—a result of Amazon’s dominance—that Amazon succeeded in directing sellers to its new business venture.337 In many instances, orders routed through FBA were still being shipped and delivered by UPS and FedEx, since Amazon relied on these firms.338 But because Amazon had secured dis-

334. Dobson & Inderst, supra note 333, at 337.
336. Id. ("Amazon.com customers can now use offers such as Amazon Prime and Free Super Saver Shipping when buying products with the 'Fulfilled by Amazon' icon next to the offering listing.").
337. See Paul Cole, Should You Use Amazon Discounted UPS Shipping?, SELLERENGINE (2012), http://sellerengine.com/should-you-use-amazon-discounted-ups-shipping [http://perma.cc/q4ND-BzWH] ("Probably the most common choice is to use Amazon's discounted rate with UPS. For many sellers, this is the way to go. It's a lower rate than you’re likely to receive from UPS or FedEx if you have your own account. Currently, Amazon’s UPS rate is about 20% cheaper than an average FedEx account, $.38/lb. compared to $.48/lb.").
counts unavailable to other sellers, it was cheaper for those sellers to go through Amazon than to use UPS and FedEx directly. Amazon had used its dominance in the retail sector to create and boost a new venture in the delivery sector, inserting itself into the business of its competitors.

Amazon has followed up on this initial foray into fulfillment services by creating a logistics empire. Building out physical capacity lets Amazon further reduce its delivery times, raising the bar for entry yet higher. Moreover it is the firm’s capacity for aggressive investing that has enabled it to rapidly establish an extensive network of physical infrastructure. Since 2010, Amazon has spent $13.9 billion building warehouses, and it spent $11.5 billion on shipping in 2015 alone. Amazon has opened more than 180 warehouses, 28 sorting centers, 59 delivery stations that feed packages to local couriers, and more than 65 Prime Now hubs. Analysts estimate that the locations of Amazon’s fulfillment centers bring it within twenty miles of 31% of the population and within twenty miles of 60% of its core same-day base. This sprawling network of fulfillment centers—each placed in or near a major metropolitan area—equips Amazon to offer one-hour delivery in some locations and same-day in others (a service it offers free to members of Amazon Prime). While several rivals initially entered the delivery market to compete with Prime shipping, some are now retreating. As one analyst noted, “Prime has proven exceedingly difficult for rivals to copy.”

340. Leonard, supra note 207.
342. Id.
344. Bensinger & Stevens, supra note 341.
346. Stone, supra note 206; see also JP Mangalindan, Amazon’s Prime and Punishment, FORTUNE (Feb. 21, 2012, 8:02 PM), http://fortune.com/2012/02/21/amazons-prime-and-punishment [http://perma.cc/68KL-8C5Z] (“If you’re a competing retailer, it should be in your plans that Prime will someday be a next-day or same-day delivery service with 100,000 free mov-
Most recently, Amazon has also expanded into trucking. Last December, it announced it plans to roll out thousands of branded semi-trucks, a move that will give it yet more control over delivery, as it seeks to speed up how quickly it can transport goods to customers. Amazon now owns four thousand truck trailers and has also signed contracts for container ships, planes, and drones. As of October 2016, Amazon had leased at least forty jets. Former employees say Amazon’s long-term goal is to circumvent UPS and FedEx altogether, though the company itself has said it is looking only to supplement its reliance on these firms, not supplant them.

The way that Amazon has leveraged its dominance as an online retailer to vertically integrate into delivery is instructive on several fronts. First, it is a textbook example of how the company can use its dominance in one sphere to advantage a separate line of business. To be sure, this dynamic is not intrinsically anticompetitive. What should prompt concern in Amazon’s case, however, is that Amazon achieved these cross-sector advantages in part due to its bargaining power. Because Amazon was able to demand heavy discounts from FedEx and UPS, other sellers faced price hikes from these companies—which positioned Amazon to capture them as clients for its new business. By overlooking structural factors like bargaining power, modern antitrust doctrine fails to address this type of threat to competitive markets.


350. Id.

351. See Del Ray, supra note 347; see also Leonard, supra note 207 (“Others believe that Amazon will make a business out of its delivery network, as it did with Amazon Web Services, thereby challenging the world’s leading shipping companies . . . . The fear has spread to Wall Street, where analysts say investors worry about what Amazon’s strategy means for the shipping industry. ‘The natural inclination among any observers of the market when they see Amazon is to be scared,’ says David Vernon, a Sanford C. Bernstein analyst who tracks the shipping market. ‘Amazon is the epitome of a zero-sum game.’”).
Second, Amazon is positioned to use its dominance across online retail and delivery in ways that involve tying, are exclusionary, and create entry barriers. That is, Amazon’s distortion of the delivery sector in turn creates anticompetitive challenges in the retail sector. For example, sellers who use FBA have a better chance of being listed higher in Amazon search results than those who do not, which means Amazon is tying the outcomes it generates for sellers using its retail platform to whether they also use its delivery business. Amazon is also positioned to use its logistics infrastructure to deliver its own retail goods faster than those of independent sellers that use its platform and fulfillment service—a form of discrimination that exemplifies traditional concerns about vertical integration. And Amazon’s capacity for losses and expansive logistics capacities mean that it could privilege its own goods while still offering independent sellers the ability to ship goods more cheaply and quickly than they could by using UPS and FedEx directly.

Relatedly, Amazon’s expansion into the delivery sector also raises questions about the Chicago School’s limited conception of entry barriers. The company’s capacity for losses—the permission it has won from investors to show negative profits—has been key in enabling Amazon to achieve outsized growth in delivery and logistics. Matching Amazon’s network would require a rival to invest heavily and—in order to viably compete—offer free or otherwise below-cost shipping. In interviews with reporters, venture capitalists say there is no appetite to fund firms looking to compete with Amazon on physical delivery. In this way, Amazon’s ability to sustain losses creates an entry barrier for any firm that does not enjoy the same privilege.

Third, Amazon’s use of Prime and FBA exemplifies how the company has structurally placed itself at the center of e-commerce. Already 44% of American online shoppers begin their online shopping on Amazon’s platform. Given the traffic, it is becoming increasingly clear that in order to succeed in e-commerce, an independent merchant will need to use Amazon’s infrastructure.

352. A tie is created when a firm requires consumers interested in purchasing good A to purchase good A (the tying good) and good B (the tied good) from the firm. The practice forces an unwilling customer to purchase the tied good while a refusal-to-deal turns away a willing customer. See Einer Elhauge, Tying, Bundled Discounts, and the Death of the Single Monopoly Profit Theorem, 123 H. L. Rev. 397, 466–67 (2009).


354. “One of the biggest themes is the challenge of getting product to your consumers, and relying on [fulfillment companies], but they don’t have another option, they can’t make investments [if] Amazon is in fulfillment.” Ray, supra note 232.

The fact that Amazon competes with many of the businesses that are coming to depend on it creates a host of conflicts of interest that the company can exploit to privilege its own products.

The dominant framework in antitrust today fails to recognize the risk that Amazon’s dominance poses for discrimination and barriers to new entry. In part, this is because—as with the framework’s view of predatory pricing—the primary harm that registers within the “consumer welfare” frame is higher consumer prices. On the Chicago School’s account, Amazon’s vertical integration would only be harmful if and when it chooses to use its dominance in delivery and retail to hike fees to consumers. Amazon has already raised Prime prices. But antitrust enforcers should be equally concerned about the fact that Amazon increasingly controls the infrastructure of online commerce—and the ways in which it is harnessing this dominance to expand and advantage its new business ventures. The conflicts of interest that arise from Amazon both competing with merchants and delivering their wares pose a hazard to competition, particularly in light of Amazon’s entrenched position as an online platform. Amazon’s conflicts of interest tarnish the neutrality of the competitive process. The thousands of retailers and independent businesses that must ride Amazon’s rails to reach market are increasingly dependent on their biggest competitor.

D. Amazon Marketplace and Exploiting Data

As described above, vertical integration in retail and physical delivery may enable Amazon to leverage cross-sector advantages in ways that are potentially anticompetitive but not understood as such under current antitrust doctrine. Analogous dynamics are at play with Amazon’s dominance in the provision of online infrastructure, in particular its Marketplace for third-party sellers. Because information about Amazon’s practices in this area is limited, this Section necessarily will be brief. But to capture fully the anticompetitive features of Amazon’s business strategy, it is vital to analyze how vertical integration across internet businesses introduces more sophisticated—and potentially more troubling—opportunities to abuse cross-market advantages and foreclose rivals.

The clearest example of how the company leverages its power across online businesses is Amazon Marketplace, where third-party retailers sell their wares. Since Amazon commands a large share of e-commerce traffic, many smaller merchants find it necessary to use its site to draw buyers. These sellers list

356. See Bensinger, supra note 223.
their goods on Amazon's platform and the company collects fees ranging from 6% to 50% of their sales from them.\textsuperscript{358} More than two million third-party sellers used Amazon's platform as of 2015, an increase from the roughly one million that used the platform in 2006.\textsuperscript{359} The revenue that Amazon generates through Marketplace has been a major source of its growth: third-party sellers' share of total items sold on Amazon rose from 36% in 2011\textsuperscript{360} to over 50% in 2015.\textsuperscript{361}

Third-party sellers using Marketplace recognize that using the platform puts them in a bind. As one merchant observed, “You can’t really be a high-volume seller online without being on Amazon, but sellers are very aware of the fact that Amazon is also their primary competitor.”\textsuperscript{362} Evidence suggests that their unease is well founded. Amazon seems to use its Marketplace “as a vast laboratory to spot new products to sell, test sales of potential new goods, and exert more control over pricing.”\textsuperscript{363} Specifically, reporting suggests that “Amazon uses sales data from outside merchants to make purchasing decisions in order to undercut them on price” and give its own items “featured placement under a given search.”\textsuperscript{364} Take the example of Pillow Pets, “stuffed-animal pillows modeled after NFL mascots” that a third-party merchant sold through Amazon’s site.\textsuperscript{365} For several months, the merchant sold up to one hundred pillows per day.\textsuperscript{366} According to one account, “just ahead of the holiday season, [the merchant] noticed Amazon had itself begun offering the same Pillow Pets for the same price while giving [its own] products featured placement on the site.”\textsuperscript{367} The merchant’s own sales dropped to twenty per day.\textsuperscript{368} Amazon

\footnotesize{\begin{itemize}
\item Id.
\item Id.
\item Loten & Janofsky, \textit{supra} note 357.
\item Bensinger, \textit{supra} note 360.
\item Id.
\item Id.
\item Id.
\item Id.
\item Id.
\end{itemize}}
has gone head-to-head with independent merchants on price, vigorously matching and even undercutting them on products that they had originally introduced. By going directly to the manufacturer, Amazon seeks to cut out the independent sellers.

In other instances, Amazon has responded to popular third-party products by producing them itself. Last year, a manufacturer that had been selling an aluminum laptop stand on Marketplace for more than a decade saw a similar stand appear at half the price. The manufacturer learned that the brand was AmazonBasics, the private line that Amazon has been developing since 2009. As one news site describes it, initially, AmazonBasics focused on generic goods like batteries and blank DVDs. "Then, for several years, the house brand 'slept quietly as it retained data about other sellers' successes.' As it now rolls out more AmazonBasics products, it is clear that the company has used "insights gleaned from its vast Web store to build a private-label juggernaut that now includes more than 3,000 products." One study found that in the case of women's clothing, Amazon "began selling 25 percent of the top items first sold through marketplace vendors."

It is true that brick-and-mortar retailers sometimes also introduce private labels and may use other brands' sales records to decide what to produce. The difference with Amazon is the scale and sophistication of the data it collects. Whereas brick-and-mortar stores are generally only able to collect information on actual sales, Amazon tracks what shoppers are searching for but cannot find, as well as which products they repeatedly return to, what they keep in their shopping basket, and what their mouse hovers over on the screen.

In using its Marketplace this way, Amazon increases sales while shedding risk. It is third-party sellers who bear the initial costs and uncertainties when

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370. Id. (quoting a report by Skubana, an e-commerce company).

371. Id.


373. As one analyst said of Amazon employees, “They’re data scientists. They know what people want and they’re going to mop it up.” Nick Bravo, Amazon Private Labels Threaten Manufacturers, TRENDSOURCE (July 5, 2016, 8:00 AM), http://trustedinsight.trendsource.com/trusted-insight-trends/amazon-private-labels-threaten-manufacturers [http://perma.cc/W7VE-LXSS].
introducing new products; by merely spotting them, Amazon gets to sell products only once their success has been tested. The anticompetitive implications here seem clear: Amazon is exploiting the fact that some of its customers are also its rivals. The source of this power is: (1) its dominance as a platform, which effectively necessitates that independent merchants use its site; (2) its vertical integration—namely, the fact that it both sells goods as a retailer and hosts sales by others as a marketplace; and (3) its ability to amass swaths of data, by virtue of being an internet company. Notably, it is this last factor—its control over data—that heightens the anticompetitive potential of the first two.

Evidence suggests that Amazon is keenly aware of and interested in exploiting these opportunities. For example, the company has reportedly used insights gleaned from its cloud computing service to inform its investment decisions.374 By observing which start-ups are expanding their usage of Amazon Web Services, Amazon can make early assessments of the potential success of upcoming firms. Amazon has used this “unique window into the technology startup world” to invest in several start-ups that were also customers of its cloud business.375

How Amazon has cross-leveraged its advantages across distinct lines of business suggests that the law fails to appreciate when vertical integration may prove anticompetitive. This shortcoming is underscored with online platforms, which both serve as infrastructure for other companies and collect swaths of data that they can then use to build up other lines of business. In this way, the current antitrust regime has yet to reckon with the fact that firms with concentrated control over data can systematically tilt a market in their favor, dramatically reshaping the sector.376

375. Id.
376. European antitrust authorities do investigate how concentrated control over data may have anticompetitive effects, and—unlike U.S. antitrust authorities—investigated the Facebook/WhatsApp merger for this reason. Complaints from companies that their rivals are acquiring an unfair competitive advantage through acquiring a firm with huge troves of data may also prompt U.S. authorities to take the exclusionary potential of data more seriously. In September, Salesforce announced it would urge regulators in the United States and in Europe to block Microsoft’s bid to acquire LinkedIn, on grounds that the deal would foreclose competition by giving Microsoft too much control over data. See Rachael King, Salesforce.com To Press Regulators To Block Microsoft-LinkedIn Deal, WALL ST. J. (Sept. 29, 2016, 7:18 PM), http://www.wsj.com/articles/salesforce-com-to-press-regulators-to-block-microsoft-linkedin-deal-1475178870 [http://perma.cc/5EZE-GVBC].
V. HOW PLATFORM ECONOMICS AND CAPITAL MARKETS MAY FACILITATE ANTICOMPETITIVE CONDUCT AND STRUCTURES

As Part IV mapped out, aspects of Amazon’s conduct and structure may threaten competition yet fail to trigger scrutiny under the analytical framework presently used in antitrust. In part this reflects the “consumer welfare” orientation of current antitrust laws, as critiqued in Part II. But it also reflects a failure to update antitrust for the internet age. This Part examines how online platforms defy and complicate assumptions embedded in current doctrine. Specifically, it considers how the economics and business dynamics of online platforms create incentives for companies to pursue growth at the expense of profits, and how online markets and control over data may enable new forms of anticompetitive activity.

Economists have analyzed extensively how platform markets may pose unique challenges for antitrust analysis.\(^ {377} \) Specifically, they stress that analysis applicable to firms in single-sided markets may break down when applied to two-sided markets, given the distinct pricing structures and network externalities.\(^ {378} \) These studies often focus on the challenge that two-sided platforms face in attracting both sides—the classic coordination problem of having to attract buyers without an established line of sellers, and vice versa.\(^ {379} \) Economists tend to conclude that—given the particular challenges of two-sided markets—antitrust should be forgiving of conduct that might otherwise be characterized as anticompetitive.\(^ {380} \)

Legal analysis of online platforms is comparatively undertheorized. The Justice Department’s case against Microsoft under Section 2 of the Sherman Act, initiated in the 1990s, remains the government’s most significant case involving two-sided markets—even as platforms have emerged as central arteries


\(^ {378} \) See Julian Wright, One-Sided Logic in Two-Sided Markets, 3 Rev. Network Econ. 44 (2004).


\(^ {380} \) Two-sided markets are platforms that have two distinct user groups that offer each other network benefits.

\(^ {381} \) See Evans, supra note 379, at 112 (“The pricing and investment strategies that firms in two-sided markets use to ‘get both sides on board’ and ‘balance the interests of both sides’ raise novel ones. These pricing and other business strategies are needed to solve a fundamental economic problem arising from the interdependency of demand on both sides of the market. In some cases, the product could not even exist without efforts to subsidize one side of the market or the other.”).
in our modern economy. Starting in 2011, the FTC pursued an investigation into Google, partly in response to allegations that the company uses its dominance as a search engine to cement its advantage and exclude rivals in other lines of business. While the FTC closed the investigation without bringing any charges, leaks later revealed that FTC staff had concluded that Google abused its power on three separate counts. 382 The European Union has brought charges against Google for violating antitrust laws. 383

For the purpose of competition policy, one of the most relevant factors of online platform markets is that they are winner-take-all. This is due largely to network effects and control over data, both of which mean that early advantages become self-reinforcing. The result is that technology platform markets will yield to dominance by a small number of firms. Walmart’s recent purchase of the one start-up that had sought to challenge Amazon in online retail—Jet.com—illustrates this reality. 384

Network effects arise when a user’s utility from a product increases as others use the product. Since popularity compounds and is reinforcing, markets with network effects often tip towards oligopoly or monopoly. 385 Amazon’s user reviews, for example, serve as a form of network effect: the more users that have purchased and reviewed items on the platform, the more useful information other users can glean from the site. 386 As the Fourth Circuit has noted, “[O]nce dominance is achieved, threats come largely from outside the dominated market, because the degree of dominance of such a market tends to become so extreme.” 387 In this way, network effects act as a form of entry barrier.

A platform’s control over data, meanwhile, can also entrench its position. 388 Access to consumer data enables platforms to better tailor services and gauge demand. Involvement across markets, meanwhile, may permit a company to use

384. See supra note 319.
385. STUCKE & GRUNES, supra note 47, at 163.
386. This is a form of “scale of data” network effect rather than a “traditional network effect.” Id. at 170.
data gleaned from one market to benefit another business line.\textsuperscript{389} Amazon’s use of Marketplace data to advantage its retail sales, as described in Section IV.D, is an example of this dynamic. Control over data may also make it easier for dominant platforms to enter new markets with greater ease. For example, reports now suggest that Amazon may dramatically expand its footprint in the ad business, “leveraging its rich supply of shopping data culled from years of operating a massive e-commerce business.”\textsuperscript{390} In other words, control over data, too, acts as an entry barrier.

Given that online platforms operate in markets where network effects and control over data solidify early dominance, a company looking to compete in these markets must seek to capture them. The most effective way is to chase market share and drive out one’s rivals—even if doing so comes at the expense of short-term profits, since the best guarantee of long-term profits is immediate growth. Due to this dynamic, striving to maximize market share at the expense of one’s rivals makes predation highly rational; indeed, it would be irrational for a business not to frontload losses in order to capture the market. Recognizing that enduring early losses while aggressively expanding can lock up a monopoly, investors seem willing to back this strategy.

As the Introduction and Part III describe, Amazon has charted immense growth while investing aggressively—both by expanding provision of physical and online infrastructure and by pricing goods below cost. Amazon’s stock price has soared despite a history of razor-thin—or even negative—margins. In essence, investors have given Amazon a free pass to grow without any pressure to show profits. The firm has used this edge to expand wildly and dominate online commerce.

The idea that investors are willing to fund predatory growth in winner-take-all markets also holds in the case of Uber. Although the dynamics of the online retail market are distinct from those of ride-sharing, Uber’s growth trajectory is worth analyzing for general insight into how investors enable plat-

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\textsuperscript{389} Interestingly, agencies have required vertically merging parties to erect firewalls to prevent anticompetitive use of data. See, e.g., In re Coca-Cola Co., 150 F.T.C. 520, 2010 WL 9549986 (2010) (ordering Coca-Cola to set up a firewall to ensure that its merger with a bottling subsidiary does not give it access to information from its competitor, Dr. Pepper Snapple Group); Press Release, FTC, FTC Puts Conditions on Coca-Cola’s $12.3 Billion Acquisition of its Largest North American Bottler (Sept. 27, 2010), http://www.ftc.gov/news-events/press-releases/2010/09/ftc-puts-conditions-coca-colas-123-billion-acquisition-its [http://perma.cc/BP7U-EY33] (discussing the Coca-Cola settlement and a similar PepsiCo settlement).

form dominance. In 2015, news reports revealed that Uber had an operating loss of $470 million on $415 million in revenue, confirming suspicions that the company has been bleeding money for the sake of achieving steep growth and acquiring market share.391 In China, the company has lost more than $1 billion a year.392 The strategy of aggressive price competition and brazen leadership coupled with soaring growth prompted immediate comparisons to Amazon.393 Like Amazon, Uber has drawn immense interest from investors. As of July 2015, its valuation hit nearly $51 billion, equaling the record set by Facebook in 2012.394 It recently secured an additional $3.5 billion in investment, bringing its total funds to $13.5 billion—a figure “far greater than most companies raise even during an initial public offering,” which Uber has avoided.395

One might dismiss this phenomenon as irrational investor exuberance. But another way to read it is at face value: the reason investors value Amazon and Uber so highly is because they believe these platforms will, eventually, generate huge returns. As one venture capitalist recently remarked, if he had to “put his entire capital in a single company and hold it for the next 10 years,” he would choose Amazon. “I don’t see any cleaner monopoly available to buy in the public markets right now.”396 In other words, that these platform companies are

391. See Eric Newcomer, Uber Draws Fresh Amazon Comparisons as Growth Trumps Profit, Bloomberg (July 1, 2015, 12:30 AM), http://www.bloomberg.com/news/articles/2015-07-01/uber-draws-fresh-comparison-with-amazon-as-growth-trumps-profit [http://perma.cc/AYF9-9RJ7]. Uber does not just lose money in the aggregate by reinvesting more than it generates, but also by pricing rides below what it pays drivers. In other words, it is pricing below its variable costs—which enforcers traditionally read as a sign of predatory pricing. “As anyone who has taken an Uber and talked to the driver knows, sometimes the fare collected from the rider is less than what Uber pays the driver.” Id.


393. “They’re wise to expand as fast as they can,’ said Lou Shipley, a lecturer at the MIT Sloan School of Management. ‘I would liken it to what Amazon did with books.” Newcomer, supra note 391.


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undertaking consistent, steep losses and still generating strong investor backing suggests that the markets expect Amazon and Uber to recoup these losses.

While investors have unambiguously endorsed and funded online platforms’ quest to bleed money in their race to draw users, antitrust doctrine fails to acknowledge this strategy. In the past, the Supreme Court’s analysis has embraced the Efficient Market Hypothesis (EMH), the idea that market prices reflect all available information. The Justice Department also acknowledges that market information—for example, the financial terms of an acquisition—may “be informative regarding competitive effects.” Applying EMH in this instance overwhelmingly suggests that these platforms are positioned to recoup their losses. Yet bringing a predatory pricing suit against an online platform would be almost impossible to win in light of the recoupment requirement. Strikingly, the market is reflecting a reality that our current laws are unable to detect.

In addition to overlooking why online platform dynamics make predation especially rational, current doctrine also fails to appreciate how a platform might recoup losses. For one, investor support allows Amazon to strategize and operate on a time horizon far longer than what the Brooke Group or Matsushita Courts confronted. Raising prices in a third year after enduring losses for two is different from engaging in a decade-long quest to become the dominant online retailer and provider of internet infrastructure. That longer timeline, meanwhile, makes available more recoupment mechanisms. Not only has Amazon inaugurated an entire generation into online shopping through its platform, but it has expanded into a suite of additional businesses and amassed significant troves of data on users. This data enables it both to extend its tug over customers through highly tailored personal shopping experiences, and, potentially, to institute forms of price discrimination, as described in Section IV.A. Both the latitude granted by investors and control over data equip an in-

397. The Supreme Court has affirmed the validity of EMH. See Halliburton Co. v. Erica P. John Fund, 134 S. Ct. 2398, 2409-11, 2417 (2014).
398. Horizontal Merger Guidelines, supra note 44, at 4 (“For example, a purchase price in excess of the acquired firm’s stand-alone market value may indicate that the acquiring firm is paying a premium because it expects to be able to reduce competition or to achieve efficiencies.”).
399. Ironically, the logic that is motivating investors—the idea that it is worth encouraging platforms to bleed money to establish a dominant position and capture the market, at which point these firms will be able to recoup those losses—maps on to the logic underpinning current predatory pricing doctrine. The main issue is how narrowly the law currently conceives of recoupment, which does not account for how Amazon can leverage its multiple lines of business.
cumbent platform to recoup losses in ways less obviously connected to the initial form of below-cost pricing.

These recoupment mechanisms may also be more sophisticated than what a judge or even rivals would be able to spot. This last point becomes even more apparent in the context of Uber, whose dynamic pricing has conditioned users not to expect a stable or regular price. While Uber claims that its algorithms set prices to reflect real-time supply and demand, initial research has found that the company manipulates the availability of both.400 Moreover, it routinely gives away discount coupons to select users, effectively charging users different prices, even for the same service at the same time.401

Although platforms form the backbone of the internet economy, the way that platform economics implicates existing laws is relatively undertheorized.402 Amazon’s conduct suggests that predatory pricing and integration across related business lines are emerging as key paths to establishing dominance—aided by the control over data that dominant platforms enjoy. But because current predatory pricing doctrine defines recoupment in overly narrow terms, competitors generally have not been able to make an effective legal case. Similarly, because current doctrine largely discounts entry barriers, the anticompetitive effects of vertical integration are difficult to cognize under the existing framework. Roadblocks to these claims persist even as Amazon’s valuation and share price point to a strong market expectation of recoupment and profits.

There are signs that enforcers are becoming more attuned to the special factors that may render current antitrust analysis inadequate to promote competition in internet platform markets. For example, in 2014 the United States successfully challenged a merger between two leading providers of online ratings and reviews platforms. In its complaint, DOJ acknowledged that data-driven industries can be characterized by network effects, which increase switching costs and entry barriers.403 Recent comments by FTC Commissioner Terrell

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403. The Justice Department wrote, “[A]s more retailers purchase Bazaarvoice’s PRR platform, the Bazaarvoice network becomes more valuable for manufacturers because it will allow[ ] them to syndicate content to a greater number of retail outlets. The feedback between the manufacturers and retailers creates a network effect that is a significant and durable compet-
McSweeny—noting that data can act as a barrier to entry and that “competition enforcers can and should assess the competitive implications of data”—also suggest that top officials are assessing how to revise their tools and framework for gauging competition in platform markets.\footnote{\textit{\textsuperscript{404}} Terrell McSweeny, Comm’r, FTC, Remarks to the U.S. Chamber of Commerce at TecNation 2016 (Sept. 20, 2016), http://www.ftc.gov/system/files/documents/public_statements/985773/mcsweeny_-_tecnation_2016_9-20-16.pdf [http://perma.cc/N7GA-YN3P].}

While this burgeoning recognition is heartening, the unique features of platform markets require a more thorough evaluation of how antitrust is applied. Because scale is both vital to platforms’ business model and helps entrench their dominant position, antitrust should reckon with the fact that pursuing growth at the expense of returns is—contra to current doctrine—highly rational. An approach more attuned to the realities of online platform markets would also recognize the variety of mechanisms that businesses may use to recoup losses, the longer time horizon on which recoupment might occur, and the ways that vertical integration and concentrated control over data may enable new forms of anticompetitive conduct. Revising antitrust to reflect the dynamics of online platforms is vital, especially as these companies come to mediate a growing share of communications and commerce.

\section*{VI. TWO MODELS FOR ADDRESSING PLATFORM POWER}

If it is true that the economics of platform markets may encourage anticompetitive market structures, there are at least two approaches we can take. Key is deciding whether we want to govern online platform markets through competition, or want to accept that they are inherently monopolistic or oligopolistic and regulate them instead. If we take the former approach, we should reform antitrust law to prevent this dominance from emerging or to limit its scope. If we take the latter approach, we should adopt regulations to take advantage of these economies of scale while neutering the firm’s ability to exploit its dominance.

\subsection*{A. Governing Online Platform Markets Through Competition}

Reforming antitrust to address the anticompetitive nature of platform markets could involve making the law against predatory pricing more robust and strictly policing forms of vertical integration that firms can use for anticompetitive advantage for Bazaarvoice.” Complaint at 18, United States v. Bazaarvoice, Inc., No. 13-0133 2014 (N.D. Cal. Jan. 10, 2013), 2014 WL 203966.
tive ends. Importantly, each of these doctrinal areas should be reformulated so that it is sensitive to preserving the competitive process and limiting conflicts of interest that may incentivize anticompetitive conduct.

1. Predatory Pricing

While predatory pricing technically remains illegal, it is extremely difficult to win predatory pricing claims because courts now require proof that the alleged predator would be able to raise prices and recoup its losses. Revising predatory pricing doctrine to reflect the economics of platform markets, where firms can sink money for years given unlimited investor backing, would require abandoning the recoupment requirement in cases of below-cost pricing by dominant platforms. And given that platforms are uniquely positioned to fund predation, a competition-based approach might also consider introducing a presumption of predation for dominant platforms found to be pricing products below cost.

Several reasons militate in favor of a presumption of predation in such cases. First, firms may raise prices years after the original predation, or raise prices on unrelated goods, in ways difficult to prove at trial. Second, firms may raise prices through personalized pricing or price discrimination, in ways not easily detectable. Third, predation can lead to a host of market harms even if the firm does not raise consumer prices. Within a consumer welfare framework, these harms include degradation of product quality and sapping diversity of choice. Such harms may arise if Amazon uses its bargaining power to extract better terms from producers and suppliers, who, in turn, slash investments to meet its demands. Within a broader framework—which seeks to protect the full range of interests that antitrust laws were enacted to safeguard—the potential harms include lower income and wages for employees, lower rates of new business creation, lower rates of local ownership, and outsized political and economic control in the hands of a few.

Introducing a presumption of predation would involve identifying when a price is below cost, a subject of much debate. The Supreme Court has not addressed the issue, but most appellate courts have said that average variable cost

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405. See supra Section I.A.
406. See Stucke, supra note 38; Horizontal Merger Guidelines, supra note 44, at 2.
is the right metric.\footnote{408} This Note does not advocate the adoption of one particular measure over others. Admittedly, “below cost” is an imperfect filter, especially since what constitutes the relevant cost may vary depending on the industry or cost structure. And the specific definition of “costs” that courts and enforcers adopt may ultimately be less significant if the test for predatory pricing also permits a business justification defense, which would help screen against false positives.\footnote{409} A business justification defense could cover compensating a buyer for taking the risk of buying a new product, expanding demand to a level which will allow the entrant to achieve scale economies, keeping prices at competitive levels while expecting costs to decline, and matching competition.\footnote{410}

Whether a platform is dominant enough to trigger the presumption could be assessed through its market share: those holding greater than, say, 40% of the market in any given line of service (e.g., cloud computing, ride sharing) might be designated “dominant.” Rather than measuring this market share nationally, enforcers would look to levels of local control; a ride-sharing platform that held only 35% of the national market but 75% of the Nashville market would still be considered dominant for the purpose of price-cutting in Nashville.

2. \textit{Vertical Integration}

The current approach to antitrust does not sufficiently account for how vertical integration may give rise to anticompetitive conflicts of interest, nor does it adequately address the way a dominant firm may use its dominance in one sector to advance another line of business. This concern is heightened in the context of vertically integrated platforms, which can use insights generated through data acquired in one sector to undermine rivals in another. Potential ways to address this deficiency include scrutinizing mergers that would enable a firm to acquire valuable data and cross-leverage it, or introducing a prophylactic ban on mergers that would give rise to conflicts of interest.

One way to address the concern about a firm’s capacity to cross-leverage data is to expressly include it in merger review.\footnote{411} Under the current approach,
only mergers over a particular monetary threshold require agency review—yet the monetary value of a deal may not be a good proxy for the scope and scale of data at stake. Thus, it could make sense for the agencies to automatically review any deal that involves exchange of certain forms (or a certain quantity) of data. Data that gave a player deep and direct insight into a competitor’s business operations, for example, might trigger review. Under this regime, Facebook’s purchases of WhatsApp and Instagram, for instance, would have received greater scrutiny from the antitrust agencies, in recognition of how acquiring data can deeply implicate competition. International transactions granting foreign corporations access to data on U.S. users would also require close review. Uber’s decision to sell its China operations to Didi Chuxing, China’s dominant ride-sharing service—a deal through which Uber will also gain partial ownership over its main U.S. rival, Lyft—is one deal that would prompt scrutiny under this regime.

A stricter approach would place prophylactic limits on vertical integration by platforms that have reached a certain level of dominance. This would recognize that a platform’s involvement across multiple related lines of business can give rise to conflicts of interest by creating circumstances in which a platform has an incentive to privilege its own business and disadvantage other companies. Seeking to prevent the industry structures that create these conflicts of interest may prove more effective than policing these conflicts. Adopting this prophylactic approach would mean banning a dominant firm from entering any market that it already serves as a platform—in other words, from competing directly with the businesses that depend on it. In the case of Amazon, for

413. See STUCKE & GRUNES, supra note 47, at 74.
414. For some of the potential concerns raised by this deal, see Kevin Carty, Will Uber Rouse the Trustbusters?, SLATE (Aug. 9, 2016, 11:22 AM), http://www.slate.com/articles/technology/future_tense/2016/08/uber_s_deal_with_didi_chuxing_could_open_it_up_to_antitrust_scrutiny.html [http://perma.cc/F4NT-AYRZ].
415. See id. See generally STUCKE & GRUNES, supra note 47 (analyzing how Big Data issues relate to competition laws and policy).
417. This is a version of the “Separations Principle” that Tim Wu recommends for information industries. Wu, supra note 316, at 305 (“More than anything else, the preceding chapters chronicle the corrupting effects of vertically integrated power. A strong stake in more than one layer of the industry leaves a firm in a position of inherent conflict of interest. You can-
example, this prophylactic approach would prohibit the company from running both a dominant retail platform and a dominant platform for third-party sellers. These two businesses would have to be separated into different entities, in part to prevent Amazon from using insights from its role as a third-party host to benefit its retail business, as it reportedly does now.418

This form of prophylactic ban has a long history in banking law.419 A core principle of banking law is the separation of banking and commerce.420 “U.S. commercial banks generally are not permitted to conduct any activities that do not fall within . . . the statutory concept of ‘the business of banking.’”421 More specifically, the Bank Holding Company Act of 1956 forbids firms that own or control a U.S. bank from engaging in business activities other than banking or managing banks.422 The main exception is that a bank that qualifies as a “financial holding company” “may conduct broader activities that are ‘financial in nature,’ including securities dealing and insurance underwriting.”423

The policy goals of this regime are worth reviewing because they have analogues in antitrust and competition policy. The main justifications for preserving the separation between banking and commerce have “included the needs to preserve the safety and soundness of insured depository institutions, to ensure a fair and efficient flow of credit to productive [businesses], and to prevent excessive concentration of financial and economic power in the financial sector.”424 All three concerns are linked to the fact that banks serve as critical intermediaries in our economy. The “safety and soundness” concern traces to the

not serve two masters, and the objectives of creating information are often at odds with those of disseminating it. That is the very first reason for the Separations Principle.”).

418. See supra Section IV.D.

419. This prophylactic approach has also been applied in the power industry. For example, in 1996, the Federal Energy Regulatory Commission issued a mandate requiring vertically integrated utilities to “functionally separate their generation, transmission, and distribution business, and provide transmission access to all generators on transparent, nondiscriminatory terms.” Sandeep Vaheesan, Reviving an Epithet: A New Way Forward for the Essential Facilities Doctrine, 3 UTAH L. REV. 911, 927 (2010).


421. Omarova, supra note 420, at 268.


424. Id. at 275.
idea that our banking system is too vital to be subject to the risks of other business activities. The concern about fairness and efficiency centers on the idea that allowing banks to be affiliated with commercial companies may encourage banks to issue credit on the basis of how those lending decisions will affect their commercial affiliates, thereby distorting competition. The practices this may trigger—“price discrimination, unfair restriction of access to credit, and other anticompetitive banking practices”—would both “hurt the individual commercial companies not affiliated with banks” and undermine national “productivity and growth.” Lastly, seeking “the prevention of excessive concentration of economic . . . power” among “large financial-industrial conglomerates” recognizes that this market power tends to concentrate political power while also creating systemic dangers of “too-big-to-fail” conglomerates.

Like bank holding companies, Amazon—along with a few other dominant platforms—now play a crucial role in intermediating swaths of economic activity. Amazon itself effectively controls the infrastructure of the internet economy. This level of concentrated control creates hazards analogous to those recognized in banking law. In light of this control, the conflicts of interest created through Amazon’s expansion into distinct lines of business are especially troubling. As in banking, enabling an essential intermediating entity to compete with the companies that depend on it creates bad incentives. Allowing a vertically integrated dominant platform to pick and choose to whom it makes its services available, and on what terms, has the potential to distort fair competition and the economy as a whole.

The other two concerns—safety and soundness, and excessive economic and political power—are also worth considering. It is true that Amazon (and other dominant platforms like Uber and Google) have extended directly into financial services. But its level of involvement in these businesses, at least at

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425. See id. at 275-76.
426. Id. at 276.
427. Id.
428. Id. at 275-77. Notably, several banking regulations that previously sought to prevent concentration of systemic risk in our financial system were repealed by Congress in the 1990s—leading in part to the “too-big-to-fail” crisis. See JOHNSON & KWAK, supra note 179.
the current scale, is unlikely to concentrate financial risk in ways that warrant concern. Rather, the systemic risks created by concentration among platforms are of a different kind. One involves concentration of data. That a huge share of consumer retail data may be concentrated within a single company makes hacks of or technical failures by that company all the more disruptive. The 2013 hack into Target’s system—as a result of which up to 110 million consumers had personal information stolen430—could have been orders of magnitude more disruptive had the hacked entity been Amazon. A few instances where Amazon Web Services crashed led to disruptions for scores of other businesses, including Netflix.431

Lastly, there is sound reason to ask whether permitting Amazon to leverage its platform to integrate across business lines hands it undue economic and political power.432 While this subject invites much deeper consideration than


431. There have been some policy debates about whether Google should be considered “critical infrastructure.” See, e.g., Eric Engleman, Google Exception in Obama’s Cyber Order Questioned as Unwise Gap, Bloomber [Mar. 5, 2013, 12:01 AM], http://www.bloomberg.com/news/articles/2013-03-05/google-exception-in-obama-s-cyber-order-questioned-as-unwise-gap [http://perma.cc/sZ2M-HVU3]. That debate has not yet extended to Amazon, but—given the growth of Amazon Web Services—it may be appropriate.

what this Note will provide, studies interviewing the host of businesses that now depend on Amazon—retailers, manufacturers, publishers, to name a few—reveal that the power it wields is acute. History suggests that allowing a single actor to set the terms of the marketplace, largely unchecked, can pose serious hazards. Limiting Amazon’s reach through prophylactic bans on vertical integration—and thereby forcing it to split up its retail and Marketplace operation, for example—would help mitigate this concern.

B. Governing Dominant Platforms as Monopolies Through Regulation

As described above, one option is to govern dominant platforms through promoting competition, thereby limiting the power that any one actor accrues. The other is to accept dominant online platforms as natural monopolies or oligopolies, seeking to regulate their power instead. In this Section, I sketch out two models for this second approach, traditionally undertaken in the form of public utility regulations and common carrier duties. Industries that historically have been regulated as utilities include commodities (water, electric power, gas), transportation (railroads, ferries), and communications (telegraphy, telephones). Critically, a public utility regime aims at eliminating competition: it accepts the benefits of monopoly and chooses instead to limit how a monopoly may use its power.

Although largely out of fashion today, public utility regulations were widely adopted in the early 1900s, as a way of regulating the technologies of the industrial age. Animating public utility regulations was the idea that essential network industries—such as railroads and electric power—should be made available to the public in the form of universal service provided at just and reasonable rates. The Progressive movement of the early twentieth century embraced public utility as a way to use government to steer private enterprise toward public ends. It was precisely because essential network industries often required scale that unregulated private control over these sectors often led to abuse of monopoly power. Famously, the Interstate Commerce Commission—which instituted a form of common carriage for railroads—was created partly

435. Id. at 1643.
in response to the abusive conduct of railroads, whose control over an essential facility enabled them to pick winners and losers among farmers. 436

In the United States, the first case applying public utility regulations to a private business was *Munn v. Illinois*, in which the Supreme Court upheld state legislation establishing maximum rates that companies could charge for the storage and transportation of grain. 437 When one “devotes his property to a use in which the public has an interest, he, in effect, grants to the public an interest in that use, and must submit to be controlled by the public for the common good,” Chief Justice Waite wrote. 438 “[W]hen private property is devoted to a public use, it is subject to public regulation.” 439 While the decision ushered into doctrine the principle of common carriers, the question of when a business was truly “affected with the public interest” was highly contested. 440

Most importantly, “public utility was seen as a common, collective enterprise aimed at managing a series of vital network industries that were too important to be left exclusively to market forces.” 441 At the level of policy, public utility regulations also enabled “utilities to secure capital at lower cost and to channel it into very large technological systems,” and thus was a way to “socialize the costs of building and operating” a centralized system while “protecting consumers from the potential abuses associated with natural monopoly.” 442

Given that Amazon increasingly serves as essential infrastructure across the internet economy, applying elements of public utility regulations to its business is worth considering. 443 The most common public utility policies are (1) requiring nondiscrimination in price and service, (2) setting limits on rate-setting, and (3) imposing capitalization and investment requirements. Of these three traditional policies, nondiscrimination would make the most sense, while

437. 94 U.S. 113 (1877).
438. Id. at 126.
439. Id. at 130.
440. Id.
442. Id. at 1643.
rate-setting and investment requirements would be trickier to implement and, perhaps, would less obviously address an outstanding deficiency.

A nondiscrimination policy that prohibited Amazon from privileging its own goods and from discriminating among producers and consumers would be significant. Given that many of the most notable anticompetitive concerns around Amazon's business structure arise from its vertical integration and the resulting conflicts of interest, applying a nondiscrimination scheme would curb the anticompetitive risk. This approach would permit the company to maintain its involvement across multiple lines of business and permit it to enjoy the benefits of scale while mitigating the concern that Amazon could unfairly advantage its own business or unfairly discriminate among platform users to gain leverage or market power. Coupling nondiscrimination with common carrier obligations—requiring platforms to ensure open and fair access to other businesses—would further limit Amazon's power to use its dominance in anticompetitive ways.

Rate setting would be trickier. This would involve setting a ceiling on the prices that Amazon can charge to both producers and consumers. Traditionally, governments used rate setting by identifying a “fair return” that a company deserved for its investment, and then calculated consumer or producer prices accordingly. But calculating “fair return” may prove more challenging in the online platform context than it did with traditional public utilities. One potential source of difficulty is that Amazon has invested so widely across such a range of projects that it is not clear which the government should peg to “rate of return.” Another complicating factor is that part of Amazon's investment in these platforms, so far, has involved losing money through below-cost pricing.

Lastly, it is not clear that imposing capitalization and investment requirements would be necessary. A traditional reason for these policies has been that the economics of creating and running a utility can be unfavorable, occasionally leading private companies to scrimp on investing and upkeep. In Amazon's case, the company is choosing to expand at a speed and scale that is pushing it into the red—but it is not clear that the activity is intrinsically loss generating. That said, a public utility regime could also be justified on the basis

444. Net neutrality is a form of common carrier regime. For an exposition of why net neutrality and search neutrality should apply to major platforms, see Frank Pasquale, Internet Nondiscrimination Principles: Commercial Ethics for Carriers and Search Engines, 2008 U. CHI. LEGAL F. 263.

445. A “fair return” has been variously defined. For an overview of public utility regulatory regimes, see WILLIAM A. PRENDERGAST, PUBLIC UTILITIES AND THE PEOPLE 2 (1933) (“What is a utility? . . . It is commonly used to denote a business the product or use of which serves the public generally . . . . [It is] a business which cannot choose its clients or customers.”).
that succeeding as an online platform requires incurring heavy losses—a model that Amazon and Uber have pursued. This approach would treat market-share chasing losses as a capital investment, suggesting the public utility domain may be appropriate.

Practically, ushering in a public utility regime may prove challenging. Public utility regulations suffered an intellectual and policy attack around mid-century. For one, critics challenged the theory of natural monopoly as an ongoing rationale for regulation, arguing that rapid economic and technological change would render monopolies temporary problems. Second, critics portrayed public utility as a form of corruption, a system in which private industry executives colluded with public officials to enable rent seeking. Ultimately these lines of criticism substantially thinned the very concept of public utility. The trend was part of a broader effort to idealize competitive markets and assume that nonintervention was almost always superior to interference. Although the concept of public utility regulation remains somewhat maligned today, there are signs that a robust movement to apply utility-like regulations to services that widely register as public—such as the internet—can catch wind. The core of the net neutrality debates, for example, involved foundational discussions about how to regulate the communication infrastructure of the twenty-first century. The net neutrality regime ultimately adopted falls squarely in the common carrier tradition.

Given Amazon's growing share of e-commerce as a whole, and the vast number of independent sellers and producers that now depend on it, applying some form of public utility regulation could make sense. Nondiscrimination principles seem especially apt, given that conflicts of interest are a primary hazard of Amazon's vertical power. One approach would apply public utility regulations to all of Amazon's businesses that serve other businesses. Another would require breaking up parts of Amazon and applying nondiscrimination principles separately; so, for example, to Amazon Marketplace and Amazon Web Services as distinct entities. That said, given the political challenges of ushering in such a regime, strengthening and reinforcing traditional antitrust principles may—in the short run—prove most feasible.

A lighter version of the regulatory approach would be to apply the essential facilities doctrine. This doctrine imposes sharing requirements on a natural

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446. I am indebted to David Kim for making this connection at the Yale Law Journal Author Seminar Workshop on October 12, 2016.
monopoly asset that serves as a necessary input in another market. As Sandeep Vaheesan explains:

This doctrine rests on two basic premises: first, a natural monopolist in one market should not be permitted to deny access to the critical facility to foreclose rivals in adjacent markets; second, the more radical remedy of dividing the facility among multiple owners, while mitigating the threat of monopoly leveraging, could sacrifice important efficiencies.  

Unlike the prophylactic ban on integration, the essential facilities route accepts consolidated ownership. But recognizing that a vertically integrated monopolist may deny access to a rival in an adjacent market, the doctrine requires the monopolist controlling the essential facility to grant competitors easy access. This duty has traditionally been enforced through regulatory oversight.

While the essential facilities doctrine has not been precisely defined, the four-factor test enumerated by the Seventh Circuit in *MCI Communications Corp. v. American Telephone & Telegraph Co.* forms the basis of an essential facility claim today. Under that test, a facility is essential and must be shared if four conditions are met: (1) a monopolist controls the essential facility; (2) a competitor is unable practically or reasonably to duplicate the essential facility; (3) the monopolist is denying use of the facility to a competitor; and (4) providing the facility is feasible. The *MCI* court also held that, in order to be deemed essential, the facility must be a “necessary input in a distinct, vertically related market.”

While the Supreme Court has never recognized nor articulated a standard for “essential facility,” three Supreme Court rulings “are seen as having established the functional foundation” for the doctrine. In 2004, however, the Court disavowed the essential facilities doctrine in dicta, leading several commentators to wonder whether it is a dead letter. This decision by the Court to effectively reject its prior case law on essential facilities followed challenges

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450. 708 F.2d 1081, 1132-33 (7th Cir. 1982).
451. *Id.* This last factor allows for efficiency defenses.
on other fronts: notably from Congress, enforcement agencies, and academic scholars, all of whom have critiqued the idea of requiring dominant firms to share their property.455

Treating aspects of Amazon’s business as “essential facilities” seems appropriate, given that factors two, three, and four of the MCI test are likely to hold for at least one line of business. The first factor—whether Amazon is a “monopolist”—is subject to the risk that doctrine takes an excessively narrow view of what constitutes a “monopolist,” a definition that may be especially out of touch with dominance in the internet age.

Essential facilities doctrine has traditionally been applied to infrastructure such as bridges, highways, ports, electrical power grids, and telephone networks.456 Given that Amazon controls key infrastructure for e-commerce, imposing a duty to allow access to its infrastructure on a nondiscriminatory basis make sense. And in light of the company’s current trajectory, we can imagine at least three aspects of its business could eventually raise “essential facilities”-like concerns: (1) its fulfillment services in physical delivery; (2) its Marketplace platform; and (3) Amazon Web Services. While the essential facilities doctrine has not yet been applied to the internet economy, some proposals have started exploring what this might look like.457 Pursuing this regime for online platforms could maintain the benefits of scale while preventing dominant players from abusing their power.

**Conclusion**

Internet platforms mediate a large and growing share of our commerce and communications. Yet evidence shows that competition in platform markets is flagging, with sectors coalescing around one or two giants.458 The titan in e-commerce is Amazon—a company that has built its dominance through aggres-

455. See Brett Frischmann & Spencer Weber Waller, Revitalizing Essential Facilities, 75 ANTITRUST L.J. 1, 3 (2008).
456. Id. at 4.
457. For more pieces grappling with the possibility of applying the “essential facilities” doctrine to internet platforms, see Frank Pasquale, Dominant Search Engines: An Essential Cultural & Political Facility, in THE NEXT DIGITAL DECADE 401 (Berin Szoka et al. eds., 2011); and Zachary Abrahamson, Comment, Essential Data, 124 YALE L.J. 576 (2014).
sively pursuing growth at the expense of profits and that has integrated across many related lines of business. As a result, the company has positioned itself at the center of Internet commerce and serves as essential infrastructure for a host of other businesses that now depend on it. This Note argues that Amazon’s business strategies and current market dominance pose anticompetitive concerns that the consumer welfare framework in antitrust fails to recognize.

In particular, current law underappreciates the risk of predatory pricing and how integration across distinct business lines may prove anticompetitive. These concerns are heightened in the context of online platforms for two reasons. First, the economics of platform markets incentivize the pursuit of growth over profits, a strategy that investors have rewarded. Under these conditions predatory pricing becomes highly rational—even as existing doctrine treats it as irrational. Second, because online platforms serve as critical intermediaries, integrating across business lines positions these platforms to control the essential infrastructure on which their rivals depend. This dual role also enables a platform to exploit information collected on companies using its services to undermine them as competitors.

In order to capture these anticompetitive concerns, we should replace the consumer welfare framework with an approach oriented around preserving a competitive process and market structure. Applying this idea involves, for example, assessing whether a company’s structure creates anticompetitive conflicts of interest; whether it can cross-leverage market advantages across distinct lines of business; and whether the economics of online platform markets incentivizes predatory conduct and capital markets permit it. More specifically, restoring traditional antitrust principles to create a presumption of predation and to ban vertical integration by dominant platforms could help maintain competition in these markets. If, instead, we accept dominant online platforms as natural monopolies or oligopolies, then applying elements of a public utility regime or essential facilities obligations would maintain the benefits of scale while limiting the ability of dominant platforms to abuse the power that comes with it.

My argument is part of a larger recent debate about whether the current paradigm in antitrust has failed. Though relegated to technocrats for decades, antitrust and competition policy have once again become topics of public concern.459 Last year, the Wall Street Journal reported that “[a] growing number of

459. In a striking speech welcoming the public and political attention towards antitrust, Assistant Attorney General for Antitrust Renata Hesse stated, “Antitrust is too important to be left solely in the hands of antitrust experts.” Renata Hesse, Assistant Att’y Gen., Antitrust Div., Dept’ of Justice, Remarks at the 2016 Global Antitrust Enforcement Symposium: And Never the Twain Shall Meet? Connecting Popular and Professional Visions for Antitrust Enforcement-
industries in the U.S. are dominated by a shrinking number of companies.”

In March 2016, the Economist declared, “Profits are too high. America needs a dose of competition.” Policy elites, too, have weighed in, issuing policy papers and hosting conferences documenting the decline of competition across the U.S. economy and assessing the resulting harms, including a drop in start-up growth and widening economic inequality. Antitrust even made it into the 2016 presidential campaign: Democrats included competition policy in their party platform for the first time since 1988, and in October of the same year, presidential candidate Hillary Clinton released a detailed antitrust platform, highlighting not only a need for more vigorous enforcement but for an enforcement philosophy that takes into account market structure.

Animating these critiques is not a concern about harms to consumer welfare, but the broader set of ills and hazards that a lack of competition breeds.


464 One of the most striking aspects of Hesse’s speech is that she distances herself from a strict consumer-welfare based approach—departing from current orthodoxy:
As Amazon continues both to deepen its existing control over key infrastructure and to reach into new lines of business, its dominance demands the same scrutiny. To revise antitrust law and competition policy for platform markets, we should be guided by two questions. First, does our legal framework capture the realities of how dominant firms acquire and exercise power in the internet economy? And second, what forms and degrees of power should the law identify as a threat to competition? Without considering these questions, we risk permitting the growth of powers that we oppose but fail to recognize.

But, although we believe competition maximizes consumer welfare, the ultimate standard by which we judge practices is their effect on competition, not on consumer welfare. It is certainly relevant when a merger will lead to higher prices and reduced output because these results are hallmarks of reduced competition. But the law instructs us to examine whether a merger may substantially lessen competition and that means we must sometimes look to other evidence of harm to competition.

Hesse, supra note 459.
SHARING ECONOMY: A MULTIFACETED PHENOMENON

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Keywords: digital economy; online platforms; sharing economy; advocacy; disruptive innovation

Abstract: Online platforms play a prominent role in the digital economy expanding the “two-sided” or “multi-sided” business model in an unprecedented way. In that context, sharing economy platforms have disrupted some traditional sectors through innovative business propositions, creating and shaping new markets. On the one hand, the sharing economy offers to consumers more efficient, personalized services at competitive prices, exploiting the potential of under-utilized assets and of technology. On the other hand, it blurs the lines between supply and demand, creating significant hurdles to regulators. It can also raise competition concerns as indirect network effects, once the market is disrupted, can determine the creation of a dominant position. The inclusion of some contractual clauses, or some forms of control over prices, might amount to an anticompetitive behavior. Moreover, from a consumer protection perspective, the main issue consists in identifying the conditions necessary to qualify the individual interacting in the digital platform as a professional. The Italian Competition Authority has specifically dealt with the sharing economy applying its broad set of advocacy powers in the sectors of ride-sharing, home-sharing and home restaurant in relation to market access requirements and/or taxation. More in general, it has also tackled conducts by digital platforms, that might be implemented also by sharing economy operators, applying its antitrust enforcement and consumer protection tools. To conclude, the sharing economy is a cross-sector phenomenon that intersects various disciplines, including competition, and several primary public policy interests are at stake. The main issue tackled in the present contribution is how to balance them and who, between policy and decision makers, is better placed to do so.

1. INTRODUCTION: DIGITAL, DISRUPTING AND SHARING ECONOMIES

The rapid development of Internet has greatly affected the functioning of the economy and digital technologies such as big data, artificial intelligence and the internet of things will continue to shape the transformation of European industries.

In that context, online platforms - that include a wide range of activities such as search engines, social media, e-commerce and sharing

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3 The opinions expressed by the authors are personal and do not necessarily reflect the position of the Italian Competition Authority. The authors are grateful to Fabrizia Farci - stagiaire in Commissioner’s Muscolo staff - for the research work conducted.
economy portals play a prominent role as they are the most accessed websites. The nowadays ubiquitous connectivity have, indeed, expanded the platform business model in an unprecedented way.

Moreover, platforms may have the ability to innovate, sometimes in a disruptive way. Indeed, innovations not only consist of incremental and predictable improvements of a given product or process, but can also create and shape new markets.

Disruptive innovation may be classified in several ways, as it can affect both highly regulated and un-regulated markets, extends to new businesses, as well as concerns traditional ones, can be implemented both by established firms and start-ups and may disrupt the previous business model of the company itself or the activity of competitors.

The features of sharing economy platforms are similar to those of other digital platforms. Platforms generally operate as "two-sided" or "multi-sided" markets where different groups of users are brought together by an intermediary in order to facilitate their interaction and network effects play a central role.

The sharing economy has disrupted some traditional sectors through innovative business models, especially in the ride-sharing and home-sharing sectors. Its rise is paradigmatic of the unforeseen development of entirely new market propositions.

On the one hand, the sharing economy offers to consumers more efficient, personalized services at competitive prices, exploiting the potential of under-utilized assets and of technology. On the other hand, it blurs the lines between supply and demand, creating significant hurdles to regulators.

It is a cross-sector phenomenon that intersects various disciplines - such as public safety, health, taxation, employment - including competition, especially the dynamic one. There are several primary public policy interests at stake. One of the main issues determined by the rise of the sharing economy is how to balance them and who is better placed to do so.

The remainder of this contribution is organized as follows: section 2) describes the sharing economy phenomenon and its economic and legal definitions; section 3) illustrates the issues that might arise both in the competition and consumer protection areas; section 4) illustrates the Italian Competition Authority’s (hereinafter, also ICA) interventions; section 5) concludes on the balance to be found between competition and other primary public interests and on who should intervene.


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2. **THE PHENOMENON AND ITS DEFINITION: ECONOMIC AND LEGAL ASPECTS**

Given the great variety and diversity of business models, there is no universally accepted definition of the sharing economy.

From an economic perspective, there seems to be consensus on the fact that it concerns the temporary usage of under-utilised assets and that the underlying products and services should be offered through an online platform.

Other possible categorizations refer to whether they should facilitate only consumers-to-consumers, or also business-to-consumers, transactions and if they should only be aimed at sharing costs or include also for-profit business models. Most definitions seem to consider a narrower perimeter limited to exchanges among individuals, as taking into consideration also business-to-consumers exchanges would include also supplies that are already offered on the market.

As for the impact of the sharing economy, revenues increased significantly especially in some core sectors such as ride-sharing, home-sharing, collaborative finance, household services and professional and technical services. A research estimates that, depending on the scale of regulatory obstacles, the economic theoretical benefit deriving from the sharing economy can add up in the medium/longer term from 134 to 572 billion euros annually across the EU-28.\(^9\)

Technological developments - consisting mainly in the advent of the Internet and the diffusion of smartphones - facilitates the rise of the sharing economy. More specifically, the instantaneous scalability of the business proposition provides an immediate access to a worldwide demand. Also the growth of the reach of digital reputation mechanisms as well as of online electronic payments provide a safe and efficient context where to build consumer trust.

Many sharing economy platforms are likely to be two-sided markets.\(^10\) Those markets are widely developed both offline and online and are characterized by some common features: (i) two distinct group of users operate on the

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8 The various definitions provided by the literature have in common the exploitation of under-utilised assets through online platforms. For a review of such definitions see Petropoulos G. (2017), “An economic review of the collaborative economy”, Policy Contribution, Issue n. 5, Bruegel.


platform, (ii) because of the existence of indirect externalities, the utility that each group of users derives from the participation to the system increases with the number of users active on the other side of the market, (iii) the users of each side of the market do not take into account the effects of their decision - to participate or not to participate to a given two-sided market - on the other side of the market, while the intermediary - the online platform - can internalize those network externalities through the price structure.\textsuperscript{13}

Among possible classifications elaborated in the literature\textsuperscript{14}, online platforms may be distinguished between attention and matching ones. Attention platforms normally provide free services subsidized by advertising, alimented by users data and attention, while matching platforms are essentially transaction marketplaces where frequently the side of the market with higher elasticity of demand is subsidized by the other side of the market.\textsuperscript{15}

The sharing economy gives rise to platforms that are mostly classifiable as matching platforms, where the intermediary’s revenues derive from commissions drawn directly from one or both users groups.\textsuperscript{16} Moreover, both user groups have their data collected to improve the matching algorithm and, ultimately, the quality of the platform in terms of personalized intermediation.\textsuperscript{17}

The analysis of sharing economy platforms does not include the additional complexities typical of attention platforms in terms of the definition of the relevant market, the assessment of market power and the determination of the appropriate theory of competitive harm.\textsuperscript{18}

From a legal point of view, the European Commission’s definition includes “business models where activities are facilitated by collaborative platforms that create an open marketplace for the temporary usage of goods or services often provided by private individuals”.\textsuperscript{19}


\textsuperscript{15} OECD (2016), “Big data: bringing competition policy to the digital era - Background note by the Secretariat”.


\textsuperscript{19} European Commission (2016), Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “A European agenda for the collaborative economy”.
On the supply side, it considers, in addition to individuals, also “micro entrepreneurs and (small) businesses to offer services”\(^{20}\). These service providers can share with users, that operate on the demand side, assets, resources, time and/or skills.

3. SHARING ECONOMY, COMPETITION AND CONSUMER PROTECTION

The antitrust analysis of sharing economy platforms largely coincides with that of other online two-sided platforms.

On one hand, sharing economy platforms increase consumer welfare in many ways and are inherently pro-competitive.\(^{21}\)

First of all, as most online platforms, they display features such as the reduction of search and transaction costs, through better interaction between suppliers and users, as well as the reduction of information asymmetries, taking advantage of users ratings.

Then, the asset-sharing typical of sharing economy platforms increases allocative efficiency through the use of under-utilised capital.\(^{22}\) This increases the possibility of choice of consumers, through the supply of innovative services that are often different and cheaper than traditional ones.

Furthermore, it reduces barriers to entry achieving scale on the supply side due to the involvement of individuals as service providers\(^{23}\) and making markets more competitive, as well as it determines a distributive effect as it allows access to services also to consumer categories that do not benefit from existing services.

However, on the other hand, the sharing economy might raise competition concerns. The main competitive implication of the above described features of two-sided markets is that indirect network effects, once the market is disrupted, can determine the creation of a dominant position and become an insurmountable barrier to entry in digital markets for new entrants.

In order to attract demand, platforms need to enroll an adequate number of sellers on the supply side. At the same time, to attract sellers, the platform has to subscribe enough buyers. This positive feedback, also referred to as a “snowball effect”, can lead to a position of market power immune to entry.\(^{24}\) Indeed, if a


new entrant does not have a sufficient number of users on each side of the market, there would be no interest for one side to interact with the other.

Also the collection of data from both users groups can increase barriers to entry in these digital markets. The data accumulated by the incumbent platform, and the resulting increased quality of its intermediation algorithm, can represent a further significant competitive advantage, incentivising suppliers and buyers to continuing using the dominant platform.\textsuperscript{25}

Furthermore, those platforms tend to display a very specific cost structure. High sunk costs are often accompanied by low marginal costs possibly generating economies of scale. Consequently, such markets tend to be concentrated and often lead to so-called “\textit{winner takes all}” outcomes.

Once a dominant position has been achieved, Antitrust Authorities need to monitor the incumbent’s conduct in order to keep digital markets open, assessing firms’ conduct in view of a possible prejudice to innovation in a dynamic vision of competition.

Even if the option not to interfere with this innovative process might often be the best option, some possible anticompetitive issues have been identified. More specifically, the inclusion of some clauses in the contracts between suppliers and platforms may exclude entry in digital markets.

First of all, most favoured nation (hereinafter, MFN) clauses require that sellers always apply to the contracting platform the lowest price. Those clauses can restrict competition on specific online markets, as a possibly lower commission applied by a new entrant to the sellers cannot be translated into a lower price applied by the sellers to the consumers.\textsuperscript{26}

The literature has also identified other possible sources of competitive harm in relation to platforms that can exploit their monopoly position for access, on one side of the market, to single-homing users when dealing, on the other side of the market, with multi-homing ones, leading to higher prices being charged to the multi-homing side.\textsuperscript{27}

Competition Authorities should, consequently, monitor the possible imposition by sharing economy dominant providers of rules that favor exclusivity, or single-homing, to their platforms.\textsuperscript{28}

Furthermore, the data collected by the European Commission from about 500 sharing economy platforms show that a large majority of them set terms and conditions and that a


substantial number of platforms go as far as fixing prices or giving guidance on prices.\textsuperscript{29}

In that regard, it has also been envisaged that some forms of control that sharing economy platforms exert over the providers of the underlying product or service might amount to an anticompetitive behavior. Some authors, for example, argue that the pricing algorithms used by Uber might be considered as a so-called “hub and spoke” illegal agreement, reducing downstream competition between independent professional drivers.\textsuperscript{30}

Furthermore, some National Competition Authorities (hereinafter, also NCAs) - and among them the ICA - can intervene not only as antitrust enforcers, but also through their consumer protection powers.

More specifically, the sharing economy gives rise to the progressive confusion between the definition of consumer and the one of professional, creating the new term of “prosumer”. The main issue consists in identifying the conditions necessary to qualify the individual interacting in the digital platform as a professional.

For instance, on the basis of the Italian Consumer Protection Code, the consumer “acts for purposes unrelated to any entrepreneurial, business, artisanal or professional activity”, while the professional “acts in the exercise of its own entrepreneurial, business, artisanal or professional activity”.

In this respect, the European Commission\textsuperscript{31} observes that the circumstance that a person exercises a business activity in the context of the sharing economy does not automatically involve its qualification as a professional. It is recommended to act case by case, since there could be some quantitative thresholds above which the provider’s activity could be defined as professional.

The Commission identifies some factors, which combined with each other can be useful to the qualification of the user exploiting the service/platform of the sharing economy as a professional, such as: a high frequency in the supply of the service could indicate that the provider acts as a professional activity; the existence of a profit-seeking purpose should be considered as pursued in case of a real compensation being paid by the passenger and not only of a simple cost sharing; the higher the turnover generated by the provider the higher is the probability that the provider qualifies as a professional.

These indications might be helpful to determine if a specific case falls within the application of the Consumer Protection Code, therefore assessing the possible existence of unfair commercial practices, consumer rights violations or unfair clauses.


Moreover, the sharing economy activities are mainly conducted through online platforms, in respect to which attention must be paid to the composition of prices, and their communication to customers, to consumer rights and to the truthfulness and the role of consumer reviews as a mutual trust instrument. Indeed, the reviews are one of the main instrument of choice in the sharing economy business.  

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4. THE ITALIAN COMPETITION AUTHORITY’S INTERVENTIONS

ICA has specifically dealt with the sharing economy applying its broad set of advocacy powers, also those that go beyond the traditional possibility to deliver non-binding opinions on existing and draft legislation.  

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Traditional powers consist essentially of non-binding opinions - ex officio or requested by other administrations - that might concern all legislative and regulatory measures, adopted by central or local administrations, which restrict competition. Among new powers, ICA has the possibility to challenge before administrative Courts any administrative act - by central or local administrations - which restricts competition. It is a two steps process where ICA, firstly, delivers a reasoned opinion to the concerned administration and, then, should the administration fail to comply within sixty days, ICA may lodge an appeal before the competent administrative Court within the following thirty days. ICA has also used in an innovative way the power to intervene - on issues relating to the application of Article 101 or Article 102 of the Treaty on the Functioning of the European Union (hereinafter, also TFEU) - amicus curiae towards national Courts on the basis of article 15.3 of Council of the European Union (2002), “Regulation n. 1/2003 on the implementation of the rules on competition laid down in articles 81 and 82 of the Treaty”.


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often unmet and a possible reduction of prices for users.

In Italy, a Law dating back to 1992 still disciplines the non-scheduled transportation services, including both licensed taxis and authorized professional drivers.

That Law has been emended, however, the effectiveness of these emending rules has been suspended several times, recently until the end of 2018, creating a legal uncertainty that often determined different outcomes in civil Courts. These suspensions have been justified by the necessity of a legislative reform involving transport services.

In July 2015, the Court of Milan issued an injunction against the use of Uber Pop’s application, that connects non-professional drivers to consumers, in the Italian territory, ascertaining the violation of the Civil Code and highlighting that the platform’s activity cannot be provided at the detriment of the overriding public interest of passengers safety.

Moving to ICA’s activity, in recent years it has intervened several times in the ride-sharing sector, using its advocacy powers to tackle also the issue of non-professional drivers. In that regard, as a general remark, ICA whishes the introduction of a minimal regulation aimed at balancing the different primary public interests - competition and road safety - at stake.

That regulation could define, in addition to taxi and professional drivers, a third category of suppliers of non-scheduled transportation service consisting of digital platforms connecting passengers to non-professional drivers. More specifically, ICA advocated that such regulation should be the less intrusive possible, limited to foreseeing the registration of platforms in a public register and the identification of specific requirements and obligations for platforms and drivers.

As the Uber issue has expanded to a broader European context, a Spanish Court requested, in 2015, a preliminary ruling of the European Court of Justice (hereinafter, also ECJ) on the regulation applicable to Uber Pop.

In its ruling, the Court of Justice stated that Uber must be classified as “a service in the field of transport”, rather than an intermediation service through an application for smartphones, since Uber also influences the conditions of the service. It is, therefore, for the Member States to regulate the conditions under which such services are to be provided.

April 2017 that inhibited the services of Uber Black, a platform providing professional drivers services to consumers, throughout Italy.

34 Law No. 21/92.
35 Budget Law for 2018.
36 Court of Milan (2015), Decision of the joined cases No. 35445/2015 and 36491/2015.
37 ICA, (2015), “Opinion concerning the regulation of the transportation of persons by public non-scheduled transportation services”, AS1222; ICA (2017), “Opinion on the reform of the non-scheduled transportation services”, AS1354. Moreover, using for the first time this power, the ICA also intervened amicus curiae in the appeal procedure which annulled (Court of Rome, 26 May 2017) the precautionary measure granted by the Court of Rome (7
In the field of home-sharing\textsuperscript{39}, ICA observed that the regulation introduced by the Lazio Region that established unreasonably demanding requirements for non-hotel accommodation facilities resulted in an unjustified limitation of competition.\textsuperscript{40}

The Regional Administrative Tribunal of the Lazio region, that confirmed the appeal filed by ICA against the legitimacy of these regulatory provisions, reiterated the principle that “access to and operation of service activities, as an expression of the freedom of economic initiative, cannot be subjected to unjustified and discriminatory limitations and these limitations, to be legitimate, must in any case be justified by imperative reasons of general interest”.\textsuperscript{41}

As for taxation\textsuperscript{42}, the ICA observed that market access is not the only limitation that can be introduced to unduly restrict competition. Indeed, ICA recently adopted an opinion concerning the possible anticompetitive impact of the fiscal legislation of home-sharing, as only the intermediaries that collect the rental fee are also requested to intervene as a tax collector and proceed for the payment of the collected tax to the State.

Even acknowledging that the purpose of the legislation is to fight tax evasion, in ICA’s opinion such restriction appears not to be proportionate, as it can discriminate among different possible business models of online intermediation.

In relation to online intermediaries, the fiscal burden represents an additional administrative cost only weighing on those platforms which participate in the process of the payment of the rents to the house owners, thus discouraging them from making digital payment available to renters. Competition among online operators might therefore be affected, to the detriment of those allowing online payment, which is, moreover, often associated to commercial guarantees in favor of renters.

Lastly, the legislator also intended to regulate home restaurant activities, consisting of social eating events in private homes of non-professional cooks.\textsuperscript{43}

The ICA highlighted several restrictions that do not apply to traditional providers. First of all, by considering digital platforms as the only means to carry out home restaurant activities, the proposed legislation excludes any direct

\textsuperscript{39} ICA (2017), “Opinion pursuant to article 21-bis on the new discipline of non-hotel accommodations”, AS1447.

\textsuperscript{40} More specifically, the regulation introduced limitations on access to the market, providing dimensional constraints on some specific spaces. For example, it provided that the living room should have a minimum mandatory size. Moreover, it introduced constraints on the operation of these structures, increasing the duration of the mandatory closing period and establishing a minimum duration of three days.

\textsuperscript{41} After the decision of the Regional Administrative Tribunal of the Lazio Region, in February 2017, the ICA - see, ICA (2017), “Opinion concerning obstacles to the access and exercise of accommodation services in the Lazio Region”, AS1351 - used its advocacy powers in order to highlight the unjustified restrictions introduced again by the Lazio Region in two circulars.


\textsuperscript{43} ICA (2017), “Opinion on the draft law concerning the rules applicable to home restaurant services”, AS1365.
relationship between supply and demand outside such platforms.

Then, it sets out the maximum number of cover charges and the annual income of home restaurant activities and it precludes non-professional accommodation service providers from offering a home restaurant service.

In the ICA opinion, such measures appear to be unnecessary and not proportionate to the declared aim of guaranteeing fair competition in the sector and of promoting the culture of traditional food and quality. Home restaurant providers are deprived of the freedom to autonomously organize their economic activity.

Furthermore, health is anyway guaranteed by regulations on food safety and insurance obligations.

Moving to ICA’s antitrust enforcement practice in relation to another category of digital platforms, the one of e-commerce of services, it has intervened in relation to MFN clauses included in the contracts between hotels and online travel agents (hereinafter, OTAs) active in the online intermediation of hotel accommodations.  

The ICA was concerned that the MFN clauses might significantly restrict competition on the commissions required by OTAs to hotels, affecting final prices for hotel rooms, to the detriment, ultimately, of final consumers.

During the investigation, conducted in collaboration with the NCAs of France and Sweden, with the coordination of the European Commission, Booking.com - the market leader in Italy - submitted commitments consisting in a significant reduction of the scope of the MFN clauses. By limiting significantly the scope of MFN clauses, OTAs should be able to more effectively compete on the level of the commissions applied to hotels.

Those vertical restraints have been assessed as networks of vertical agreements that can restrict competition, but might also fall within the scope of the prohibition of abuses of dominant position.  

A recent case brought by the European Commission, with regard to the MFN clauses applied by an online book sales platform, was, indeed, defined as a possible abuse of dominant position.  

Similar clauses might create competition concerns also if adopted by sharing economy platforms as, likewise the platforms active in the intermediation of hotel accommodations or in online book sales, they could exclude competitors active at the same level of the value chain.

Following ICA’s decision to accept the commitments submitted by Booking.com, the Italian Parliament went further introducing a full prohibition of MFN clauses. Indeed, the Annual Law for Competition approved in


45 OECD (2015), “Hearing on across platform parity agreements - Note by Italy”.

2017\textsuperscript{47} provided that any covenant whereby a touristic accommodation company undertakes not to apply to the final client, by any means, instruments, prices, terms and any other conditions that are more favorable than those applied by the same company through third parties, irrespective of the law governing the agreement, is void. As part of the legislative procedure for the new bill, ICA’s President\textsuperscript{48} expressed concerns about the MFN provision, believing it to be excessively wide. More specifically, ICA’s President observed that the possible anti-competitiveness of such clauses was inextricably linked to the position of the operators in the market, who collectively held a 75% share in online hotel reservations. Moreover, the remedy introduced by the legislator excludes a case-by-case analysis of the actual effects of such clauses on competition. Italy is not alone as also France introduced an equivalent provision to oblige the OTAs not to apply MFN clauses in contracts entered into force with hotels.\textsuperscript{49}

Lastly, ICA intervened also using its consumer protection powers in relation to a digital platform active in travel intermediation. The intervention focused on reviews, one of the main instrument of consumer choice. More specifically, the ICA has ascertained the unfairness of the commercial practice implemented by TripAdvisor to disseminate misleading information about the sources of the reviews published on its website.

ICA found that TripAdvisor has adopted inadequate monitoring tools and procedures in relation to the phenomenon of false reviews. Consumers are wrongly induced to believe that the information provided is always reliable as being an expression of true tourist experiences.\textsuperscript{50}

5. CONCLUSION: INTERESTS OTHERS THAN COMPETITION, WHO SHOULD STRIKE THE BALANCE?

The sharing economy is not only disruptive but often also destructive. First of all, the evolution of digital services represents a process that inevitably generates a tension between incumbents and new entrants, blurring the lines between suppliers and users, professional and occasional services, entrepreneurs and employees.

Secondly, it also raises conflicts among different public interests, other than competition: consumers’ protection, that also means quality standards, as well as health, safety and employees’ protection and taxation.

\textsuperscript{47} Article 166 of Law 4 August 2017, n. 124.

\textsuperscript{48} Hearing of ICA’s President, Italian Senate of the Republic, 28 October 2015.

\textsuperscript{49} Article L311-5-1 of Law No. 990/2015 of 6 August 2015 states that “the hotel remains free to grant to the client any rebate or pricing advantage, of whatever nature, any clause stating the contrary being deemed void”.

\textsuperscript{50} ICA (2014), “Tripadvisor - false online reviews”, PS9345. ICA’s appeal against the ruling of the First Instance Administrative Court, that annulled its decision, is still pending before the Council of State.
The two features mentioned above are often inter-connected: disrupted incumbents usually complain that the infringement of the rules protecting such interests results in undermining the level playing field.\(^{51}\)

In such a context, a question of roles arises: who should strike the balance among the different and often conflicting interests involved in the surge of the new business models? The main issue regards the role of policy makers versus decision makers.

Facing the dilemma between regulation and enforcement as the proper approach to the sharing economy entails to weigh up the risks of over or under regulation versus the risks of over or under enforcement.

As far as the policy making process is at stake, the alternative between soft or hard law as the better ex-ante regulation of the emerging phenomenon is argued. However, also self-regulation stands as a third pillar in the debate.\(^{52}\)

Moreover, the sharing economy represents a challenge to regulation as the interference between current and new services, on one hand, generates uncertainty over the applicability of the already existing rules to the platforms and, on the other hand, asks for fixing the priority between deregulating down old services or regulating up the new ones.

As for the latter scenario, some authors call for a less intrusive economic regulation which relaxes market access restrictions over classic economic regulation\(^{53}\) and others advocate for regulation whose level depends on the degree to which the new technologies solve existing market failures.\(^{54}\)

As mentioned above, they make use of the level playing field argument, underlining unfair competitive advantages given to platforms by unjustified differences in regulation, as well as of the quality policy argument, based on the risk of lower quality transactions in case of inadequate regulation.

In general, the literature underlines how applying existing regulation to new business models may have the perverse effect of harming the consumers that the policy makers are there to protect and that, in many cases, a permissive presumption towards peer-to-peer businesses appears appropriate even if they do not entirely comply with existing regulations.\(^{55}\)


As far as alternatives to regulation are at stake, first of all, the literature analyses the risk of asymmetric information on sharing economy platforms and the role played by feedback systems. Asymmetric information may mean that peers cannot perfectly assess the quality of the transaction being undertaken or of the asset/service being shared. As a consequence, feedback mechanisms may be ineffective and the self-regulation process undermined.\textsuperscript{56}

However, there are authors who stress the importance of the increase in transparency for consumers on platforms, leading to the enhancement in the circulation of information and to the consequent reduction of asymmetry. In such an opinion, the peer reviewing and the peer pressure mechanisms may act as a new form of “invisible hand” on, consequently, unfettered markets.\textsuperscript{57}

In between regulation and enforcement stand the advocacy powers of the Competition Authorities, that result in advocating competition directed to policy makers by enforcers, who in such a role do not act as decision makers.

In this field, in more active jurisdictions, NCAs have already intervened, advocating for the need of a more balanced approach between competition and other legitimate public interests deserving protection, also in order to create a level playing field.

It has been opinioned that where there are no specific risks, the option not to regulate should be in principle envisaged. Where regulation appears justified by imperative general interests, only a minimal set of rules should be introduced, provided it is proportionate and non-discriminatory. Furthermore, regulation should take a soft approach, as well as be flexible to adapt to unknown developments and should not hinder innovation.\textsuperscript{58}

And then comes the decision making alternative, \textit{i.e.} a case by case \textit{ex post} assessment of different interests by the entrusted private and public enforcers involved from time to time. More specifically, due to the recent interventions of national Courts and NCAs in the field, the question has been raised of their entitlement to strike the balance among the different conflicting interests at stake.

As for public antitrust enforcement, the key mechanism to insert public interests other than competition in the decision making process appears to be the proportionality principle: prohibitions that restrict competition may be valid only if indispensable and proportionate to the public interests different from competition that justify them.

In a recent case, for example, ICA stated that the prohibition to operate through third party Internet applications imposed by taxi cooperatives to their members, in order to be harmonized with antitrust legislation, could be valid only if found to be indispensable to

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\textsuperscript{58} ICA’s President (May 2017), “Annual Report on the activity carried out in 2016”. 
guaranteeing the functioning of the cooperatives and proportionate to that objective.59

In applying its enforcement powers, Competition Authorities play their full role as decision makers and their application of the proportionality principle to a specific situation is subject to the ex post judicial review.

As it emerges from the above described ICA’s interventions, the proportionality principle appears to be even more relevant in the context of advocacy. Here the promotion of competition should always be balanced against other legitimate public policy goals. This is particularly true for the sharing economy where competition is often opposed to entry requirements that may hinder innovation.

In this context, Competition Authorities do not, however, act as decision makers but as competition advocates, illustrating a competitive problem and a possible solution to it, towards policy makers that have the final responsibility to find the appropriate solution to the conflict among different public interests.

Nevertheless, Competition Agencies, in advocating competition, can also help in finding a balance between the need to promote a competitive market structure and other primary public interests that might be at stake. Service providers can, indeed, be subject to requirements to access markets when justified by legitimate public policy objectives.

Authorities and licenses should nevertheless be non-discriminatory and proportionate to these objectives.

Eventually, as for the role of Competition Authorities, they combine a set of different powers at their disposal: i) promoting ex ante a proportionate and pro-competitive evolution of the regulatory framework, through advocacy powers; ii) assessing ex post possible anti-competitive conducts realized both by incumbents and new comers by the means of public enforcement; iii) using consumer protection tools where appropriate.

In this context, any antitrust enforcement in the sharing economy is intertwined with the issues of the digital economy and online platforms as a whole and public enforcers should concentrate on the need to preserve the ability and the incentives of firms to innovate. More specifically, to sustain this innovative process, Competition Authorities need to focus on dynamic competition, overcoming a static approach centered on the efficient allocation of a set of given resources.

Given the complexity and the different stakes involved in shaping the phenomenon of the sharing economy, international cooperation in the enforcement phase and in the analysis of its impact on markets and development of shared best practices appears to be of the utmost importance.60


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WILL A GLOBAL CONSENSUS ON THE DIGITAL SECTOR BE THE DAWN OF A NEW DAY OR IS IT JUST A BIG “DITTO”? 

FORDHAM UNIVERSITY SCHOOL OF LAW 
SEPTEMBER 11, 2019 

Panelists: 
Dr. Nicola Tosini, Associate Director 
NERA Economic Consulting 

Dr. Craig Malam, Associate Director 
NERA Economic Consulting 

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Vinson & Elkins 

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The Possible Extension of the EU Geo-Blocking Regulation Likely Impact on Creation, Promotion, and Digital Distribution of Music in the EU

Dr. Nicola Tosini
Associate Director
The EU Geo-Blocking Regulation
Its Possible Extension to Digital Copyright-Content Services

- **Art. 1 (Objective)** – Contribution to the (Digital) Single Market
- **Art. 3 (Access to the Online Interfaces)** – Prohibition to block or limit a customer's access to an online interface for reasons related to the *customer's nationality, place of residence or place of establishment*
- **Art. 4 (Access to Goods and Services)** – Prohibition to apply different conditions of access to goods or services for the same reasons
- **Art. 9 (Review) and Statement by the European Commission** – By 23 March 2020, report of the Commission on whether the scope of the Regulation should be extended to digital copyright-content services

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Tension of the free movement of goods and services with *consumer welfare* and *cultural diversity*
Digitization has increased the value of music but decreased its appropriability.

Creation, Promotion, and Digital Distribution of Music
Music Labels and Digital Music Services in the EU

Spotify Prices Across the EEA

- Music labels contribute to discovering, developing, and promoting artists
- Music labels licence to digital music services in the EU
  - Effectively, their entire catalogue
  - At a wholesale price that depends on a streaming user’s country of residence
- **Differential wholesale prices** are reflected into differential retail prices

Source: NERA analysis based on Spotify data.
Spotify Price and Launch Date

- Spotify launched its service in “old markets” first, at a price of €9.99 (or the “equivalent” price in the local currency)
- It then launched its service in “new markets”, at a price ranging between €4.99 and €6.99

Spotify Price and Income

- Prices have been set at a lower level in the new markets to accommodate their lower income

Source: NERA analysis based on Spotify and Eurostat data.
Conceptual Analysis of Geo-Blocking
Group Pricing and Uniform Pricing

• Geo-blocking makes group pricing feasible
  – Without geo-blocking, *arbitrage* leads to uniform pricing
• The uniform price is a *weighted average* of the group prices
Conceptual Analysis of Geo-Blocking
Implications for Sales and Consumer Welfare

- Consumers in the new market always lose out under uniform pricing
- When the difference in market size and price between the old and the new market is large enough, losses in the new market outweigh (possible) gains in the old market
Likely Impact of the Regulation
On the Price Distribution across EU Countries

Cumulative Streaming Revenues in the Old and the New Markets
Total streaming revenue: €2.12 billion

The new markets will carry a negligible weight in the formation of the uniform price, which will then be at/close to the level of the old markets.

Likely Impact of the Regulation
On Investment in Local Artists in the New Markets

Total Streams in Spotify’s Top 200 Charts in Poland and Share of Local Artists

Lower digital revenues and fewer digital customers in the new markets will weaken the incentive to invest in local artists.

Source: NERA analysis based on Spotify data.
The review of the Vertical Block Exemption Regulation and Vertical Guidelines in the EU

Dr. Alexandre Carbonnel
Senior Consultant/Principal
Introduction

• The European Commission is undertaking the review of the Vertical Block Exemption Regulation (VBER) and the Guidelines on Vertical Restraints

• VBER: vertical agreements satisfying certain criteria are exempt from the prohibition of anti-competitive agreements (Art. 101 of the TFEU)

• Key questions
  1. Will the VBER lapse, be prolonged or revised?
  2. If VBER is prolonged or revised, how to evaluate the potential effects of practices in light of the growth of digital markets since 2010?

The VBER review is likely to reflect the findings of the e-commerce sector enquiry (2017)
Introduction

Timeline for the review

02/2019 – 05/2019
Public consultation

First half 2020
Publication of the results of the consultation
(Staff Working document)

Impact Assessment

May 2022
Expiry of current VBER and Guidelines

• The assessment of certain practices related to online markets is likely to be discussed, including
  – Dual role of manufacturers and online platforms (Amazon case)
  – Online advertising
  – Pricing restrictions (RPM/dual pricing)
  – Geo-blocking (articulation with geo-blocking regulation)
### Practices likely to be under scrutiny in the context of the VBER review

#### Proportion of retailers with contractual restrictions, per type of restriction

<table>
<thead>
<tr>
<th>Type of Restriction</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing limitations/recommendations</td>
<td>42%</td>
</tr>
<tr>
<td>Limitation to sell on marketplaces</td>
<td>18%</td>
</tr>
<tr>
<td>Limitation to sell cross-border</td>
<td>11%</td>
</tr>
<tr>
<td>Limitations to sell on own website</td>
<td>11%</td>
</tr>
<tr>
<td>Limitation to use price comparison tools</td>
<td>9%</td>
</tr>
<tr>
<td>Limitations to advertise online</td>
<td>8%</td>
</tr>
<tr>
<td>Other limitations</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Final report on E-commerce Sector enquiry

Consumer electronics case

Guess case
Advertising restrictions: What to expect?

Recent focus of the European Commission on online bidding restrictions

Guess motivations for bidding restrictions

1. Diverting potential traffic to from authorised retailers websites to Guess website
2. Minimising online marketing costs
Advertising restrictions: What to expect?

• Considered as a restriction of competition **by object** (unnecessary to demonstrate actual or likely effect)

  “The objective of the online search advertising restriction was to reduce competitive pressure by authorised retailers on Guess’ own online retail activities and to keep down its own advertising costs”

• Agreement cannot benefit from VBER/No scope for efficiencies

• Minimization of advertising costs cannot be considered a legitimate objective
  – Is there a potential argument of pass-on of lower advertising costs to consumers?
  – 2019 study from the Dutch Competition Authority shows that this is not the case

The Commission may confirm a tough approach regarding advertising restrictions
Do algorithms exacerbate the effects of pricing restrictions in online markets?

• Commission’s view is that pricing restrictions are more harmful in online markets
• View of the Commission in the consumer electronics case

“Price monitoring and adjustment software programmes multiply the impact of price interventions.”

“Many, including the biggest online retailers, use pricing algorithms which automatically adapt retail prices to those of competitors. In this way, the pricing restrictions imposed on low pricing online retailers typically had a broader impact on overall online prices for the respective consumer electronics products.”

• Targeted pricing restrictions in online markets assessed similarly to market-wide pricing restrictions?
Do algorithms exacerbate the effects of pricing restrictions in online markets?

- Pricing algorithms presumably lead to horizontal effects
- Targeted pricing restrictions imposed to low pricing (online) retailers presumably soften (eliminate?) competition at the downstream level

VBER review to clarify the role of algorithms in the context of pricing restrictions
Trends in Enforcement Actions against Digital Platforms Using Platforms to Promote Other Services

Darren Tucker
Partner, Vinson & Elkins LLP
Trends in Digital Platform Enforcement Actions Using Platforms to Promote Other Services

• Competition agencies have brought a number of enforcement actions against technology companies for using their platform to promote their other services
  – Well-known examples include the U.S. and EC cases against Microsoft and the EC’s Android and Shopping decisions against Google, which are on appeal
  – The FTC examined these issues in the Google search bias case but found no violation

• Methods of promotion may differ, but enforcers have made a common claim that platform managers are encouraging consumers to use their other services over alternatives

• In all cases, consumers had access to alternative services on the platform at issue

• Enforcement agencies have approached these cases in two ways
  – Tying claims
  – Preferencing claims
Signs that Trends will Continue
Potential Scrutiny Facing Amazon, Apple, and Facebook

• Apple
  – The EC is investigating a complaint by Spotify that Apple uses its App Store to favor its own apps
  – Parental control app developers have complained to several enforcers about Apple allegedly placing restrictions on their apps after the release of its own service

• Facebook
  – Facebook plans to integrate Calibra, a wallet for Facebook’s new cryptocurrency, Libra, into its other products, like WhatsApp and Messenger
  – The EC has launched a preliminary investigation into Libra and is reportedly examining the integration of Calibra into WhatsApp and Messenger

• Amazon
  – Italy’s competition agency is examining whether sellers that use Amazon’s own fulfillment network get preferential treatment in Amazon’s search results
  – The EC is currently investigating whether Amazon uses its marketplace sales data to potentially gain an unfair advantage over other sellers
  – U.S. lawmakers have questioned whether Amazon’s private label products get preferential promotion
Digital Platform Product Promotion Is Ubiquitous
Current Examples

Uber promoting food ordering and delivery service through its ridesharing platform

Apple promoting native Apple apps through preloading

Microsoft’s Cortana integration into Windows 10 taskbar
Digital Platform Product Promotion Is Ubiquitous
Current Examples

Microsoft setting Bing as the default search engine for the Microsoft Edge browser

- Bing set as default search for address bar
- Additional Bing search bar on Edge’s default homepage

Search in the address bar with Bing
Change search engine
Digital Platform Product Promotion Is Ubiquitous
Current Examples

Yelp promoting its food delivery service

Selecting “Delivery” on Yelp’s homepage automatically sends user to a results page that only displays restaurants that use Yelp Delivery (the “Yelp Delivery” filter is pre-selected)
## Relevant Considerations

<table>
<thead>
<tr>
<th>Market Characteristics</th>
<th>Platform and Promotion Characteristics</th>
<th>Consumer Behavior</th>
<th>Objective Justifications and Efficiencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Degree of market power of the platform or “tying” product</td>
<td>• Strength of the promotion</td>
<td>• Consumer willingness to consider alternatives</td>
<td>• Consumer preferences for the promoted service versus alternatives</td>
</tr>
<tr>
<td>• Availability of other distribution channels for alternative services</td>
<td>• Persistence of the promotion (one time vs. ongoing)</td>
<td></td>
<td>• Efficiencies from the promotion</td>
</tr>
<tr>
<td></td>
<td>• Ability of consumers to disregard/remove the promoted service</td>
<td></td>
<td>• Benefits to platform participants, including lower costs to access the platform or a higher quality platform (Amex)</td>
</tr>
<tr>
<td></td>
<td>• Number/percentage of platform users that see the promotion</td>
<td></td>
<td>• Did the promotion start before the platform became dominant? Are non-dominant rival platforms engaging in similar conduct?</td>
</tr>
</tbody>
</table>
Factors Emphasized by Enforcers

• **Barriers to entry**
  – In the Microsoft IE and WMP cases, the EC identified two primary barriers to entry:
    - Network effects that resulted in high barriers to entry for PC operating systems
    - Difficulty of online download of alternative services compared to preinstallation
  – In the Android case, the EC also alleged two similar barriers to entry:
    - Network effects that result in high barriers to entry for licensable smart mobile operating systems
    - Effectiveness of app downloads compared to GMS preinstalls and defaults

• **Alternative ways to access the product or service**
  – “The relevant evidence reveals that other distribution means are second best. By tying WMP to Windows Microsoft can offer content providers and software developers that support the Windows Media technologies the ability to rely on the Windows monopoly to reach almost all PC users worldwide.” (EC Microsoft / WMP Decision)
  – “Google’s practice [of tying Search and Chrome] has therefore reduced the incentives of manufacturers to pre-install competing search and browser apps, as well as the incentives of users to download such apps. This reduced the ability of rivals to compete effectively with Google.” (EC Google / Android Press Release)
Objective Justifications or Efficiencies
Objective Justifications have not Succeeded in Europe

• Both European and United States antitrust enforcers consider the benefits to consumers from having access to other services

• The EC has rejected efficiency arguments in this context
  – The EC rejected Microsoft’s argument that tying WMP to Windows was efficient distribution and catered to users who wanted a default service for a seamless out-of-the-box experience
  – The EC deemed irrelevant Microsoft’s arguments that customers need not pay extra or even use WMP
  – The EC rejected Google’s argument that its Shopping results “is indispensable to the realization of efficiencies and that there are no less anti-competitive alternatives to the conduct capable of producing the same efficiencies”
  – The EC rejected Google’s argument that bundling Play, Search, and Chrome together was necessary to allow Google to monetize its investment in the free Android operating system

• The FTC accepted efficiency arguments in the Google Search bias case
  – “The totality of the evidence indicates that, in the main, Google adopted the design changes that the Commission investigated to improve the quality of its search results, and that any negative impact on actual or potential competitors was incidental to that purpose.” (Statement of the FTC Regarding Google’s Search Practices)
Killer acquisitions
Is anything special about digital?

Dr. Craig Malam
Associate Director
Killer Mergers by Digital Platforms!

• This theory of harm is that an acquisition is intended to “kill off” a potential future competitor
  – A strategy like this could make sense if, by spending money now, the potential threat of future competition is removed and higher future profits are secured

• Future competitive threats are removed if the targets are subsequently “buried”, or otherwise competitively reoriented.
An issue that is producing responses from regulators globally

- Requiring mandatory **pre-notification** of all acquisitions (Australian Competition and Consumer Commission)

- Be subject to a **“balance of probabilities” test** (UK Expert Panel, or “Furman” report)

- **Reverse the burden of proof** on dominant digital companies to prove efficiencies (Tommaso Valetti, (formerly) DGComp Chief Economist)

- Review by a **specialist Digital Authority** (Chicago/Stigler Center, or “Scott Morton” report)

- A **“heightened degree of control of acquisitions** of small start-ups by dominant platforms and/or ecosystems” (DGComp Expert Report, or “Cremer” report)
Taking a closer look at ‘the prey’

- The examples often given as killer mergers in digital are largely start-ups.
  - These are only potential competitors because they are still contingent on successful execution.

Race To Acquire Top AI Startups Heats Up

Date of acquisition (only includes 1st exits of companies)

Source: cbinsights.com
Taking a closer look at ‘the prey’

- The “potential competition” theory of harm can also be applied to established companies with proven businesses, but in adjacent or complementary segments.

Facebook acquisitions (Instagram, WhatsApp);

Amazon acquisitions (Book depository, Zappos, Diapers.com);

Google acquisitions (Waze, YouTube, or DoubleClick).
A substantial proportion of startups see acquisition as the exit strategy

What is the realistic long-term goal for your company?

Hal Varian has reported that 75% of Google acquisitions had 18 or fewer employees, 25% had 3 or less (median hires per acquisition is 6)

- He argues that most are primarily acqui-hires

Source: Silicon Valley Bank, US Startup Outlook Survey 2019
The “Acqui-hiring” phenomenon

• Acqui-hiring in the technology sector has been compared to the “farming system” for talent development in professional baseball
  – The VC’s and Angel investors are the equivalent to minor league sponsors who fund the development and proving of emerging talent
• In these cases, it is unlikely any potential competitors are being bought up in a killer merger
Part of an innovation ecosystem

- Models for sourcing innovation from largely outside the boundaries of the firm can be seen across other industries
  - One of the oldest examples is “junior” miners. These are companies that develop and prove resources without any intention to one day take on the largest miners, BHP or Vale
The economics lesson: market contestability is improved when pre-emptive buy out is possible

~ The “replacement effect.” Ken Arrow (1972)
Compared to other buyers, incumbents can have stronger incentives to discontinue the further investments required to commercialize start ups. Incumbents naturally have a greater stake in the status quo

This same incentive also propels incumbents to create their own inventions and to acquire potential entrants with inventions they can exploit

~ The possibility of buy out limits the scope for entry deterrence. Rasmusen (1988)
Add this to the investment stimulated by buy out as an exit strategy, and ultimately market contestability is better

• The Cremer report is succinct: “Generally speaking, the search for the optimal boundaries of the firm – whether by way of internal or external growth – is an important part of the competitive process” (p.111)

• Also see Shapiro (2010) “Competition and Innovation. Did Arrow Hit the Bull’s Eye?”
The concern for ‘killer mergers’ in digital would be to preserve meaningful potential competition

- The potential competitors are a primary source of dynamic competition
  - Their existence is the reason that incumbents need to “watch the throne”

- However, potential competitors that are start-ups are contingent on successful execution
  - These are not the firms likely to be having a substantial effect on dynamic competition

- That said, it is not true that killer acquisitions could not happen in digital.
  - A recent paper Cunningham et. al. 2018 finds evidence for them in pharmaceutical transactions.
Why is there a greater concern about preserving potential competition in digital?

- The Scott Morton report describes the concept of “bottle neck” power, including:
  - Network effects
  - Barriers to entry due to data, and
  - Multi-sided platform business strategies
- If competition is “winner takes all” then the returns may be high from buying out potential entrants to kill off or neutralize potential future competitors
- However note that the conditions which might give rise to “bottle neck” power are not present / consistent across all digital markets
  - Entrants can and do overcome indirect network effects, usually when costs to multi-homing are low;
  - Available data, or strategies to collect data, enable niche entrants with differentiated offers.
The challenge to assess potential competition is no easier for digital

- As for other sectors, proving that a target is a potential competitor is a steep challenge: establishing that the counterfactual is more competitive in future (ie. not the status quo)
  - How far into the future must entry be predicted?
  - Need to identify alternative buyer(s), and their ability to successfully execute/commercialize?
- Agencies have taken steps to protect future entry and competition based on concepts of competition in “innovation spaces” in non-digital sectors
  - Dow/Dupont, Bayer/Monsanto, range of others in pharma.
- Will more be learned from retrospective studies? Challenge is still to define the outcomes that could point to signs of a killer acquisition: companies that are buried and gone, or integrated and somewhat more competitive.
  - The authors of the retrospective study for the CMA (Lear) noted the pre-merger situation cannot be used as a basis to infer the counterfactual world (had the merger been blocked).
Global reviews generally consistent on at least one thing: Use the existing tools but do more

- The Furman report recommends the adoption of a “balance of harms” approach
- Scott Morton report recommends a new **Digital Authority** and specialist competition court
- The Cremer report suggests the development of a theory of harm based on potential competition within digital platforms’ “zones of interest”
- The Lear study for the CMA suggests **dawn raids** on merging parties
Suggested (tentative) conclusions - perhaps not quite a big ditto..

• It does not seem clear that the cost of increased false positives would be justified in all circumstances
  – Notable that the CMA declined to adopt the “balance of harms” recommended by Furman, stating that it was not a proportionate response to the issue
• Of course, it does not seem there are any fewer reasons to weigh potential competition theories of harm in digital markets.
• Cautious approach seems right. It could be highly detrimental if a large uptick in false positives results in less commercialization of innovation by the larger companies, which are better able to execute new ideas.
• Studies clearly show that merger control regimes provide signals that are effective at influencing the transactions undertaken. See e.g. Wollman (2019)
  – This is a perspective that may be motivating suggestions among agencies of different bases for divestiture actions
Should the focus be killer mergers..?

- We also have an expression in Australia for when regulators and government are seen as “throwing the whole toolkit at a problem”
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A GLOBAL LOOK AT THE CHANGING FACE OF COMPETITION IN THE TELECOM AND DIGITAL SECTORS

11 SEPTEMBER 2019
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Structure of today’s panel

• Quick Intro to the Economics of 5G
• Sharing is caring…or is it? Network sharing agreements in the spotlight
• Modelling Changing Facts in Merger Review and Regulatory Proceedings
• 5G and SEP: With great power comes great responsibility
• 5G will accelerate fixed-mobile convergence
5G: the next industrial Revolution or just HD Netflix on your phone?
What is 5G?

5G will save lives, propel humanity forward, and usher in the utopia that will solve the literal hot mess we’re in.

It gives you the freedom to be spontaneous and live life in real time

https://www.vodafone.co.uk/network/5g

Could 5G networks herald the arrival of a four-day work week?

5G is the next step in a cycle of innovation in the mobile sector….but is it the Endgame?

The future is already here

10G
Mobile network economics 101: The Mobile network capacity triumvirate

More sites

More spectrum

Spectral efficiency
**Spectrum 101: Different horses for different courses**

Different bands have different capacity/coverage trade-offs:

- **Low band** (<1Ghz)
- **Mid band** (1 - 6Ghz)
- **mmWave band** (>6Ghz)

And therefore the cell site deployment differs.

- **Low frequency cells** 700 MHz
- **High frequency cells** 3.4-3.8 GHz
- **Millimetre wave cells** 26 GHz

Source: Ofcom, Update on 5G spectrum in the UK, February 2017.
It promises great improvements in quality and new applications...

In technical terms it blows 4G out of the water

And will enable new applications


Source: Ofcom, Update on 5G spectrum in the UK, February 2017.

[PLACE HOLDER FOR TALKING TOOTHBRUSH]
But is going to cost a lot more than 4G

Network densification and new spectrum are the key incremental costs over 4G

**Total cost of ownership (TCO = opex + capex) could rise dramatically**

- Scenarios consider costs associated with legacy network evolution, small-cell densification, and the addition of a 5G macro layer
- Scenarios: (A) 25% data growth, (B) 35% data growth, (C) 50% data growth


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And it’s unclear how it will be monetised and financed

**ARPU has been flat/falling**


Existing users aren’t necessarily willing to pay more for 5G

Vodafone 5G turned on in 7 cities and it's the same price as 4G

https://www.techradar.com/au/news/vodafone-5g-turned-on-in-7-cities-and-its-the-same-price-as-4g

**PwC survey:** < 1/3 of US households are willing to pay more 5G
In response operators have been seeking to merge, share infrastructure, or spin off passive assets

The consolidation wave in Europe

<table>
<thead>
<tr>
<th>Year</th>
<th>Merger</th>
<th>Country</th>
<th>Number of players</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>TPG IV/Apax/ Q-Telecom</td>
<td>Germany</td>
<td>4 → 3</td>
</tr>
<tr>
<td>2006</td>
<td>T-Mobile/ Tele.ring</td>
<td>Austria</td>
<td>5 → 4</td>
</tr>
<tr>
<td>2007</td>
<td>T-Mobile/ Orange</td>
<td>Netherlands</td>
<td>4 → 3</td>
</tr>
<tr>
<td>2010</td>
<td>T-Mobile/ Orange</td>
<td>UK</td>
<td>5 → 4</td>
</tr>
<tr>
<td>2012</td>
<td>Hutchison 3G/ Orange</td>
<td>Austria</td>
<td>4 → 3</td>
</tr>
<tr>
<td>2013/14</td>
<td>Hutchison 3G/ Telefonica</td>
<td>Ireland</td>
<td>4 → 3</td>
</tr>
<tr>
<td>2013</td>
<td>Telefonica/ E-plus</td>
<td>Germany</td>
<td>4 → 3</td>
</tr>
<tr>
<td>2016</td>
<td>Hutchison 3G/ WIND</td>
<td>Italy</td>
<td>4 → 3</td>
</tr>
<tr>
<td>2018</td>
<td>T-Mobile/ Tele2</td>
<td>Netherlands</td>
<td>4 → 3</td>
</tr>
</tbody>
</table>

Live 4-to-3 mergers being opposed by regulators

Spinning out towers

Vodafone to sell off 60,000 mobile masts for €20bn


Telefónica agrees the sale of up to 40% of Telxius to KKR for 1.275 million euros

Sharing is caring…or is it?  
Network sharing agreements in the spotlight
5G Network Sharing Agreements – Latest Announcements

“The agreement allows Orange to *accelerate* its future deployment of 5G at more efficient costs”
(Laurent Paillassot, CEO Orange Spain)

“*accelerate* deployment, and … ensures that our customers will get super-fast 5G in even more places more quickly, using fewer masts
(Nick Jeffrey, CEO Vodafone UK)

There is a common view among NCAs in Europe that infrastructure sharing is likely to be a key market aspect when 5G is introduced (BEREC 2018)
Main Considerations

Who to share with?
- Closest competitor
- Smallest player in the market

What to share?
- Sites and masts (passive sharing)
- RAN or core network
  - Spectrum

Where to share?
- Urban
- Rural
- Geo-split

For how long?
- Specific period
  - Unlimited
- Until new technology

MNOs moved towards more active sharing which brings increased competition concerns
Benefits of NSA

For Operators
Cost savings *(BEREC 2018)*:
- passive sharing cost savings: [16%-35%] CAPEX, [16%-35%] OPEX;
- active sharing (excl. spectrum) cost savings: [33%-35%] CAPEX, [25%-33%] OPEX;
- active sharing (incl. spectrum) cost savings: [33%-45%] CAPEX, [30%-33%] OPEX;
- core network sharing: cost savings are limited

Rapid deployment, increased time to market
Consolidation of existing networks (2G, 3G, 4G)
Ease of getting building permits for sites

For Consumers
The net impact of NSAs on consumers results from the combination of
- Impact on prices
  - Cooperation could boost synergies and lower capital and operating costs
  - Lower costs could be passed on to consumers through lower prices
- Impact on quality
  - Cooperation could result either in
    - Lower increment in network quality (replacement effect)
    - Higher increment in network quality (efficiency effect)

Deployment in unserved/underserved areas
Fosters service differentiation between existing MNOs

Environmental Benefits
- Reduced electricity costs
- Reduced visual pollution from excessive equipment and fiber
### Competition Concerns

#### Horizontal Unilateral Effects
- Decreased differentiation
- Decreased incentive to innovate and invest
- Decreased incentive to compete

#### Horizontal Coordinative Effects
- Increased commonality of costs
- Information exchanged

#### Vertical Effects
- Infrastructure foreclosure

#### Unfair Competitive Advantage
- Exclusion of third party operators
- Excessive spectrum concentration

The EC and various NCAs regarded NSAs as favourable alternatives to mergers.
Does shared infrastructure reduce investment? 
The historical debate: Schumpeter vs Arrow
# Does shared infrastructure reduce investment?  
The current debate: what does the curve look like for mobile?

<table>
<thead>
<tr>
<th>Paper</th>
<th>Effect of concentration on investment</th>
<th>Description</th>
</tr>
</thead>
</table>
| Federico – Langus – Valletti (2017) | – | Tradeoff between price coordination (stimulating innovation) and innovation externality (depressing innovation)  
Main finding  
Overall industry innovation falls as a result of a merger. |
| Motta – Tarantino (2016) | – | Effect of mergers on investment  
Main findings  
Absent scope economies, the merger is anticompetitive: it lowers both total output and investment  
A Network Sharing Agreement is preferable to a merger |
| Genakos – Valletti - Verboven (2017) | + | Market structure and investment in mobile telecommunications  
Main findings: More concentrated markets lead to  
Higher end user prices  
Higher investment per mobile operator |
Investment increases with concentration |
| GSMA (2018) | + | Innovation and network quality increase post merger |
### Previous Experiences from the EU

#### Neutral Experience
- In Italy
- In Czech Republic
- In Netherlands
- In Ireland

#### Positive Experience
- In Denmark, active sharing of RAN works fine even though the parties involved are in fierce competition
- In France RAN sharing is efficient and resulted in better 2G/3G coverage and faster 4G rollout
- NSAs in Spain, Romania, and Poland led to reductions in retail prices
- NSA in Norway facilitates new entry

#### Negative Experience
- In Austria, NSA leads to decreased incentives to invest
- In Hungary, MNOs outside of the NSA are at a competitive disadvantage
- In Belgium, the view is that reaching an NSA entails greater costs than the advantages that these NSAs generate

### Latest News from EC:

**Statement of Objections issued to parties of T-Mobile/O2 NSA in Czech Republic**

"... In the present case, we have concerns that the network sharing agreement between the two major operators in Czechia reduces competition in the more densely populated areas of the country." (Vestager, August 2019)
Quantifying the welfare effects of innovation and quality improvements
How can we balance/quantify various (price and non-price) components of welfare?

- Examples:
  - 5G
  - Mergers with quality improvements or out-of-market efficiencies
  - Healthcare: access/cost

- Goals for today
  - Characteristics-based approach to utility/demand
  - Antitrust applications, including to 5G
Utility Representations: Roller Coaster Example

Mary
- Utility increasing with speed:
  - Utility = Speed - Price
  - Willing to pay $1 for each additional unit of speed

Bob:
- Utility decreasing with speed:
  - Utility = -Speed – Price
  - Must be compensated $1 for each additional unit of speed
From Utility to Demand

Mary: Utility = Speed – Price
Utility from roller coaster > Utility from ferris wheel

Bob: Utility = -Speed – Price
Utility from ferris wheel > Utility from roller coaster
Extensions of Amusement Park Ride Analogy

Utility = Speed - Price

• How much to charge for a new ride?
  – Can predict valuation for the new ride based on the new ride's expected speed

• Can estimate welfare benefit from increasing speed

• Extensions of the model:
  – Adding other product attributes
    - Add # drops or # inversions
  – Including consumer heterogeneity, e.g. Mary and Bob
    - Demographics
Modeling Utility, Demand, and Competition in Mobile Telecom and Beyond

Could model utility for mobile networks as a function of price, speed, and coverage:

\[
\text{Utility} = (a) \times \text{Monthly\_premium} + (b) \times \text{Network\_coverage} + (c) \times \text{Network\_speed}
\]

- Data requirements to estimate: observed past choices, product characteristics
- Asker/Bresnahan/Hatzitaskos

- Model applications
  - Simulate merger price effects, including:
    - Cost reductions
    - Quality changes/improvements
  - Estimate changes in consumer welfare from changing product characteristics
    - e.g. from rural customers gaining coverage

- Modeling innovation
  - Project the effects of innovation into observable characteristics
5G and SEP
With great power comes great responsibility … and more questions
5G Standards

• Being developed by the Third Generation Partnership Project (3GPP)

• A work-in-progress
  – Non-standalone 5G NR standards released in 2017
  – First set of standalone 5G standards released early 2019
  – Initial full 5G standards to be released in 2020

… and more
Owners of Standard Essential Patents for 5G

Number of Declared 5G Patents

- Huawei
- Nokia
- ZTE
- LG
- Samsung
- Ericsson
- Qualcomm
Implementers of 5G
The Classic Hold-Up Problem in Economics

- Relationship-specific investment
- No pricing commitment

- Pricing negotiation
- Shift in bargaining power
FRAND Commitment and Lawsuits Involving FRAND Commitments

• FRAND commitment requires holders of standard essential patents to make licenses available under **fair, reasonable, and non-discriminatory** terms

• A few examples of lawsuits involving FRAND commitments

  – *Motorola v. Microsoft* (U.S., 2013)
  – *Huawei v. InterDigital* (China, 2013)
  – *FTC v. Qualcomm* (U.S., 2019)
FRAND Commitments in the Era of 5G

• How to assess whether licensing terms are non-discriminatory when the implementers’ products are substantially different?

• Will the prospect of competing with/replacing fixed connection increase a patentee’s willingness to charge a lower royalty rate for its standard essential patents?

• Will patent hold-up remain a possibility?
Fixed/Mobile convergence
“Do you want your data to dine in or takeaway?”
Consumers make two interrelated decisions that impact how competition occurs

connection decision

- Whether to maintain a fixed and a mobile connection and which provider(s)

usage decision

- Given the subscriptions they have, which network to use at any given point in time
The old school view of fixed and mobile: complements
Recent trend: Fixed wireless may be a substitute for fixed, but the constraint only goes one way…

or

5G will accelerate the trend of fixed line *connections* substituting for fixed wireless
We are all already using “fixed wireless”…we just call it WiFi
And “fixed” wireless technology is improving too…

Source: WBA
If consumers just want “data”, does competition only go in one direction?

Usage
• Consumers can consume data “on the go” or at fixed locations and substitute between the two

Cord cutting
• MNOs need to set prices for high usage plans at a level which is attractive for fixed users to give up their connection

Supply side substitution
• In a converged world, what is the role of a fixed network?
• With large fibre footprints should fixed operators be considered near entrants?
Nobody has defined a converged market, but there is clearly some constraint, what does it mean and what might the (converged) future hold?

**M+M**
- Broad market definition/constraints outside the market = mergers less likely to raise competition problems

**F+M**
- Vertical mergers may now have horizontal aspects
- Would we think about BT/EE differently today?

**Abuse of dominance**
- Broad market definition/constraints outside the market = Harder to establish SMP
Nobody has defined a converged market, but there is clearly some constraint, what does it mean and what might the (converged) future hold?

**Fixed line regulation**
- Are fixed networks natural monopolies in a 5G world?

**Mobile termination regulation**
- OTT services already weakening the case for regulation
- 5G and convergence likely to continue this trend

**Fixed network stranding**
- If fixed networks are no longer natural monopolies, do we need to worry about stranding existing assets?
Will the fixed network really get stranded?

Monopoly access network

Monopoly backhaul network

Stranded portion of access network
Open Discussion
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