

January 2019



*“Simply the best expert experience I or the team has ever had.
The client knows our views and shares them.”*

We are extremely proud to report that 2018 was Compass Lexecon’s best year ever. In every one of our practice areas – from mergers to antitrust litigation, financial market issues to securities litigation and from mass torts to intellectual property matters and international arbitration proceedings – we were retained on the biggest and most important matters involving complex economic issues. And, at its core, the fundamental reason why we continue to succeed year in and year out is that Compass Lexecon has the best experts and staff in the business, as confirmed by the quote above from one of the lead lawyers on the AT&T/Time Warner merger trial.

Compass Lexecon remains the “800-pound gorilla” of competition economics firm worldwide both for our size and quality, according to *Global Competition Review*. In 2018, we worked on the most important mergers, such as the AT&T/Time Warner merger; the proposed T-Mobile/Sprint merger; the Agrium/PotashCorp merger, the Bayer/Monsanto merger, the CenturyLink/Level 3 Communications merger, as well as nearly 200 other deals. In antitrust litigation, we worked (or are working) on hundreds of price-fixing, monopolization and class action matters. In addition, in 2018, Compass Lexecon was named the Competition Economics Firm of the Year by *Who’s Who Legal*, an award Compass Lexecon has won every year it has been presented. *Who’s Who Legal* identified 42 Compass Lexecon experts from six different countries in its *Who’s Who of Competition Economists*. And six Compass Lexecon experts – Dennis Carlton, Neil Dryden, Miguel de la Mano, Janusz Ordovery, Jonathan Orszag, Jorge Padilla – were identified as “truly outstanding practitioners” – more experts in that category than any other firm.

Our finance, general litigation and regulatory practices enjoyed similar successes. Our President, Daniel Fischel, testified in five different trials in 2018 and our clients were victorious in *all five cases*, on subjects ranging from the existence of an MAE in a merger context, to whether challenged investments in a university pension plan were prudent, to the proper magnitude of allowed claims in a bankruptcy proceeding. Four of these trials were bench trials and the court in each heavily relied on Professor Fischel’s testimony in reaching its result. In addition, we have continued to expand our presence and involvement in mass tort and intellectual property litigation and continued our leading role as experts in the largest securities fraud, insider trading and manipulation/spoofing cases as well as in appraisal, valuation and corporate governance matters in Delaware and elsewhere.

In the international arbitration arena, our clients won significant victories in a range of cases around the world, including a \$2 billion award to ConocoPhillips in Venezuela. Based on information about the size of claims handled by expert firms, as well as the number of cases each firm is involved in, Compass Lexecon was recognized as the best international arbitration expert firm by the *Global Arbitration Review*. In addition, Compass Lexecon’s Manuel Abdala and Pablo Spiller were named as two of the most highly regarded international arbitration experts in the world.

Finally, we continued to add to our roster of best-in-industry experts and staff, including Professor John List, a world-renowned economist at the University of Chicago; Marc Weinstein, a professor of finance at the University of Southern California and an entertainment/media specialist; Boaz Moselle, one of the top energy experts in Europe, who has testified extensively in antitrust and international arbitration proceedings; Professor Mats Bergman, a former Chief Economist at the Swedish Competition Authority; Paul Reynolds, a leading competition expert in Europe; Sean Iyer, a top intellectual property expert; and Dan O'Brien, a former DOJ and FTC economist with particular expertise on partial ownership and vertical relationship issues. We have also continued to expand our presence globally, opening an office in Israel and adding significantly to our teams in Europe, Asia and the United States.

The recent highlights of our economic consulting practice are described below:

AT&T and Time Warner Merger Challenge

Compass Lexecon was retained by AT&T and Time Warner to provide economic analysis and expert testimony concerning the merger of the two companies, and to assist with the litigation brought by the U.S. Department of Justice to block the deal – United States of America v. AT&T Inc., DirecTV Group Holdings, LLC, and Time Warner Inc. This litigation was the first challenge of a vertical merger brought by the Department of Justice in decades and has been closely followed by practitioners and the press as a critical precedent-setting case. Following almost two years of regulatory proceedings and a six week trial, Judge Richard J. Leon ruled in favor of AT&T and Time Warner, permitting the merger to proceed without imposing conditions. As the Judge stated in his decision, “The parties have waged an epic battle, under extremely restricted deadlines, to litigate and try this historic vertical merger case. Each side’s evidence and theories have been subjected to cross-examination and the rigors of the Rules of Evidence and Civil Procedure. It has been a herculean task for all the parties and the Court. Each side has had its proverbial day in Court. The Court has now spoken and the defendants have won.”

Compass Lexecon experts Dennis Carlton, Michael Katz, Daniel Fischel and Rajiv Gokhale all filed reports in the litigation, and Professors Carlton and Katz were both called to testify. Compass Lexecon also provided support for Professor Peter Rossi. Professor Carlton was the primary economic witness for AT&T and Time Warner and spent a full day on the stand responding to the Government’s economics expert. Professor Katz provided further economic testimony on the role of program access rules and arbitration commitments that the companies had made in addressing any potential theories of harm. Professor Rossi testified as to problems with survey instruments and data relied upon by Government witnesses. Judge Leon’s Opinion cites all three testifying experts extensively, with Professor Carlton’s testimony being cited more than 50 times. Judge Leon cited in particular to Professor Carlton’s conclusion that “There’s absolutely no statistical basis to support the Government’s claim that vertical integration in this industry leads to higher content prices,” and Judge Leon found that the Government did not provide “an adequate basis to decline to credit Professor Carlton’s econometric analysis. And that analysis, according to Professor Carlton, definitively shows that prior instances of vertical integration in the video programming and distribution industry have had no statistically significant effect on content prices.” Judge Leon also found that the Government’s model was “not sufficiently grounded in the evidence,” and cited the economic testimony of Professors

Carlton, Katz and Rossi which exposed problems that are “fatal to the model’s probative value in predicting the asserted harm associated with the Government’s increased-leverage theory.”

Although not called to testify at trial, Compass Lexecon President Daniel Fischel’s expert report covered corporate governance issues, and Rajiv Gokhale’s expert report covered efficiencies and consumer benefits that would result from the merger. Compass Lexecon’s Mark Israel was the primary economic expert dealing with the Department of Justice during the almost two year interaction with the government leading up to the trial. Compass Lexecon also provided assistance with discovery during the regulatory process and litigation.

These experts were supported by a large team of people at Compass Lexecon. The overall chief of staff was Executive Vice President Allan Shampine. Other Executive Vice Presidents and Compass Lexecon economic experts involved included Steven Berry, Mary Coleman, Philip Haile, Todd Kendall, Jessica Mandel, Loren Poulsen, Marius Schwartz, Hal Sider, Thomas Stemwedel, Theresa Sullivan, Daniel Vincent and David Weiskopf. Other team members included Dzmitry Asinski, Daniel Cherette, Kelly Dickson, Georgi Giozov, Otto Hansen, Evan Herrstadt, Margaret Hlebowitsh, Nauman Ilias, Alice Kaminski, Constance Kelly, John Kelly, Andrew Linde, Evan McKay, Federico Mini, Avisheh Mohsenin, Robert Oandasan, Joel Papke, Michael Sabor, Saikun Shi, Judy Smith, Ben Spulber, Ka Hei Tse, Duo Xu and Allan Zhang.

In addition to in-house counsel for AT&T and Time Warner, including David McAtee, Paul Cappuccio, David Lawson, Jim Meza, David Smutny and many others, Compass Lexecon worked closely with counsel from the seven outside law firms representing AT&T and Time Warner, including Daniel Petrocelli, M. Randall Oppenheimer, Katrina Robson and Sergei Zaslavsky from O’Melveny & Myers LLP; Wm. Randolph Smith, Christopher Cole and Jeane Thomas from Crowell & Moring LLP; Michael Kellogg, Evan Leo, Kevin Miller and Aaron Panner from Kellogg, Hansen, Todd, Figel & Frederick PLLC; Richard Rosen, Debbie Feinstein, Maureen Jeffreys and Jonathan Gleklen from Arnold & Porter Kaye Scholer LLP; Robert Walters, Mike Raiff, Joshua Lipton, Sean Royall and Eric Stock from Gibson, Dunn & Crutcher LLP; C. Frederick Beckner III, Peter Keisler and Jonathan Nuechterlein from Sidley Austin LLP; and Peter Barbur, Kevin Orsini, Christine Varney and Allison Davido from Cravath, Swaine & Moore LLP.

Akorn v. Fresenius Delaware MAE Case

In October 2018, Vice Chancellor J. Travis Laster of the Delaware Court of Chancery, relying on Compass Lexecon President Daniel Fischel’s expert testimony on behalf of Compass Lexecon’s client Fresenius, found that Akorn, Inc., a company Fresenius had agreed to acquire more than a year before, had suffered a material adverse effect (MAE), the first such ruling ever by the Delaware Court. The Court also ruled that Akorn had breached its representations regarding its compliance with regulatory requirements in a manner that would reasonably be expected to result in a MAE and Fresenius validly terminated because Akorn materially breached its obligation to continue operating in the ordinary course of business between signing and closing. As a result the Court held that Fresenius was not legally obligated to close the previously agreed upon transaction with Akorn.

The case relates to Fresenius’ announcement on April 24, 2017, that it had agreed to acquire Akorn, Inc. for \$34 per share, or \$4.75 billion. Subsequent to the announcement, Akorn’s financial and operating performance declined and in February 2018, Fresenius announced that it

was conducting an investigation of possible breaches of its merger agreement. Almost one year after the acquisition was announced, on April 22, 2018, Fresenius terminated the merger agreement relying on Akorn's failure to fulfill a number of closing conditions including issues relating to Akorn's compliance with FDA data integrity requirements, among other things. At the time, Akorn responded publicly claiming that nothing identified in the investigation would be expected to have a material adverse effect.

Akorn filed a lawsuit in Delaware Chancery Court seeking specific performance compelling Fresenius to close based on its allegation that Fresenius's attempt to terminate the merger agreement was invalid. Fresenius filed an answer and counterclaim responding that Akorn's misrepresentations regarding its regulatory compliance would reasonably be expected to result in a material adverse effect, that Akorn failed to operate in the ordinary course of business in all material respects since the merger agreement was signed, and pointing to the section in the merger agreement that conditioned Fresenius's obligation to close the acquisition on Akorn not having suffered a MAE.

Compass Lexecon and its President Professor Daniel Fischel were retained by Fresenius to respond to Akorn's experts who purported to show that Akorn had not suffered a MAE and to opine on whether the economic evidence supported the existence of a MAE. Professor Fischel filed two expert reports and testified at trial, opining that Plaintiff's experts' claims that the company had not suffered a MAE were flawed and incorrect and pointing to Akorn's disproportionate underperformance relative to historical experience, company guidance, analysts' expectations, and its industry peers as strong evidence that the company had indeed suffered a MAE. Professor Fischel further opined that the significant underperformance was not a "hiccup" and that, in fact, the disproportionate underperformance was expected to continue through at least 2020 and thus was durationally significant.

Compass Lexecon Executive Vice President Rajiv Gokhale also submitted an expert report quantifying the effects of regulatory delay attributable to data integrity problems. Professor Ernst Berndt of MIT, supported by a team at Compass Lexecon, submitted two expert reports analyzing the dynamics of generic drug competition and describing the implications of these dynamics for quantifying the effects of regulatory delay.

Vice Chancellor Laster held a five-day trial and in October 2018, in a 246-page opinion, rejected Akorn's claims in their entirety and ruled in favor of Compass Lexecon client Fresenius on all claims. The trial was closely watched by hedge funds, analysts, and the press as the Delaware Court had never ruled in favor of a company seeking not to close a transaction based on a MAE. The Court agreed with Professor Fischel's conclusions that Akorn's financial performance had declined disproportionately since the time of the merger agreement and that such underperformance was expected to continue. In particular, Vice Chancellor Laster stated that "[a]t trial, Professor Daniel Fischel testified credibly and persuasively that Akorn's financial performance has declined materially since the signing of the Merger Agreement and that the underlying causes of the decline were durationally significant."

In December 2018, the Delaware Supreme Court heard arguments relating to Akorn's appeal. Within days, the Court issued an order upholding the Chancery Court's ruling including the historic determination that Akorn had suffered a material adverse effect.

Professor Fischel was assisted by a team in Compass Lexecon's Chicago office that was led by Jessica Mandel and Tim McAnally, and included Avisheh Mohsenin, Andrew Lin and

Heather Freilich-Farby. Mr. Gokhale was supported by a team in our New York office led by Adel Turki that included Michael Kwak, Christopher Fiore and Monica Xie. Professor Berndt was supported by a team in our Oakland office led by Bret Dickey, Mark Rodini and Tully Lillis.

Compass Lexecon worked closely with counsel from Paul, Weiss, Rifkind, Wharton & Garrison LLP including Lewis Clayton, Moses Silverman, Andrew Gordon, Jonathan Hurwitz, Daniel Mason, Paul Paterson, Altin Sila and Abel McDonnell who successfully represented Fresenius.

Class Certification Proceedings in LIBOR-Based Financial Instruments Antitrust Litigation Cases

In the sprawling LIBOR-Based Financial Instruments Antitrust Litigation matters, Plaintiffs sought certification of three separate classes: (i) traders of Eurodollar futures and options on futures traded at the Chicago Mercantile Exchange (the Exchange-Based Plaintiff Action); (ii) financial institutions that made loans paying interest based on LIBOR (the Lender Plaintiff Action); and (iii) purchasers of over-the-counter (OTC) interest rate swaps and floating-rate bonds that paid LIBOR-linked interest (the OTC Plaintiff Action). Compass Lexecon Senior Affiliate Dr. Christopher Culp, and Senior Consultants Professor Janusz Ordover and Professor Robert Willig provided extensive testimony on behalf of the LIBOR panel banks. Judge Naomi Reice Buchwald of the U.S. District Court for the Southern District of New York found their testimony persuasive and cited them extensively in her opinion. Judge Buchwald denied class certification entirely for the Exchange-Based and Lender Plaintiff Actions and denied class certification in part for the OTC Plaintiff Action. Judge Buchwald denied Daubert motions filed by Plaintiffs challenging certain aspects of the testimony of Professor Willig and Dr. Culp, ruling that their testimony was reliable and admissible, while granting Defendants' Daubert motions to exclude many of Plaintiffs' experts' opinions.

Dr. Culp offered testimony in the Exchange-Based Plaintiff Action that there was no causal relationship between alleged trader-based manipulation of LIBOR and Eurodollar futures and options on futures prices based on a reliable, formulaic method for all putative class-members. Judge Buchwald found "compelling" Dr. Culp's testimony that Plaintiffs' experts did not establish the existence of a causal relationship between alleged trader-based manipulation of LIBOR and Eurodollar futures and options on futures prices and that there is no reliable, formulaic method to determine any such causal relationship for all putative class-members. She also found that Plaintiffs' motion to exclude Dr. Culp's testimony was "premised on a mischaracterization of his reports" and that none of their critiques "call into question the reliability of Dr. Culp's opinions."

Professor Ordover offered testimony in the Exchange-Based, Lender and OTC Actions that the determination of injury and damages due to the alleged persistent suppression could be made on a class-wide basis, but would require individualized inquiries. In the Exchange-Based action, Judge Buchwald cited Professor Ordover's opinions in denying class certification, ruling that Plaintiffs' causation theory "is nonsensical; this finding is confirmed by Dr. Ordover's analysis showing a lack of convergence between spot LIBOR and expected LIBOR at settlement implied by [Eurodollar futures] prices...despite increasing overlap between the time periods." In the Lender Action, Professor Ordover testified that class-wide injury could not be presumed, since many terms of highly negotiated loans would be expected to be different in a world absent the alleged LIBOR suppression. Judge Buchwald cited this opinion while excluding Plaintiff's

expert's opinions which did not "meaningfully rebut Dr. Ordover's testimony." In the OTC Plaintiff Action, Judge Buchwald found Professor Ordover's testimony "more compelling" than Plaintiffs' expert regarding the individualized nature of damage calculations.

In the Exchange-Based, Lender and OTC Actions Professor Willig addressed Plaintiffs' claims that LIBOR was persistently suppressed. In each case, Professor Willig compared the banks' LIBOR submissions with their actual borrowing costs (which Professor Willig opined were "the most informative data for evaluating the accuracy of [panel banks'] LIBOR submissions"), demonstrating that common evidence cannot be used to establish that submissions were suppressed class-wide compared with borrowing costs, and showing that the determination of any suppression would require numerous individualized inquiries. Judge Buchwald dismissed Plaintiffs' challenges to Professor Willig's testimony, finding that actual borrowing cost transactions are "properly considered" in any assessment of Plaintiffs' claims and that the "argument to the contrary...is simply unavailing." She ruled that Plaintiffs' "attempted distinction between bid-initiated transactions and offer-initiated transactions is illusory and does not render Dr. Willig's analysis unreliable; its attempt to paint Dr. Willig's transaction analysis as a calculation of but-for LIBOR is a mischaracterization and fares even worse."

Dr. Culp was supported by a Chicago-based Compass Lexecon team that included David Gross, Andria van der Merwe, Andrea Neves, Jonathan Williams, Laura Yergesheva and Bettina Staerkle. Professor Ordover was supported by a Chicago-based Compass Lexecon team that included Thomas Stemwedel, David Ross, Dzmityr Asinski, Andria van der Merwe and Erika Morris. Professor Willig was supported by a Compass Lexecon team that included David Gross, Joseph Goodman, Ron Laschever, Laura Yergesheva, Peter Marlantes and Binbin Deng from our Chicago office and Jith Jayaratne and Maya Meidan from our Oakland office.

Dr. Culp was retained by David Gelfand, Robert Hora, Mark Villaverde and Andrew Lichtenberg of Milbank, Tweed, Hadley & McCloy LLP. Professor Ordover and Professor Willig were retained by counsel for a joint defense group and worked closely with Elai Katz of Cahill Gordon & Reindel LLP; Andrew Lazerow and Thomas Isaacson of Covington & Burling LLP; Arthur Burke, Paul Mishkin, Adam Mehes and Peter Davis of Davis Polk & Wardwell LLP; Peter Sullivan, Eric Stock and Jefferson Bell of Gibson, Dunn & Crutcher LLP; Brian Poronsky of Katten Muchin Rosenman LLP; Moses Silverman and Hallie Goldblatt of Paul, Weiss, Rifkind, Wharton & Garrison LLP; and Paul Gluckow, Abram Ellis and Zander Li of Simpson Thacher & Bartlett LLP.

Bayer/Monsanto Merger

Compass Lexecon provided economic advice and analysis in the \$66 billion global acquisition of Monsanto by Bayer. Both Bayer and Monsanto are active in the supply of seeds and seed treatments, including those designed to work with patented seed traits. Given the global nature of the transaction, the coordination of Compass Lexecon teams in North America, Europe and China provided value to the clients in generating and presenting consistent economic analyses across jurisdictions, and leveraging knowledge across teams to efficiently respond to requests by the various competition authorities.

Specifically, the merger required market share analysis across various sectors and jurisdictions, as well as detailed economic analysis of vertical foreclosure issues, potential competition, bundling, innovation incentives and patents. Compass Lexecon provided support

for submissions in several jurisdictions, including those to competition authorities in the European Union, the United States, Canada, China, Russia and Turkey. For example, leveraging transaction knowledge and economic analysis done in the North American and European investigations, Elizabeth Wang, Fredrick Flyer and Colleen Loughlin submitted an economic report to the Chinese competition agency, MOFCOM, addressing issues related to bundling, innovation, and digital farming.

In March 2018, MOFCOM and the European Commission approved the transaction, subject to conditions, and in May 2018 the U.S. approved the transaction, subject to agreed divestitures.

A team in the U.S. led by Janusz Ordovery, including Rick Flyer, Colleen Loughlin, Daniel Stone and Laura Yergesheva worked with legal teams in both the U.S. and Canada. In the U.S., these included Stephen Holley, Bradley Smith and Dustin Guzior of Sullivan & Cromwell LLP and in Canada, Susan Hutton, Jeff Brown, Paul Collins, Michael Rosenstock and Ashley Piotrowski of Stikeman Elliott LLP. A large London-based European team led by Lorenzo Coppi worked with Juan Rodriguez and Axel Beckmerhagen at Sullivan & Cromwell LLP. Elizabeth Wang led a team including Rick Flyer, Colleen Loughlin, Sophie Yang and Mary Li on submissions to MOFCOM, working closely with John Ren from T&D Associates and Chen Ma from Han Kun Law offices.

ConocoPhillips Commercial Arbitration Dispute With PDVSA

Compass Lexecon expert Dr. Manuel Abdala was retained by Phillips Petroleum Company Venezuela Limited and ConocoPhillips Petrozuata B.V. (“Claimants”), two large-scale producers of heavy crude oil and related products, as quantum expert in an ICC arbitration against Petróleos de Venezuela, S.A., Corpoguanipa, S.A., and PDVSA Petróleo S.A. (Respondents or PDVSA). The dispute arose from claims related to certain discriminatory actions by Venezuela for which PDVSA, as a joint partner to ConocoPhillips, had provided partial protection and guarantees. An ICC Tribunal declared that the increase in income taxes and the 2007 expropriation were discriminatory actions under the association agreements between the parties, and found PDVSA liable for \$2 billion as of May 2016.

The Tribunal used Dr. Abdala’s valuation model to compute compensation, which required economic interpretation on the contractual provisions related to the compensation clauses of the association agreements. The Tribunal sided with Dr. Abdala’s main recommendations on the discount rate, in particular, rejecting the three main propositions advanced by opposing experts: First, it ruled that the discount rate should not include an illiquidity discount, since the assets were not in distress and Claimants were not under compulsion to divest. Second, based on Dr. Abdala’s evidence, it ruled that the status of Venezuela’s sovereign debt (given its near-default situation) had no place in the calculation of a country risk premium. Finally, the Tribunal shared Dr. Abdala’s opinion on the fact that neither historic average returns in the oil industry nor the expected IRR could be used as discount rates, which instead had to be based on the cost of capital. The Tribunal ended up rejecting PDVSA’s experts proposed 27.7% discount rate and adopted a flat rate equivalent to an 18% cost of equity, close to Dr. Abdala’s recommendation of 15.2%.

Pablo López Zadicoff led the team supporting Dr. Abdala and was assisted by Carla Chavich, Mark Sheiness, Nicholas Dayton and Andrés Barrera. Compass Lexecon worked with

Brian King and Elliot Friedman of Freshfields Bruckhaus Deringer LLP and Constantine Partasides QC, Jan Paulsson, and Luke Sobota of Three Crowns LLP.

New York University ERISA Class Action

Plaintiffs in this litigation claimed that New York University paid excessive record-keeping fees and made imprudent investments in its employee retirement plans, thereby failing to fulfill certain fiduciary obligations under ERISA and resulting in losses of more than \$358 million. After a multi-week bench trial, Judge Katherine B. Forrest rejected Plaintiffs' claims in their entirety and ruled in favor of Compass Lexecon client New York University on all claims in *Sacerdote et al. v. New York University*. The trial was closely watched as this was the first of many similar ERISA class actions filed recently against elite university-employers to proceed to trial.

Compass Lexecon's President Professor Daniel Fischel was retained by New York University to provide expert testimony concerning the performance of the CREF Stock Account and TIAA Real Estate Account from an economic perspective in response to Plaintiffs' claims concerning the prudence of those investment options. The Court agreed with Professor Fischel's conclusions that the performance of the CREF Stock Account and TIAA Real Estate Account was consistent with each investment option's risk profile and costs of providing liquidity and other services. In particular, the Court stated that it "credits and relies" on Professor Fischel's "thoughtful analysis regarding the objective performance" of the New York University investments. The Court also discounted the testimony of Plaintiffs' expert concerning the performance of the CREF Stock Account and TIAA Real Estate Account based on Professor Fischel's testimony. Moreover, Judge Forrest described Professor Fischel as "knowledgeable, reasonable, and consistent" and "highly credible" and noted his "significant expertise in various relevant areas."

Dr. Adel Turki was retained by New York University to provide expert rebuttal testimony concerning the alleged damages from alleged excessive recordkeeping fees calculated by Plaintiffs' expert. The Court agreed with Dr. Turki's conclusion that Plaintiffs' expert's alleged damages calculation was obviously flawed and based on improper economic analysis and agreed with all of the corrections proposed by Dr. Turki. The Court also relied on Dr. Turki's analysis in concluding that Plaintiffs failed to establish any damages from alleged excessive recordkeeping fees. Moreover, Judge Forrest described Dr. Turki as "highly credible" and noted his "extensive experience as a damages rebuttal expert in ERISA matters."

Professor Fischel was assisted by a team in Compass Lexecon's Chicago office that included David Ross, Constance Kelly and Andrew Linde. Dr. Turki was assisted by a team in Compass Lexecon's New York office that included Michael Kwak and Nicholas Fasano. Compass Lexecon worked closely with counsel from DLA Piper including Mark Muedeking, Ian Taylor, Jennifer Squillario, Harry Rudo and Evan Parness who successfully represented New York University.

Agrium and Potash Corporation Merger

Compass Lexecon assisted Agrium and Potash Corporation of Saskatchewan in obtaining regulatory approval for their \$36 billion merger of equals, which creates the largest crop nutrient company in the world. The merger involved multiple crop fertilizer products, such as nitrogen,

phosphate and potash fertilizers, in multiple jurisdictions, including the United States, Canada, China and India. Between the two companies, they produce roughly half of all potash in North America. Compass Lexecon showed through detailed econometric and other analyses that the proposed merger would not harm competition to supply potash in the United States because of global competition. The Federal Trade Commission (FTC) cleared the merger without requiring any potash divestitures. As part of the FTC process, the parties agreed to divest two production facilities, one producing SPA (or superphosphoric acid) and one producing nitric acid. The merger was also cleared with minimal divestiture requirements in China and India.

Compass Lexecon worked with Agrium's counsel, Latham & Watkins LLP and Blake, Cassels & Graydon LLP and PotashCorp's counsel, Jones Day and Stikeman Elliott LLP, to present our economic analyses to competition authorities around the world. The Compass Lexecon team included Jonathan Orszag, Jay Ezrielev, Elizabeth Xiao-Ru Wang, Todd Kendall, Maya Meidan, Bich Ly, Genaro Marquez, Mihir Narain, Rohini Sadarangani, Christopher Rybak, Prerana Nanda, Gloriana Alvarez and Erika Morris, representing Compass Lexecon's offices in Washington, DC, Oakland, Los Angeles, Chicago and Boston.

Compass Lexecon worked with Michael Egge, Amanda Reeves, Farrell Malone, Lindsey Champlin, Noel Miller, Brady Cummins, David Johnson and Yanyan Yang of Latham & Watkins LLP; Phillip Proger, Michael Sennett, Michael Gleason and Erin Shencopp of Jones Day; Kevin MacDonald, David Dueck and Randall Hofley of Blake, Cassels & Graydon LLP; and Lawson Hunter and Susan Hutton of Stikeman Elliott LLP.

Sprint Corporation Breach of Fiduciary Duty and Appraisal Action

This case involved a combined breach of fiduciary duty claim and appraisal action resulting from Sprint Corporation's \$3.6 billion acquisition of Clearwire Corporation. Clearwire shareholders who voted in favor of the acquisition received \$5.00 per share. A large shareholder claimed the acquisition resulted from breaches of fiduciary duty by Sprint, aided and abetted by SoftBank, a Japanese telecommunications company that invested \$21.6 billion in Sprint the day after the Sprint-Clearwire acquisition closed. The shareholder also filed an appraisal action and claimed that the merger consideration was inadequate. The breaches of fiduciary duty claim and appraisal action were combined, and a trial was held in the Delaware Court of Chancery before Vice Chancellor J. Travis Laster.

At trial, Plaintiffs and their experts claimed that the fair value of Clearwire was actually \$16.08 per share. Compass Lexecon Senior Consultant Professor Bradford Cornell, by contrast, testified that the standalone fair value of Clearwire was \$2.13 per share. Professor Cornell's conclusion was based on a discounted cash flow valuation.

In his opinion, Vice Chancellor Laster ruled that the Sprint-Clearwire merger was entirely fair, found in Sprint's favor on the claim for breach of fiduciary duty, and found in SoftBank's favor on the claim for aiding and abetting. Vice Chancellor Laster also agreed with Professor Cornell's and Defendant's conclusion that the standalone fair value of Clearwire was \$2.13 per share and wrote, "[t]he court adopts Cornell's DCF valuation in full." As a result, Vice Chancellor Laster's conclusion resulted in a determination of fair value that was more than 50 percent below the merger consideration as a result of the considerable synergies generated by the transaction.

In April 2018, the Delaware Supreme Court affirmed Vice Chancellor Laster's ruling, in a one sentence opinion.

Professor Cornell was supported by a team at Compass Lexecon that included Kevin Dages, Jennifer Milliron, John Haut and Tim McAnally. We worked with Robert Saunders, Jennifer Voss, Ronald Brown, III and Arthur Bookout of Skadden, Arps, Slate, Meagher & Flom LLP and Erik Olson, James Bennett, James Hough and James Beha II of Morrison & Foerster LLP.

The Bank of New York Mellon Trustee Litigation

During the years 2005-2008, the Western and Southern Life Insurance Company and its affiliates (Western & Southern) purchased residential mortgage backed securities with a face value of \$538 million. The Bank of New York Mellon (BNYM) was the Trustee for the Trusts which issued these securities. After the securities declined in value, Western & Southern sued the Trustee, alleging that BNYM breached its contractual, fiduciary and statutory duties to the Trusts and that these failures caused Western & Southern to suffer over \$100 million of damages. Among other things, Plaintiffs alleged the Trustee failed to exercise due care in negotiating a settlement of the Trusts' claims against Countrywide, the entity from whom the Trusts purchased mortgages, and Countrywide's parent, Bank of America.

Mayer Brown LLP, counsel for BNYM, retained Compass Lexecon President Professor Daniel Fischel to evaluate the settlement. Professor Fischel filed a report, opining that the settlement with Countrywide and Bank of America was reasonable and adequate, and also testified at deposition. Subsequent to Professor Fischel's deposition, Plaintiffs decided not to pursue the claim challenging the settlement. After a multi-month trial in the first half of 2017, Judge Steven E. Martin of the Court of Common Pleas in Cincinnati, Ohio ruled in favor of the BNYM on all issues, stating that he found "no merit in any of the claims of the Plaintiffs." The result was a complete victory for BNYM.

The Bank of New York Mellon was successfully represented at trial by Matthew Ingber, Michael Martinez, Christopher Houpt, Allison Zolot and Silvia Babikian of Mayer Brown LLP. The Compass Lexecon consulting team was headed by Jerry Lumer and included Kevin Hartt, Anne Marie Yale, Erika Morris and Donnie Hong.

King Drug Company of Florence, Inc. v. Cephalon, Inc., et al.

In August 2017, the District Court in this case denied Plaintiffs' motion to certify a class of direct purchasers of Cephalon's branded drug Provigil. Direct purchaser Plaintiffs alleged that Cephalon delayed market entry of generic versions of Provigil through illegal "reverse payment" settlement agreements with generic manufacturers. Consistent with the expert analysis developed by Compass Lexecon which concluded that (a) only about 20 entities met the class definition, (b) the three national wholesalers accounted for over 95% of the value of Plaintiffs' damages claims, and (c) other class members also had substantial claims under Plaintiffs' damages methodology, the District Court determined that the numerosity requirement was not satisfied and certification of the class was not appropriate. The decision followed an earlier opinion and remand by the Third Circuit that identified these and other relevant factors that need to be considered when evaluating numerosity.

Compass Lexecon Senior Consultant Professor Janusz Ordover was the expert for the Defendants. The Compass Lexecon team supporting Professor Ordover was led by Bret Dickey in our Oakland office and included Todd Bettisworth, Kun Huang and Tully Lillis. We worked closely with counsel representing Defendants including J. Douglas Baldrige, Danielle Foley and Lisa Jose Fales of Venable LLP, representing Ranbaxy, James Burling, Peter Spaeth and Mark Ford of Wilmer Cutler Pickering Hale and Dorr LLP, representing Cephalon, Karen Walker and Greg Skidmore of Kirkland & Ellis LLP, representing Barr/Teva, C. Fairley Spillman of Akin Gump Strauss Hauer & Feld LLP, representing Mylan, and Joe Wolfson of Stevens & Lee, representing Teva.

Huawei Patent Infringement Suit in Chinese Court

In January 2018, the Intermediate People's Court in Shenzhen, China entered a ruling in favor of Compass Lexecon client Huawei Technologies Co., Ltd., a leading smartphone manufacturer, in a patent infringement suit against Samsung that involved cross-licensing of wireless telecommunication patents on Fair, Reasonable and Non-Discriminatory (FRAND) terms. Compass Lexecon expert Dr. Elizabeth Wang submitted reports addressing economic issues and testified on behalf of Huawei at trial. The Court agreed with Dr. Wang on a range of key economic issues, including how to evaluate the relative strength of the parties' SEP patent portfolios and whether a particular past Huawei license should be considered as a comparable license.

The Court found that Samsung infringed Huawei's patent rights on two patents essential to the LTE standard. It also found that Huawei's licensing offers were consistent with FRAND and that Samsung "maliciously delayed negotiations" that constituted a breach of an obligation to license its SEPs on FRAND terms. The Court granted Huawei an injunction, ordering Samsung to immediately stop the manufacturing and sales of its infringing products in China.

Dr. Wang worked with Senior Consultant Professor Timothy Simcoe from Boston University and a team led by Kun Huang, Jason Wu, Elisabeth Browne and Allan Champine.

Arbitration Relating to 2008 Expropriation of Two Argentine Airlines

Compass Lexecon experts Dr. Manuel Abdala and Professor Pablo Spiller were retained by Teinver S.A., Transportes de Cercanías S.A., and Autobuses Urbanos del Sur S.A. (Claimants) as regulatory and quantum experts in an ICSID arbitration against the Argentine Republic. The dispute centered on two principal claims: the takeover and expropriation by Argentina of Claimant's airlines (Aerolíneas Argentinas and Austral) in 2008 and the prior price regulation (airfare squeeze) that prevented Claimants' airlines from proper cost recovery from 2002 to 2008.

On the expropriation claim, the Tribunal awarded Claimants expropriation damages in excess of \$320 million as of December 30, 2008, plus interest and costs, based on Claimant's 97.2% stake of a contemporaneous valuation made by Credit Suisse, confirmed with Dr. Abdala and Professor Spiller's valuation of the two airlines at \$357 million, as of January 2008. The Tribunal also acknowledged that between January and December 2008 airline market conditions worsened in Argentina, explaining the difference between Compass Lexecon and Credit Suisse's valuation estimates.

On the airfare squeeze claim, the Tribunal sided with Dr. Abdala and Professor Spiller's testimony on key contested economic issues; mainly that the domestic market was subject to restrictive maximum airfare caps and bands which did not allow for proper cost recovery or earning a reasonable return during 2002-2008. While the Tribunal concluded that the airlines' historical losses prior to the expropriation were mainly attributable to the airfare squeeze, it determined that such regulatory policy did not constitute a Treaty breach.

Dr. Abdala and Professor Spiller were supported by Gustavo De Marco and Carla Chavich. Compass Lexecon worked with a legal team led by R. Doak Bishop, Roberto Aguirre Luzi, Craig Miles, Silvia Marchili and Isabel Fernández de la Cuesta of King & Spalding LLP.

Lehman Brothers Holdings Claims Estimation Proceeding

After Lehman Brothers Holdings Inc. (Lehman), filed for bankruptcy, Trustees for 244 RMBS Trusts filed claims arising out of alleged breaches of representations and warranties on mortgages conveyed to the Trusts. In 2012, the parties agreed to a \$5 billion reserve for the RMBS Trusts' claims. Lehman and the Trustees agreed to resolve the dispute through a claims estimation proceeding under which the RMBS Trusts' allowed claim in the bankruptcy proceeding would be set after a trial presided over by Judge Shelley C. Chapman of United States Bankruptcy Court. Lehman agreed to propose that the allowed claim be set at approximately \$2.4 billion. The Trustees argued in multiple expert reports and court filings that the allowed claim should be set at a much higher value, approximately \$11.6 billion.

Counsel for Lehman retained Compass Lexecon President Professor Daniel Fischel and Professor Bradford Cornell. Both filed expert reports and testified at trial. At the conclusion of the trial, Judge Chapman ruled for Lehman agreeing that the allowed claim should be \$2.4 billion and rejecting the Trustees' proposed allowed claim.

At trial, Professor Fischel identified a set of comparable settlements and opined that, taking into account differences between the comparable settlements and the case here, Lehman's proposed allowed claim of \$2.4 billion was at the higher end of the range of recent settlements of comparable claims, while the Trustees' proposed allowed claim was far outside that range. Professor Fischel also described the support of large investors in the RMBS Trusts (the Institutional Investors) for an earlier settlement offer from Lehman of \$2.44 billion and opined that this supported estimating the allowed claim at \$2.4 billion.

Professor Cornell worked with Lehman and its counsel to design scenarios that showed how often the Trustees would have to succeed on their loan level claims to achieve an aggregate allowed claim of \$2.4 billion. The scenarios analyzed by Professor Cornell made different assumptions about whether the Trustees would prevail on contested issues that affected a large number of loans.

In rejecting the Trustees' proposed allowed claim, Judge Chapman found that she had not been presented with any methodology which would enable her to estimate the allowed claim on a loan by loan basis and therefore had to look to comparable settlements and the actions of the Institutional Investors to determine the allowed claim. As a result, Judge Chapman relied upon and extensively discussed Professor Fischel's testimony. She found that Professor Fischel demonstrated that Lehman's proposed allowed claim of \$2.4 billion was well within the range of comparable settlements and the Trustees proposed allowed claim was far outside that range. She also agreed with Professor Fischel that the Institutional Investors' willingness to settle the RMBS

Trusts' claims for \$2.44 billion was entitled to substantial weight due to their large holdings in the Trusts, their sophistication and their experience in other RMBS settlements. Judge Chapman rejected arguments by the Trustees and their experts that the settlements identified by Professor Fischel were not comparable and that the Institutional Investors' interests were not aligned with other certificateholders in the RMBS Trusts.

Lehman Brothers was successfully represented by Todd Cosenza, Paul Shalhoub, Joseph Davis and Benjamin McCallen of Willkie Farr & Gallagher LLP, William Olshan and Matthew Cantor of Lehman Brothers Holdings and Michael Rollin and Maritza Dominguez Braswell of Rollin Braswell Fisher LLC. Professors Fischel and Cornell were supported by a team at Compass Lexecon led by Jerry Lumer that included Neal Lenhoff, Elizabeth Wall, Kevin Hartt, Jonathan Williams, Ron Laschever, Donald Hong and Erika Morris in Compass Lexecon's Chicago office.

Class Action Against Trinity Industries

Trinity Industries, Inc., a manufacturer of highway guardrail safety products, was sued by two Illinois counties that purchased their products, claiming that Trinity enriched itself through certain design changes to the products that made them unsafe, and failed to disclose those changes to the Federal Highway Administration, to the Illinois Department of Transportation, and to individual buyers. Plaintiffs alleged multiyear classes of all 102 Illinois counties and 2,731 Illinois cities and towns. Plaintiffs submitted an expert report proposing class-wide methodologies to quantify the alleged damages.

Compass Lexecon was retained by counsel for Trinity to evaluate these methodologies and their appropriateness for class certification purposes. Compass Lexecon Senior Managing Director Mark Israel filed an expert report demonstrating that the methodologies proposed by Plaintiffs' expert failed in a variety of ways, including an inability to ascertain the relevant class members/purchases and a failure to account for intergovernmental reimbursements received by the putative class members. Dr. Israel's report also showed that in many cases, members of the putative class suffered no injury at all, meaning that substantial individualized inquiry would be required and that class-wide methods were inappropriate.

Dr. Israel had previously submitted an expert report in a similar case against Trinity in Wisconsin, and in that case, Plaintiffs subsequently agreed in July 2016 to a full settlement of their claims in which Trinity paid nothing. In the Illinois case, again, prior to a hearing on the class issues, Plaintiffs stipulated in August 2017 to a complete dismissal of all their claims with prejudice and without payment of any money by Trinity.

In both the Wisconsin and Illinois cases, Dr. Israel was supported by a team in Compass Lexecon's Chicago and Washington, DC offices led by Todd Kendall and Ian MacSwain. Trinity was successfully represented in the proceedings by Adam Hoeflich of Bartlit Beck Herman Palenchar & Scott LLP, as well as attorneys from Gibson, Dunn & Crutcher LLP, including Andrew Blumberg, Christine Demana, Bradley Hubbard, Andrew LeGrand, Brian Robison, and Benjamin Wilson, and attorneys from Akin Gump Strauss Hauer & Feld LLP, including Michelle Reed and Elizabeth Marie Dulong Scott.

Suzano Acquisition of Fibria

In March 2018, Suzano Papel e Celulose S.A. (Suzano) announced its plan to acquire Fibria Celulose S.A. (Fibria). The two companies are both leading Brazilian suppliers of eucalyptus pulp in the Americas, Europe, and Asia. Compass Lexecon was retained by Freshfields Bruckhaus Deringer LLP, counsel for Suzano, to assist with obtaining regulatory approval in three key jurisdictions: the United States, Europe, and China. Compass Lexecon assembled a global team of competition economists led by Jon Orszag and Mary Coleman for the United States, Kirsten Edwards-Warren for Europe, and Elizabeth Wang for China. The teams worked together closely across various offices and assisted counsel for Suzano in preparing notifications and economic analyses. These analyses took into account local market conditions and ensured consistency across jurisdictions regarding market definition, market shares, and the impact of the transaction on pulp trade flows. Regulators in the United States, Europe, and China all cleared the transaction.

Dr. Coleman and Mr. Orszag were supported by a team led by Nauman Ilias that included John Campbell, Anh Dao, and Saikun Shi. Ms. Edwards-Warren was supported by a team led by Dennis Beling that included John Ivory, Su-Ann Lim, Jake Cheng, Anh Dao, Saikun Shi, and Conor Duggan. Dr. Wang was supported by a team also led by Dennis Beling that included John Ivory, Su-Ann Lim, Jake Cheng, Anh Dao, and Saikun Shi.

The Compass Lexecon teams worked closely with Paul Yde, Mary Lehner, and Ilana Kattan of Freshfields Bruckhaus Deringer LLP in Washington, DC, Rafique Bachour, Paul van den Berg, Laurent Bougard, and Olivier Van den Rul of Freshfields Bruckhaus Deringer LLP in Brussels, Ninette Dodoo, Donghao Cui, and Tracy Lu of Freshfields Bruckhaus Deringer LLP in Beijing.

The Valspar Corporation, et al. v. E.I. DuPont De Nemours and Co., et al.

In October 2017, the Third Circuit Court of Appeals affirmed a District Court order granting summary judgment for DuPont in this antitrust case brought by Valspar, which involved allegations of price fixing in the sale of titanium dioxide (TiO₂) by four defendants. Compass Lexecon Senior Consultants Professors Robert Willig and Daniel Rubinfeld served as experts on behalf of the four Defendants (DuPont, Huntsman, Kronos and Millennium). Professors Willig and Rubinfeld submitted expert reports addressing liability and damages, respectively. They examined and empirically analyzed the companies' business conduct in detail, finding it more consistent with competition than with collusion. DuPont won its motion for summary judgment in January 2016, while the other three defendants settled with Valspar thereafter.

Professor Willig was supported by a Compass Lexecon team including Mary Coleman, David Weiskopf, Nauman Ilias, Dan Churette, Mihir Narain, Rob Oandasan and Prerana Nanda. Professor Rubinfeld was supported by a Compass Lexecon team including Aren Megerdichian and Matt Krietzberg. Compass Lexecon worked closely with a number of attorneys on this matter, including Shari Ross Lahlou and Joshua Stokes of Crowell & Moring LLP; Anne Davis, Ryan Watts and James Cooper of Arnold & Porter Kaye Scholer LLP; Paul Coggins and Kelly Vickers of Locke Lord LLP; and James Reeder, Jr., Erica Krennerich and Kathleen Bone Spangler of Vinson & Elkins LLP.

CME Group Inc. Completes Acquisition of NEX Group plc

Compass Lexecon was retained to represent CME Group Inc. in connection with its \$5.4 billion acquisition of NEX Group plc. The deal combined the largest US-based futures exchange and a leading operator of cash trading platforms and post-trade services. In particular, the transaction combined the U.S. Treasury futures contracts traded at CME with NEX's BrokerTec platform—the largest trading venue for cash U.S. Treasury securities. In response to the questions raised by the U.S. Department of Justice and the UK Competition and Markets Authority that the merger might lead to unilateral effects in the provision of electronic trading platforms for U.S. Treasury products and questions that cash and futures U.S. Treasury products might be demand substitutes, a Compass Lexecon team lead by Mark Israel and Thomas Stemwedel presented econometric analyses that demonstrated that U.S. Treasury futures and cash U.S. Treasury securities are not economic substitutes. After an extensive investigation, which focused heavily on a series of submissions made by Compass Lexecon, DOJ and CMA closed their investigations. Mark Israel and Thomas Stemwedel were supported by a team including Ian MacSwain, Ben Spulber, John Hassett, Gloriana Alvarez and Piyal Hyder. We were retained by Ben Crisman, Ken Schwartz, Joseph Rancour, and Anjali Patel of Skadden, Arps, Slate, Meagher & Flom LLP to assist CME in the merger review process. We also worked closely with Timothy Cornell and Brian Concklin of Clifford Chance, who were retained by NEX, and Tim Smith and Joey Graves of CME.

Hewlett-Packard Company and Consolidated Subsidiaries v. Commissioner of Internal Revenue

In November 2017, the United States Court of Appeals for the Ninth Circuit affirmed the Tax Court's decision in favor of Compass Lexecon's client, the Commissioner of Internal Revenue. The Tax Court's ruling turned on whether an investment by the Petitioner in a foreign entity named Foppingadreef could be treated as equity for which HP could claim foreign tax credits. The Petitioner, Hewlett-Packard Company and Consolidated Subsidiaries, had sought approximately \$177.6 in foreign tax credits and a \$15.6 million capital loss deduction in connection with the transaction at issue. In its ruling, the Tax Court held that Petitioner's investment, which Petitioner had characterized as equity, was more appropriately characterized as debt. David Ross of Compass Lexecon provided expert testimony on this issue, and his testimony was specifically cited by the Tax Court as being "of particular import to our decision." Mr. Ross was assisted by Kevin Hartt.

Puerto Rico Preliminary Injunction Hearing

In this matter, Peaje Investments (Plaintiff), a distressed debt investor, sought a temporary restraining order and preliminary injunction that would have required the Puerto Rico Highways & Transportation Authority (PRHTA) to resume depositing approximately \$100 million per year in toll revenues and fines collected from Puerto Rico's toll roads with the fiscal agent for the collateral account supporting certain PRHTA bonds, as opposed to using these funds to pay general expenses. Alternatively, Peaje Investments sought an order requiring the PRHTA to provide Plaintiffs with adequate protection under Section 361 of the Bankruptcy Code-incorporated into Title III under Section 301 of the Puerto Rico Oversight, Management

and Economic Stability Act (PROMESA). Compass Lexecon and its Senior Advisor Dr. Jonathan Arnold were retained by PRHTA to analyze and respond to Plaintiff's claims.

At the preliminary injunction hearing on August 8, 2017, Plaintiff's expert testified that the equity cushion (i.e., the value of the collateral in excess of the value of any allegedly secured claims) supporting the PRHTA bonds at issue would be eroded by the PRHTA's use of the toll revenues to fund its general expenses.

Dr. Arnold testified in response, describing his analysis which demonstrated that based on the revenues generated by the toll roads there was an adequate equity cushion to protect the bondholders. Dr. Arnold also testified about numerous errors in Plaintiff's expert's analysis and testimony. Judge Laura Taylor Swain agreed with Dr. Arnold's analysis and his criticisms of Plaintiff's expert and concluded that Plaintiff's and its expert's claims were "speculative" and failed to demonstrate that "the value of Peaje's equity cushion [was] likely to be further depleted at all or in the near term." As a result, Judge Swain denied Plaintiff's request for a preliminary injunction and its alternative request for adequate protection.

The Puerto Rico Fiscal Agency and Financial Advisory Authority and the Puerto Rico Highways and Transportation Authority were represented by M. Randall Oppenheimer, Peter Friedman, Elizabeth McKeen, Ashley Pavel and Garo Hoplamazian of O'Melveny & Myers LLP. The Financial Oversight and Management Board for Puerto Rico, as representative of the Commonwealth of Puerto Rico pursuant to the Puerto Rico Oversight, Management and Economic Stability Act (PROMESA) was represented by Martin Bienenstock, Stephen Ratner, Timothy Mungovan, Bradley Bobroff and Laura Stafford of Proskauer Rose LLP. The Compass Lexecon team supporting Dr. Arnold was led by Michael Kwak, with assistance from Mihir Gokhale and Nick Fasano from Compass Lexecon's New York office.

ICSID Arbitration Relating to Unfair Treatment of Venezuelan Flour Producers

Professor Pablo Spiller was retained by Valores Mundiales S.L. and Consorcio Andino S.L. (Claimants), two large-scale producers of flour and related products, as quantum experts in an ICSID arbitration against the Republic of Venezuela. The dispute arose from a series of measures enacted by Venezuela which interfered with the normal functioning of the Claimants' business in Venezuela. An ICSID Tribunal found Venezuela's measures to be discriminatory and in violation of the Fair and Equitable Treatment standard. As a result, it granted Claimants damages in the amount of \$430.4 million as the difference between the fair market value of the business as of January 2013 (when the last of these measures was enacted) and the value of a contemporaneous transaction.

The Tribunal agreed with Professor Spiller's projection of the companies' "but-for" cash flows, rejecting every adjustment proposed by Respondent's experts. The Tribunal also relied on Professor Spiller's calculation of the discount rate, applying only a minor adjustment that increased the discount rate by 0.08 percentage points, from 10.12 percent to 10.20 percent, and rejecting Venezuela's expert's 19.16 percent discount rate. Relying on Professor Spiller's cash flows and the adjusted discount rate, the Tribunal concluded that the "but-for" value of Claimants' investments was \$572.8 million, almost the same as the \$579.5 million estimated by Professor Spiller. In addition, the Tribunal agreed with Professor Spiller's estimate of additional damages of \$50.2 million, corresponding to Venezuela's ordered diversion of more than 86,400 metric tons of corn from Claimants' inventories to their competitors in 2012.

The Tribunal ultimately awarded Claimants damages in excess of \$430 million as of January 22, 2013, plus interest and costs for Venezuela's failure to provide Claimants' investments a Fair and Equitable Treatment, while allowing Claimants to maintain their ownership of their Venezuela investment.

Gustavo De Marco led the team supporting Compass Lexecon's experts and was assisted by Andrés Casserly and Nancy Cherashore. Compass Lexecon worked with a legal team at Covington & Burling LLP, led by Miguel López Forastier.

CenturyLink Acquisition of Level 3

Compass Lexecon was retained by counsel for CenturyLink to analyze competitive effects associated with CenturyLink's acquisition of Level 3. The Compass Lexecon team, headed by Michael Katz, Hans-Jürgen Petersen, Ka Hei Tse, and Glenn Woroch, analyzed building level competition for Business Data Services (BDS). The team investigated extent and location of competitive fiber facilities relative to U.S. commercial buildings served by optical fiber from both CenturyLink's and Level 3's fiber networks. As it is more cost-effective for other fiber competitors to extend their fiber network when there is the prospect of significant demand for bandwidth, a study of estimated demand for bandwidth for these buildings was also conducted. The results of the analyses were presented to both Department of Justice and Federal Communications Commission to assist the client in obtaining regulatory approval for the merger. The team worked closely with in-house counsel for CenturyLink and Level 3 and with outside counsel Ilene Gotts and Monica Smith from Wachtell, Lipton, Rosen & Katz, Yaron Dori and Brandon Johnson from Covington & Burling LLP and Bruce McDonald and Robert Dahnke from Jones Day.

Tyson Foods / Keystone Merger

Compass Lexecon was retained by Axinn, Veltrop & Harkrider LLP, counsel for Tyson Foods, Inc. to assist with obtaining expedited regulatory approval of its acquisition of Keystone Foods in multiple jurisdictions around the world. The two companies are leading suppliers of protein products such as beef, pork, and chicken, around the world. Anticipating the complexity of cross-country economic analysis, Compass Lexecon assembled a team of U.S. and Asian experts led by Dr. Mark Israel in Washington, DC and Dr. Elizabeth Wang in Boston. Both experts and their teams closely coordinated their efforts to develop a consistent economic rationale demonstrating that the transaction would not harm competition.

To shorten the regulatory approval process, Tyson Foods filed merger notifications concurrently in multiple jurisdictions, including China, Japan, South Korea and the United States. On the U.S. side, Dr. Israel worked closely with the Axinn team to define the relevant downstream market and calculate the parties' shares in processed poultry products and to demonstrate that competition would remain intense post-merger. Dr. Israel also showed that there would be a sufficient number of chicken-processing facilities available to growers in the upstream market post transaction to maintain competitive pricing. On the Asian side, Dr. Wang worked closely with the Axinn team and Tyson Foods' local counsel in the three Asian countries. She focused on analyzing market definition and market shares, taking into account local specificities in the three Asian countries. Ultimately, all four antitrust agencies, SAMR in China,

JFTC in Japan, KFTC in Korea, and DOJ in the U.S., cleared the transaction in October and November 2018.

Dr. Israel was supported by a team led by Loren Poulsen and Maria Stoyadinova that included Prerana Nanda, Christopher Rybak, Arela Haluci, Mariah Witteveen and Theodore Kalambokidis. Dr. Wang was supported by a team led by Jason Wu that included Jake Cheng, Bella Li, and Segye Shin. The Compass Lexecon team worked closely with Michael Keeley, Bradley Justus, Carmel Arikat, and Kail Jethmalani of Axinn, Veltrop & Harkrider LLP in the US, Janet Hui and Francis Yang of Junhe LLP in China, and Miles Chung of Kim & Chang in Korea.

Plantronics Antitrust Matter

After deliberating for less than one hour, a jury cleared Compass Lexecon's client, headset manufacturer Plantronics, on all counts in an antitrust suit filed five years ago by competitor GN Netcom, maker of the Jabra brand of headsets. GN alleged certain Plantronics business arrangements violated antitrust law by prohibiting Plantronics dealers from purchasing directly from, or actively promoting the headsets of, a competing manufacturer. At trial, GN sought damages of more than \$600 million (after trebling). In response, Plantronics contended that its business agreements promoted competition, benefitted customers, and did not substantially foreclose competition.

Compass Lexecon experts Professor Richard Gilbert and Dr. James Ratliff testified at trial on behalf of Plantronics regarding liability and causation/damages, respectively. Professor Gilbert explained to the jury the procompetitive role of Plantronics' business arrangements in building a distribution network, and rebutted Plaintiff's expert's expansive theory of foreclosure. Dr. Ratliff criticized Plaintiff's expert for failing to show harm to GN itself as well as describing fundamental flaws in Plaintiff's damages model.

Plantronics was represented by Russell Hayman, Jon Dean, Rita Yoon, and Sarah Walters of McDermott Will & Emery; Jonathan Jacobson and Chul Pak of Wilson Sonsini Goodrich & Rosati; and Jack Blumenfeld and Jennifer Ying of Morris, Nichols, Arsht & Tunnell LLP. Professor Gilbert and Dr. Ratliff were supported by a team in Compass Lexecon's Oakland office that included Kun Huang, Kelvin Huang, Taylor Hines, Kiana Ocean, and Nathan Hyatt.

Milwaukee Electric Tool Patent Litigation

In this matter, a jury found in favor of Compass Lexecon's client, power tool manufacturer Milwaukee Electric Tool (Milwaukee), on all counts in a patent infringement suit after less than one day of deliberation.

Milwaukee filed suit against Snap-On, another power tool manufacturer, in District Court in 2014, alleging that Snap-On infringed upon Milwaukee's patents on the use of lithium-ion battery packs in power tools. The District Court litigation was stayed for several years while Snap-On and others challenged the patents before the Patent & Trademark Office's Patent Trial and Appeal Board through *inter partes* reviews (IPRs). Compass Lexecon expert Dr. Allan Shampine worked with Scott Sherwin and Jason White of Morgan, Lewis & Bockius LLP through the course of twelve IPR challenges filed against the patents, including those filed by Snap-On. Dr. Shampine provided testimony in the IPRs with respect to secondary considerations

of nonobviousness – facts in the marketplace that demonstrate the patented technology was not obvious. All of the IPR challenges were rejected by the Patent Trial and Appeal Board.

Milwaukee’s case then proceeded in the District Court, where Milwaukee sought royalties of \$28M to \$33M. Snap-On argued that the Court should invalidate the patents because they were obvious, and that any damages should not exceed \$1.3M. Dr. Shampine again provided testimony that the economic evidence showed the patents were not, in fact, obvious and therefore were valid. The jury found that the patents were valid and were infringed, and awarded damages of \$28 million. The jury also found that the infringement was willful, allowing for enhanced damages from the Court, up to trebling the award.

At the District Court trial, Milwaukee was represented by full trial teams from Morgan, Lewis & Bockius LLP and Reinhart Boerner Van Deuren s.c. Dr. Shampine was supported by a team in Compass Lexecon’s Chicago office led by Margaret Hlebowitsh.

Pennsylvania Higher Education Assistance Agency False Claims Act Litigation

In this matter, Jon H. Oberg, a former Department of Education (DOE) employee, sued numerous companies across the United States for making false claims against the “Special Access Program” administered by DOE. This program offers subsidies to eligible organizations that provide student loans.

DOE’s Special Access Payment (SAP) program underwent multiple changes between 1980 and 2010. One of the changes constrained certain participants to half of the standard SAP, subject to a 9.5 percent minimum interest subsidy. In particular, student loans that were funded by tax-exempt funding vehicles were entitled to the so-called “half-SAP.” Later, some student lenders found it profitable to transfer student loans subject to half-SAP rules into funds financed with taxable money, thus obtaining full-SAP subsidies from the U.S. government. In the mid-1990s, DOE prohibited further re-characterizations from half-SAP to full SAP.

In or about 2001, interest rates fell sharply and stayed low. Student lenders, faced with a changed set of economic circumstances, found it desirable to move student loans from full-SAP vehicles to half-SAP vehicles (a recharacterization that had not been prohibited by prior DOE rules or Congressional legislation). Over one dozen student lenders recharacterized billions of dollars of student loans in this fashion in the early 2000s. Mr. Oberg, as an employee of DOE, made an FCA referral to the U.S. Department of Justice, which declined to prosecute. Mr. Oberg subsequently sued nine lenders ex rel. All of them, excepting the Pennsylvania Higher Education Assistance Agency, settled for an aggregate of \$100 million. The Pennsylvania Higher Education Assistance Agency litigated to jury verdict and prevailed in December 2017.

Jonathan Arnold, PhD., a Senior Consultant with Compass Lexecon, served as the expert witness on regulatory economics issues relating to the SAP subsidy program. He also examined (i) whether and to what extent regulatory changes, and subsequent economic developments, led to unintended consequences with regard to special allowance payments and (ii) the federal government’s and PHEAA’s responses to those changes and unintended consequences.

Dr. Arnold was supported by a team in Compass Lexecon’s Chicago office led by Anne Marie Yale. Compass Lexecon worked with Matthew Regan, Michael Glick, Judson Brown, Tracie Bryant and Thomas Weir of Kirkland & Ellis LLP and Craig Reilly of The Office of Craig C. Reilly, Esq.

TCL Corporation Patent Litigation

In December 2017, Judge James V. Selna of the U.S. District Court for the Central District of California ruled in favor of Compass Lexecon's client, TCL Corporation, in a patent infringement suit involving the setting of Fair, Reasonable and Non-Discriminatory (FRAND) rates for a portfolio of wireless patents. Compass Lexecon Senior Consultant Professor Janusz Ordover testified on behalf of TCL at trial on the economic interpretation of FRAND, particularly with respect to non-discrimination. Judge Selna found that similarly situated firms should be able to receive the same rates, and, in particular, found that all "reasonably well-established" international firms were similar to one another. He also rejected claims that firms like Apple were not similarly situated to firms like TCL, finding that "the prohibition on discrimination would mean very little" if that were the case.

Judge Selna thus found that the patent holder, Ericsson, did not offer TCL the portfolio on fair, reasonable and non-discriminatory terms. He determined that the total FRAND payment was \$16.5 million and not \$100 million demanded by Ericsson.

At the trial, TCL was represented by counsel from Sheppard, Mullin, Richter & Hampton LLP, including Stephen Korniczky, Martin Bader, Matthew Holder and Ryan Cunningham. Professor Ordover was supported by a team in Compass Lexecon's Chicago and Washington, DC offices led by Allan Shampine and Theresa Sullivan.

Optical Disk Drive Litigation

In December 2017, Judge Richard Seeborg of the U.S. District Court for the Northern District of California granted summary judgment in favor of Compass Lexecon's clients in two related matters involving alleged price fixing by manufacturers of optical disk drives ("ODDs").

In one case, Judge Seeborg granted summary judgment in favor of Defendants Samsung, Toshiba, Toshiba Samsung Storage Technology Corporation and BenQ. A class of indirect purchasers of ODDs alleged that supracompetitive prices of ODDs sold to computer manufacturers such as Dell and HP were fully passed through at each level of the computer production and distribution chain, resulting in higher computer prices and/or a reduction in the quality of computers sold to consumers. In support of their claims, indirect purchaser plaintiffs proffered an expert report purporting to show 100% pass-through of the alleged overcharge to consumers.

Compass Lexecon expert Dr. Andres Lerner submitted a report and testified at deposition, identifying fundamental flaws in Plaintiffs' expert's pass-through analyses and conclusions. Judge Seeborg agreed with Dr. Lerner's conclusions, stating that "while [plaintiffs' expert's] report conveniently theorizes 100% pass-through at every stage of the distribution chain," it failed to demonstrate that alleged ODD overcharges were passed through either in higher-priced or lower-quality computers. Judge Seeborg granted Defendants' motion for summary judgment, concluding that indirect purchaser plaintiffs and their expert failed to demonstrate a "genuine issue of material fact as to pass-through, which underlies [indirect purchaser plaintiffs'] theory of causation, injury, and damages."

Judge Seeborg granted summary judgment in favor of Defendants in a second price fixing case brought by retailer Plaintiffs, Circuit City and Radio Shack. Retailer Plaintiffs claimed that as a result of the alleged ODD conspiracy, they were injured on their direct

purchases of computers and other products incorporating optical disk technology (including audio devices, DVD players, Blu-ray players and game consoles) from Defendants.

Dr. Lerner described various flaws in the theories and empirical analyses of retailer Plaintiffs' experts who purported to show that the alleged ODD conspiracy targeting computer manufacturers would have resulted in higher prices for products sold directly by Defendants to Circuit City and Radio Shack, including computers and "Other Products" containing optical disk technology. Judge Seeborg agreed with Dr. Lerner's conclusions, ruling that retailer Plaintiffs and their experts failed to present "any theory as to how the conspiracy would have affected customers other than those specifically targeted, let alone present any evidence that this actually occurred." As a result, retailer plaintiffs failed to provide "sufficient evidence to proceed with their claims based on purchases incorporating ODDs or 'Other Products.'"

The Compass Lexecon team worked closely with counsel representing Defendants, including Ian Simmons of O'Melveny & Myers LLP, and Belinda Lee and Brendan McShane of Latham & Watkins LLP. The joint defense team also included George Mastoris of Winston & Strawn LLP; Beko Reblitz-Richardson from Boies Schiller Flexner LLP; Mark Popofsky of Ropes & Gray LLP; Evan Werbel and Stuart Plunkett from Baker Botts LLP; Eric Enson of Jones Day; Lisa Kaas from Blank Rome LLP; Jason Levine of Vinson & Elkins LLP; and Aharon Kaye from Katten Muchin Rosenman LLP. Dr. Lerner was supported by a team in Compass Lexecon's Century City office led by Emmett Dacey that included Janin Wimer, Joshua Waller, Joel Moore, Pauline Rouyer, Aren Megerdichian and Renita Lee.

Verizon and Hewlett-Packard Post-Dell Delaware Appraisal Decisions

Compass Lexecon was retained in the first two cases decided following the Delaware Supreme Court's landmark decision in *In re: Appraisal of Dell, Inc.* The courts in both cases reached fair value determinations below the respective deal prices resulting in victories for Compass Lexecon clients, Verizon and Hewlett-Packard. Compass Lexecon experts testified in both trials.

In re: Appraisal of AOL, Inc. involved a stockholder appraisal action resulting from Verizon Communications Inc.'s \$4.4 billion acquisition of AOL Inc. AOL shareholders who voted in favor of the deal received the merger consideration of \$50 per share. A group of shareholders dissented and demanded appraisal, claiming that the merger consideration substantially undervalued the firm and that their shares were worth \$68.98.

Compass Lexecon President Daniel Fischel testified at trial on behalf of Verizon that based on the economic evidence, the standalone fair value of AOL shares was below the \$50 merger consideration. In February 2018, Vice Chancellor Sam Glasscock III ruled that based on the Fischel analysis with certain minor adjustments, the fair value of AOL was \$48.70 per share.

Following the decision, both parties moved to modify the adjustments made by VC Glasscock. Professor Fischel submitted an affidavit opining, among other things, that petitioners' expert's adjustment methodologies were fundamentally flawed and that the adjustment proposed by VC Glasscock regarding a certain transaction that was in process as of the date of the acquisition would result in a value of \$46.78 per AOL share. In an August 2018 decision, VC Glasscock accepted Professor Fischel's critiques of petitioners' expert as well as the adjustment methodology proposed by Professor Fischel to account for the relevant transaction and revised his opinion on the fair value of AOL downwards to \$47.08 per share. Professor Fischel was

supported by a team at Compass Lexecon that included Rahul Sekhar, Robin Stahl, Jonathan Polonsky, Avisheh Mohsenin, Quinn Johnson, Andrew Lin and Nabila Lotayef. We worked with William Savitt, Nicholas Walter and Ryan McLeod of Wachtell, Lipton, Rosen & Katz and Kevin Shannon and Christopher Kelly of Potter Anderson & Corroon LLP who successfully represented Verizon.

In re: Appraisal of Aruba Networks, Inc. involved the acquisition of Aruba Networks, Inc. by Hewlett-Packard Company. Aruba shareholders who voted in favor of the deal received the merger consideration of \$24.67 per share. A group of shareholders dissented and demanded appraisal, claiming that the merger consideration substantially undervalued the firm and that their shares were worth \$32.67. Compass Lexecon expert Kevin Dages testified at trial on behalf of Hewlett-Packard, opining that the standalone fair value of Aruba shares was less than the \$24.67 merger consideration. In February 2018, Vice Chancellor J. Travis Laster concluded that the fair value of a share of Aruba was \$17.13 per share, or 30 percent below the merger consideration. Dages was supported by a team at Compass Lexecon that included Tim McAnally and Jennifer Milliron. We worked with Marc Sonnenfeld, Karen Pieslak Pohlmann and Laura Hughes McNally of Morgan, Lewis & Bockius LLP and Michael Kelly and Steven Wood of McCarter & English, LLP who successfully represented Hewlett-Packard.

Class Certification Proceeding in the Supreme Court of British Columbia Re: RoRo Services

In December 2017, the Honorable Mr. Justice Myers of the Supreme Court of British Columbia declined to certify the proposed class in a class proceeding brought by a Plaintiff representing direct and indirect purchasers of roll-on/roll-off (RoRo) vessel services used for shipping vehicles and heavy equipment from overseas to Canada. The case involved allegations that the Defendant group of RoRo vessel operators had conspired to raise the price of shipping services to overseas vehicle and heavy equipment manufacturers. Plaintiffs alleged that the conspiracy led to higher prices for overseas imported vehicles and heavy equipment purchased by dealers and end-consumers.

Compass Lexecon Senior Managing Director Dr. Mark Israel submitted an affidavit on behalf of the defendant group of RoRo vessel operators addressing the issues of the alleged overcharge and pass-through, and testified at a cross-examination in response to Plaintiff's expert. Justice Myers cited to Dr. Israel's affidavit throughout his written decision, and ultimately declined to certify the proposed class on the basis that Plaintiff's expert had not demonstrated that he would have sufficient data to implement his model of pass-through and damages, leaving Dr. Boyer's opinion "purely theoretical." The decision marks a rare victory for defendants in class proceeding in Canada, where defendants have struggled to prevent class certification in such cases.

Dr. Israel was supported by Jonathan Bowater and Bryan Keating in Compass Lexecon's DC office. Compass Lexecon worked with Dr. A. Neil Campbell, Casey Halladay and Joan Young of McMillan LLP, Katherine Kay and Eliot Kolers of Stikeman Elliot LLP, Randall Hofley, Robin Reinertson and Litsa Kriaris of Blake, Cassels & Graydon LLP and Kevin Wright, Todd Shikaze and Emily Snow of DLA Piper.

Arbitration Involving Renewable Energy Dispute With Spain

Compass Lexecon expert Dr. Manuel Abdala was retained by Novenergia II Energy & Environment (SCA) SICAR (Claimant) as economic and quantum expert in an Energy Charter Treaty arbitration against Spain, held under SCC rules. The dispute centered on several claims affecting the value of Claimant's investments in eight photovoltaic (PV) plants due to certain modifications in Spain's regulatory regime for renewables and the ensuing overhaul of such regime, in mid-2013.

The Tribunal found that the overhaul, which replaced Feed-in Tariffs (FIT) with a price system based on an allowed rate of return for benchmark PV plants implied a "radical and unexpected" departure from the regulatory regime in place at the time of investment, and that such departure had a "significant damaging economic effect" on Novenergia's plants.

Dr. Abdala's opinions assisted the Tribunal on several fronts. His testimony helped establish that the overhaul of the regime substantially deprived Claimant of its investment value on all of its PV plants, by reducing plant revenues by 24-32% between 2013 and 2016. Dr. Abdala also demonstrated that, despite Spain's experts claim to the contrary, the new regime was not less risky and did not result in higher internal rates of returns to the investor. Thus, the Tribunal ruled out the notion that the change in regime could have been beneficial to Claimant. In doing so, the Tribunal also rejected the regulatory risk premium that Spain's experts had included in the discount rate under the FIT regime.

The arguments and evidence put forward by Dr. Abdala also convinced the Tribunal that no illiquidity discount ought to be included in the valuation, given that the statistics on renewable transactions in Spain showed entirely normal exit times. The Tribunal agreed with Dr. Abdala's opinion on how the operating costs of the plant would have evolved under the FIT regime. In terms of damages valuation, the Tribunal concluded that "...it considers the DCF-model presented by Compass Lexecon to be conventional, robust and sufficiently substantiated to form the basis of the damages evaluation in this case." The Tribunal thus granted damages of €3.3 million due to the overhaul of regime, based on Dr. Abdala's quantification.

Dr. Abdala was supported by a Compass Lexecon team that was led by Carla Chavich, and included Alan Rozenberg and Andres Barrera. Claimants were represented by Fernando Mantilla-Serrano, Antonio Morales, John Adam, Rosa Espin, Aija Lejniece and Nora Fredstie of Latham & Watkins LLP.

Payment Card Interchange Fee Judgment

In a landmark judgment in July 2018, the Court of Appeal of England and Wales decided in favor of Compass Lexecon's clients on the lawfulness of interchange fees. The Court relied heavily on Compass Lexecon's Neil Dryden in its decision, making numerous references in its conclusions to Mr. Dryden's "framework" for balancing the costs and benefits of interchange fees. In particular, the Court held that Mr. Dryden's framework identified "a critical aspect of the balancing exercise required"; the Court adopted Mr. Dryden's nomenclature for critical variables, and agreed with Mr. Dryden's key proposition that the proportion of "always card" transactions (i.e., transactions that would have occurred anyway without interchange fees) and the level of issuer to cardholder pass-through were critical issues to whether interchange fees created net benefits; and the Court agreed with the contention of the claimants that the failure to

assess the level of pass-through was “fatal” to MasterCard’s case for exemption. The Court also found, consistent with the evidence of Mr. Dryden and contrary to MasterCard’s expert, that business stealing was not a benefit within the relevant statutes.

Mr. Dryden was assisted by a team at Compass Lexecon including Vice Presidents Laura Phaff and Stefano Trento. Other team members included Catalina Campillo, Gwilhem Charbonnier, Scott Holbrook, Vilen Lipatov, Abbas Mohsin, Orjan Sandewall, Segye Shin and Daniel Westrik. Compass Lexecon worked closely with counsel from Stewarts Law LLP including partners Stuart Carson, Inge Forster, Kate Pollock and Jonathan Sinclair, and also Matthew Akroyd, Nick Haworth, Leah Keen, Mark Lewis, Zachary Sananes, Matthew Tighe and William Towell. Compass Lexecon also worked closely with the barrister team including, at the appeal stage, Jon Turner QC, Meredith Pickford QC, Christopher Brown and Max Schaefer.

Carfax Litigation

In September 2016, District Judge Alison J. Nathan heard a motion for partial summary judgment from Compass Lexecon’s client Carfax, the leading provider of vehicle history reports (VHRs). The Plaintiffs in this class brought an antitrust suit against Carfax alleging that Carfax’s exclusive dealing arrangements foreclosed a sufficient portion of the market. Judge Nathan, relying on expert reports and deposition testimony from Dr. Robert Willig in her decision, granted Carfax’s motion for partial summary judgment, finding that Carfax’s conduct did not foreclose a sufficient portion of the market.

Plaintiffs in this matter were 469 dealers of used cars that challenged Carfax’s exclusive dealings with certified pre-owned (CPO) vehicle programs and websites advertising for-sale vehicles (e.g. Autotrader or Cars.com). Specifically, Plaintiffs alleged that agreements with CPO programs to use Carfax VHRs in promoting their CPO vehicles adversely affected competition in the market for VHRs and Carfax’s agreements with Cars.com and Autotrader to be the exclusive VHR provider for these sites also adversely affected competition in the market for VHRs. Judge Nathan relied on evidence put forth by Dr. Willig that “CPO Agreements were sufficiently short-term and/or terminable that they could not have foreclosed competition” and that “Website Agreements did not foreclose competition because Autocheck [Carfax’s principle competitor] could reach consumers through other means.” Further, Judge Nathan relied on evidence presented by Dr. Willig in his Reply Report that the foreclosure estimates used by Plaintiffs’ expert were unreliable, finding that “[Plaintiffs’ expert’s] foreclosure estimate was based on an artificially small figure for Carfax’s VHR sales, and therefore an artificially small estimate of the overall size of the market.”

Plaintiffs appealed the ruling to the Second Circuit Court of Appeals, which reviewed the award of summary judgment *de novo*. In their June 1, 2018 ruling, the Court affirmed the original summary judgment, again relying on the evidence presented by Dr. Willig. Specifically, the Court found that “[Plaintiffs’ expert] should have recognized the methodological flaw” in his analysis, a flaw that was criticized by Dr. Willig in the original proceeding. Further, the Court highlighted other evidence presented by Dr. Willig, namely that “a majority of the CPO agreements [at issue in the case] were non-exclusive and, thus, could not have foreclosed competition as a matter of law.”

Dr. Willig was supported by a team in our Washington, DC office that was led by Mary Coleman and included Maria Stoyadinova, Bo Bourke, Georgi Giozov and Sahdia Khan. We

worked with James Cooper from Arnold & Porter Kaye Scholer LLP who successfully represented Carfax in this matter.

Aruze USA and Universal Entertainment v. Wynn Resorts

Universal Entertainment and its subsidiary Aruze USA brought a lawsuit against Wynn Resorts, alleging that Aruze's shares of Wynn Resorts common stock were redeemed at a discount that was too large and inconsistent with the shares' fair value.

Compass Lexecon Senior Consultant Professor Kenneth Lehn was retained by counsel for Wynn Resorts to respond to Aruze's expert's opinion regarding the appropriate restricted stock discount associated with the trading restrictions on Aruze's shares and the size of Aruze's stock holdings in Wynn Resorts. Professor Lehn explained that the opposing expert's assumptions and analyses were speculative and flawed. Wynn Resorts settled the case for a fraction of the damages sought by Aruze.

Professor Lehn was supported by Ralph Scholten, Shawn Chen, and Keming Liang and others in Compass Lexecon's Washington, DC and Pasadena offices. The Compass Lexecon team worked closely with Todd Bice of Pisanelli Bice, PLLC and Mitchell Langberg of Brownstein Hyatt Farber Schreck, LLP.

DraftKings/FanDuel Litigation

In November 2016, DraftKings and FanDuel, the two principal purveyors of daily fantasy sports (DFS) announced plans to merge. The FTC retained Mark Israel as an expert in its investigation of the merger and, ultimately, as a testifying expert in its effort to enjoin the merger.

A Compass Lexecon team supported Dr. Israel in his work, developing economic analyses demonstrating qualitatively and quantitatively that: (i) DFS was a well-defined product market within which DraftKings and FanDuel combined for the vast majority of sales, (ii) DraftKings and FanDuel were far and away each other's closest substitute, and thus (iii) the proposed merger likely would harm consumers. After a month's-long investigation that culminated in an FTC Complaint, the parties abandoned the proposed transaction.

Dr. Israel's Washington, DC-based support team was led by Theresa Sullivan and Loren Smith, and included Ben Wagner, Chris Rybak, Gloriana Alvarez, Mihir Narain, Kelly Dickson and Eric Yde. Compass Lexecon worked closely with a team of FTC lawyers and economists that included Mark Seidman, Stelios Xenakis, Elizabeth Schneirov and Jason O'Connor.

Guardian Protection Services, Inc. v. Emil Parent and Lawrence Cersosimo as Trustees of Irrevocable 1993 and 2008 Trusts for Russell L. Cersosimo

This case involved a dispute over the fair market value of 100% of the equity in Guardian Protection Services, Inc. (Guardian) as of January 31, 2016. The dispute was triggered when Russell Cersosimo, former chief executive officer of Guardian, exercised his rights under a shareholders agreement to put his 20% equity stake in Guardian to the company in exchange for its fair market value. Grossman Yanak & Ford LLP (GYF), which was retained by Guardian, estimated that the fair market value of Guardian was \$421 million. Imperial Capital and Barnes

Associates, retained by Mr. Cersosimo, estimated that the fair market value was \$652 million. As the parties were unable to agree on the fair market value of Guardian's equity, Judge Christine Ward of the Common Pleas Court of Allegheny County Compass directed the parties to retain a third party appraiser to resolve the dispute, as called for under the shareholders agreement. Baker Tilly was chosen as the third party appraiser.

Counsel for Guardian retained Professor Kenneth Lehn (i) to testify about the merits of the two valuation reports at a trial in Judge Ward's court and (ii) to make a presentation about the two reports to Baker Tilly. Professor Lehn opined that the GYF report was far more reliable than the Imperial/Barnes report, and that the fair market value of Guardian's equity was much closer to \$421 million than \$652 million. In its report issued on October 20, 2017, Baker Tilly reached the same conclusion and selected GYF's valuation of \$421 million.

Professor Lehn was supported by Ralph Scholten, Quinn Johnson, and others in the Chicago and Washington, DC offices. The Compass Lexecon team worked closely with Dan Booker and Jeffrey Weimer of Reed Smith LLP.

Lithium Ion Batteries Antitrust Litigation

In March 2018 a California judge officially rejected class certification for indirect purchaser plaintiffs over multidistrict price fixing in the lithium ion battery market. In the first phase of the proceedings, Compass Lexecon Senior Consultant Meg Guerin-Calvert served as expert on behalf of the Joint Defense Group, including expert reports and testifying at deposition. In April 2017, U.S. District Judge Yvonne Gonzalez Rogers used the findings of Guerin-Calvert's report and her economic opinions to strike parts of the Plaintiffs' expert testimony and to deny class certification.

Guerin-Calvert testified that the methodologies presented by Plaintiffs' experts failed multiple statistical tests and did not show class-wide harm. Guerin-Calvert's expert analyses and opinions identified that the pass-through analysis presented by Plaintiffs' experts did not analyze prices for various levels in the supply chain, failed to show pass-through for differentiated products, and did not account for focal point pricing. Judge Rogers found that "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" and that the Plaintiffs' expert opinions "about focal point pricing and adjustments to quality rather than cost, were not adequately supported or explained."

Guerin-Calvert was supported by a team experienced in all aspects of class certification analyses led by Loren Poulsen that included Jonathan Bowater, Jeff Raileanu, Joel Papke, and Ben Spulber. Compass Lexecon worked closely with counsel for the Joint Defense Group that included Winston & Strawn LLP, Cooley LLP, White & Case LLP, and Vinson & Elkins LLP.

Engie Antitrust Investigation

In September 2017, the French competition authority has accepted commitments by Engie, the French historical gas supplier, thus closing an antitrust investigation opened following a complaint lodged by Direct Energie, a new entrant in the natural gas market. Direct Energie claimed that Engie abused its dominant position in the gas supply markets by cross subsidizing its market offerings with its regulated tariffs, as well as by indulging in predatory pricing in

tenders organized by small and middle size firms. Compass Lexecon supported Engie in the design of commitments ensuring through a series of ex-ante and ex-post price-cost tests that there would be no cross-subsidization between the regulated and non-regulated offerings market segment and no predatory pricing. The Compass Lexecon team, comprising David Sevy, Frederic Palomino and Thibaut de Bernard, worked alongside Christophe Lemaire of Ashurst and Pierre Zelenko of Linklaters LLP.

Wholesale Price Discrimination Litigation Involving Living Essentials, Inc.

Compass Lexecon Senior Consultant Dr. Glenn Woroch was retained by Living Essentials, Inc. (best known for their product 5-hour ENERGY) and their outside counsel Gerry Hawxhurst and Daryl Crone from Crone Hawxhurst LLP in Los Angeles. A group of California distributors of consumer products claimed that Living Essentials violated Section 2(a) and 2(d) of the Robinson-Patman Act by its wholesale pricing policies for its “energy shot” products. Plaintiffs claimed that the class of distributors was disfavored relative to Costco Business Centers.

Dr. Woroch filed expert reports that showed how Plaintiffs’ expert failed to establish there was more than a de minimis differential per bottle, and to establish that sales throughout the entire state of California were affected. Dr. Woroch argued that Living Essentials tailored its product configurations and the corresponding pricing to distinct business models of distributors. He further showed that there was no statistical relationship between one of the Plaintiff’s resales and the claimed differentials in Living Essentials’ wholesale prices. The case was heard in U.S. District Court for Northern California by Judge Nathan Cousins. The parties settled just prior to the beginning of a jury trial. Dr. Woroch was supported by Nauman Ilias and Daniel Cherette from Compass Lexecon’s Washington, DC office.

Safran/Zodiac Merger

In December 2017, the European Commission unconditionally approved the transaction between French aerospace equipment suppliers Safran and Zodiac Aerospace after a Phase I investigation. The merger, creating the world’s third-largest aerospace supplier, required clearance in various jurisdictions, including the European Union, the United States of America, Russia, Turkey and China. Compass Lexecon provided a competitive assessment of the merger. We assessed the potential horizontal and vertical effects from the transaction and analyzed market shares in multiple jurisdictions. The European Commission concluded that the increase in market share from the merger was very limited and the merged entity would not gain market power over suppliers and customers. The transaction was cleared in all jurisdictions where it had been filed.

The Compass Lexecon team in Europe was led by Jorge Padilla and David Sevy, and included Jeremiah Juts, Valérie Meunier, Thibaut De Bernard, Aleksandra Khimich, Jaime Coronado Hinojosa, Anastasia Tseomashko and Helene Gallot. We worked closely with Maria Trabucchi, Jérôme Fabre and Giuliana Galbati from BDGS Associés and Eric Barbier de la Serre and Claire Lavin at Jones Day.

Intel's Acquisition of Mobileye

In March 2017, Intel announced that it planned to acquire Israel-based Mobileye, a global leader in the development of computer vision and machine learning for advanced driver assistance systems and autonomous driving. The combination of Intel and Mobileye will allow Mobileye's leading computer vision expertise (the "eyes") to complement Intel's high-performance computing (the "brains") to create automated driving solutions. The acquisition is expected to accelerate innovation for the automotive industry and position Intel as a leading technology provider in the fast-growing market for highly and fully autonomous vehicles. Intel estimates the vehicle systems, data and services market opportunity to be up to \$70 billion by 2030. The Federal Trade Commission (FTC) cleared the proposed transaction in June 2017.

Compass Lexecon's analyses focused on addressing the potential theories of harm based on the vertical relationship between the parties and concluded that the proposed merger would not enhance the market power of the integrated company. In addition, Dr. Israel and the Compass Lexecon economists supported the client with analyses of the nascent aspect of the industry, competition for each of the parties' core products and efficiencies in the context of a merger of complementary products.

The Compass Lexecon team was led by expert Dr. Mark Israel, who was supported by a team led by Guillermo Israilevich and including Bryan Keating and Rodrigo Montes. The Compass Lexecon team worked closely with Steve Sunshine, Maria Raptis, Joseph Rancour, Griff Almy and Anisa Somani, of Skadden, Arps, Slate, Meagher & Flom LLP.

Delta/AirTran Antitrust Case

In March 2018, a three judge panel of the U.S. Appeals Court for the 11th Circuit affirmed the lower court's granting of summary judgment to Compass Lexecon's client, Delta Air Lines, in an antitrust suit involving allegations that Delta colluded with Air Tran in instituting a first checked bag fee in 2008. The full Appeals Court in June 2018 refused Plaintiffs' request for a hearing, leaving in place the panel's ruling. Compass Lexecon Senior Consultant Professor Dennis Carlton testified on behalf of Delta at the lower court hearing, opining that industry conditions in 2008 would have pushed Delta toward adopting a first bag fee and that Delta had economically valid business justifications for adopting a first bag fee. In granting summary judgment for Delta and Air Tran, Judge Timothy Batten of the Northern District of Georgia found, in part, that Delta's competitors were already moving toward the use of bag fees at the time Delta instituted its fee and that Delta had valid reasons for adopting the fee, thus contradicting Plaintiff's allegation that Delta's fee was the result of a conspiracy with Air Tran.

At trial, Delta Air Lines was represented by Randall L. Allen and Samuel R. Rutherford from Alston & Bird LLP, and James P. Denvir III, Scott E. Gant and Michael S. Mitchell from Boies, Schiller & Flexner LLP. Professor Carlton was supported by a team in Compass Lexecon's Washington, DC office led by Theresa Sullivan.

Litigation Re: MetLife’s “Systemically Important Financial Institution” Designation

In March 2016, Washington, DC Federal District Court Judge Rosemary M. Collyer rescinded the designation of MetLife, Inc. as a “systemically important financial institution” (SIFI) that had been applied to the company by the Financial Stability Oversight Council (FSOC) in December 2014. Compass Lexecon Senior Affiliate Professor Christopher Culp and University of Chicago Booth School of Business Roman Family Professor of Finance and Robert King Steel Faculty Fellow Pietro Veronesi (who regularly collaborates with Professor Culp and Compass Lexecon) submitted a report to the FSOC that analyzed MetLife’s potential systemic risk arising from the firm’s derivatives activities. In their report, Professors Culp and Veronesi addressed whether the evidence indicated that the nature, size and scope of MetLife’s derivatives activities were sources of any significant systemic risks and concluded that MetLife’s derivatives activities did not pose any such systemic risks. Nevertheless, the FSOC designated MetLife as a non-bank SIFI anyway.

MetLife filed suit against the FSOC, arguing that the designation of MetLife as a SIFI was “arbitrary and capricious, conflicts with the [FSOC’s] statutory obligations under the Dodd-Frank Act and the rules and guidance that the [FSOC] promulgated for designating nonbank financial companies, and was reached through a procedure that denied MetLife its due process rights and violated the constitutional separation of powers.” The Court agreed and rescinded the designation in what the *Financial Times* called “the most serious threat to post-crisis U.S. financial reforms since the Dodd-Frank Act....”

The Department of Justice on behalf of the FSOC appealed Judge Collyer’s opinion to the U.S. Court of Appeals for the DC Circuit. The ongoing legal dispute gave rise to significant debate about the FSOC’s mandate well beyond the case of MetLife. On January 18, 2018, MetLife and the FSOC jointly asked the Appellate Court to dismiss the case. Treasury Secretary Steven Mnuchin applauded the move and further promised to work with regulators to try and “clarify and revise” the designation process for non-bank SIFIs, which Judge Collyer described in her original ruling as a “fatally flawed” process. MetLife thus is no longer at risk of being subjected to the potentially significant costs and disruptions related to a SIFI designation.

Professors Culp and Veronesi were supported by a Compass Lexecon team including Peter Clayburgh, Rajiv Gokhale, Andria van der Merwe, Andrea Neves (a Compass Lexecon Affiliate), Jonathan Williams, and others. MetLife was successfully represented by Eugene Scalia, Amir Tayrani, Ashley Boizelle and Indraneel Sur of Gibson, Dunn & Crutcher LLP.

Appeals Court Proceeding in Tax Dispute

In its May 2017 decision, the United States Tax Court rejected the claim of the Commissioner of Internal Revenue that the Estate of Andrew J. McKelvey owed \$41 million in taxes with respect to McKelvey’s 2008 income tax return for omitting what the Commissioner alleged were short- and long-term capital gains arising from the execution of new contracts extending the valuation dates of two variable prepaid forward contracts. Following an appeal by the Commissioner of Internal Revenue, the Second Circuit Court of Appeals issued a ruling in September 2018 reversing the United States Tax Court’s prior ruling in favor of the Petitioner, and remanding the case for (1) determination of whether the termination of obligations that occurred when the new contracts were executed resulted in taxable short-term capital gains, and (2) calculation of the amount of long-term capital gains that resulted from the constructive sales

of the collateralized shares. In reaching this ruling the appellate court conducted a de novo review of the stipulated record and relied on the report of Compass Lexecon Affiliate Professor Hendrik Bessembinder, which is cited extensively in the appellate court's opinion.

David Ross and Kevin Hartt in Compass Lexecon's Chicago office assisted Professor Bessembinder in the preparation of his report. We were retained by counsel for the Internal Revenue Service and worked close with Steven Balahtsis and Steven Sirotic.

Abertis Infraestructuras Dispute with Argentina

Compass Lexecon experts Marcelo Schoeters and Julián Delamer were retained by Abertis Infraestructuras S.A. (Claimants), a toll concession operator, as quantum experts in an ICSID arbitration against the Government of Argentina. Mr. Schoeters and Mr. Delamer filed an expert report quantifying damages in excess of US\$1 billion. Claimants successfully settled the case, withdrawing the claim in exchange for the renegotiation and extension of the concession contracts.

The dispute arose from claims related to the mandatory conversion and freeze of toll tariffs imposed by the Government of Argentina (the "Measures"), which affected two Argentine road concessions, Autopistas del Sol S.A. (Ausol) and Grupo Concesionario del Oeste S.A. (GCO), in which Abertis holds shareholding interests. Toll tariffs, which were initially set in U.S. dollars and indexed to U.S. inflation, were converted into Argentine pesos following Argentina's 2002 financial crisis and subject only to discretionary adjustments thereafter.

Mr. Schoeters' and Mr. Delamer's expert report detailed the effects of the Measures on Ausol, GCO and Abertis, quantifying the damage to the concessionaires and their shareholder, including an analysis of how the outstanding financial debt would have evolved had there been no Measures. Approximately 18 months after filing, Abertis reached a successful agreement with Argentina which included the renegotiation and extension of both concession contracts in exchange for Abertis's withdrawal of the ICSID claim.

Mr. Schoeters and Mr. Delamer were supported by a Compass Lexecon team led by Andrés Casserly. Claimants were represented by Nigel Blackaby, Noiana Marigo and Gustavo Topalian of Freshfields Bruckhaus Deringer LLP.

JM Eagle Damages Trial

JM Eagle is a large manufacturer of PVC pipe which sells pipe to municipalities and other governmental entities around the country. The recent damages trial against JM Eagle was preceded by a liability trial where JM Eagle was found liable by a jury for making false representations about whether its pipe was manufactured or tested in a manner that assured it uniformly met industry standards. As a result of the adverse jury finding on liability, Plaintiffs claimed that JM Eagle faced "potentially billions of dollars in damages."

During the subsequent damages trial, five exemplar Plaintiffs sought to prove damages. For this phase of the case, JM Eagle retained Paul, Weiss, Rifkind, Wharton & Garrison LLP, who in turn retained Compass Lexecon and our President Professor Daniel Fischel to provide expert testimony on damages and rebut Plaintiffs' expert's opinions. A 22-day damages trial before Judge George H. Wu in the Central District of California was held and the jury was told and instructed about the adverse liability finding against JM Eagle.

Professor Fischel testified that the damages model advanced by Plaintiffs' expert was fatally flawed for several reasons, including that it was based on a framework divorced from actual market conditions and that it relied on unrepresentative data, causing it to overstate substantially the expected number of pipe failures. As a result, Professor Fischel concluded that Plaintiffs' expert's damages model failed to show the existence of any damages because it was so lacking in credibility.

After closing arguments and instructions, the jury deliberated for a week until the judge determined they were deadlocked and declared a mistrial. As a result, the exemplar Plaintiffs were awarded no damages. The jury's refusal to award any damages was described in the press as "surprising" and a huge victory for JM Eagle, particularly in light of the jury's awareness of the adverse liability finding in the earlier trial.

Professor Fischel was supported by Dr. Todd Kendall and Dr. Colleen Loughlin in Compass Lexecon's Chicago office. JM Eagle was successfully represented in the damages trial by David Bernick, Jaren Janghorbani, and Erin Morgan of Paul, Weiss, Rifkind, Wharton & Garrison LLP.

Integra LifeSciences Holdings Corp Acquisition of Johnson & Johnson's Codman Neuro Division

In February 2017, Integra LifeSciences agreed to buy Johnson & Johnson's global neurosurgery business – branded Codman – for more than \$1 billion. Both Integra and Codman are leading suppliers of neurosurgical products in the United States, with largely complementary footprints globally. Compass Lexecon was retained globally by counsel for Integra to evaluate the competitive effects of the proposed transaction on numerous products within the companies' portfolios. Compass Lexecon assisted with white papers, submissions and presentations to various competition authorities providing empirical analyses on numerous topics, including diversions, the importance of specific product features for current and future competition, market share trends, and the extent of customer overlap. On September 27, 2017, the U.S. Federal Trade Commission provided regulatory approval for the transaction, with limited divestitures, completing the successful global competition review process.

The global approval process was accomplished with collaboration between Compass Lexecon economists and Latham & Watkins LLP legal teams based in both the U.S. and Europe. A Compass Lexecon team headed by Jonathan Orszag, Colleen Loughlin and Daniel Stone assisted Integra LifeSciences' General Counsel Richard Gorelick, and outside counsel led by E. Marcellus Williamson, Amanda Reeves and Patrick English of Latham & Watkins LLP, in gaining regulatory approval in the U.S. In Europe, a Compass Lexecon team headed by Neil Dryden, Daniel Westrik and Abbas Mohsin worked closely with a Europe-based Latham & Watkins LLP team led by John Colahan, Héctor Armengod and Calum Warren to obtain regulatory approvals in ex-U.S. jurisdictions.

Merger of Entercom with CBS Radio

In February 2017, CBS Radio and Entercom announced a merger to create one of the largest radio platforms in the United States. The companies own and operate a combined 235 broadcast radio stations throughout the United States, including in 22 of the top 25 radio markets. A Compass Lexecon team provided economic and econometric analysis in support of

the transaction, demonstrating the wide array of competitive constraints facing modern broadcast radio stations, and, relatedly, the limited extent to which Entercom and CBS Radio currently constrain each other. On November 1, 2017, the companies reached a favorable settlement with the U.S. Department of Justice requiring divestitures in three markets. The Compass Lexecon team was led by Jonathan Orszag and Loren Smith, and included Chris Rybak, Josephine Xu, Bo Bourke, Kelly Dickson, and Jonathan Kroah. Compass Lexecon worked closely with a legal team from Latham & Watkins LLP that was led by E. Marcellus Williamson, Amanda Reeves and Kelly Smith Fayne, as well as with senior executives at Entercom, including Andrew Sutor and Pat Cunnane.

Itron Acquisition of Silver Spring Networks

In September 2017, Itron, Inc., the world's leading provider of smart metering, data collection and utility software systems with nearly 8,000 utilities worldwide relying on its technology, entered into an agreement to acquire Silver Spring Networks. Silver Spring Networks is a leading smart grid solution company that provides the hardware, software and services that allow utilities to deploy and run multiple advanced solutions to achieve operational efficiencies, including smart metering, demand response, and distribution automation. The transaction is valued at approximately \$830 million. In December 2017, the Federal Trade Commission (FTC) unconditionally approved the merger without issuing a Second Request. A Compass Lexecon team led by Jonathan Orszag and Guillermo Israilevich worked closely with Craig Waldman and Peter Julian of Jones Day, and Joanne Lewers of Drinker Biddle & Reath LLP to analyze the competitive effects of the proposed acquisition. Compass Lexecon analyzed bid data, company documents and sales data from third-party sources. Compass Lexecon economists concluded that there is robust competition in the relevant utility segments such that numerous well-funded network and smart meter providers compete head-to-head with the merging parties, before taking into account the synergies that would arise from the parties' complementary assets and services. The Compass Lexecon team in our Washington, DC office included Michael Matelis, Piyal Hyder and Sahdia Khan.

Maple Leaf Foods' Acquisition of Field Roast Grain Meat Co.

In November 2017, Maple Leaf Foods Inc., which owns the Lightlife brand as well as other products, agreed to purchase Field Roast Grain Meat Company, SPC. Lightlife and Field Roast are two leading plant-based protein brands in the United States and Canada. A Compass Lexecon team provided economic and econometric analysis in support of the transaction, providing evidence on the lack of significant competition between the merging parties' brands, the willingness of consumers to substitute not only to other brands but also across product categories and the ease with which retailers can enter the market with their own private label offerings. After engaging with antitrust authorities in the U.S., Maple Leaf Foods obtained full clearance in January 2018. The Washington, DC-based Compass Lexecon team was led by Loren Smith and included Chris Rybak and Gloriana Alvarez. Compass Lexecon worked closely with a legal team from Simpson Thacher & Bartlett LLP that was led by Andrew Lacy, Peter Herrick and Andrew Hasty.

Agilent Technologies Acquisition of Advanced Analytical Technologies, Inc.

In March 2018, Agilent Technologies announced plans to acquire Advanced Analytical Technologies, Inc. (AATI). Both Agilent and AATI sell products that analyze the quality and quantity of nucleic acid fragments. A Compass Lexecon team provided economic analysis in support of the transaction, providing evidence that the two parties generally sold to different sets of customers, that pricing by the parties did not depend on competition with each other, and that the parties' prices were constrained by a myriad of other options available to their customers. After engaging with antitrust authorities, Agilent Technologies obtained U.S. clearance in May 2018. The Washington, DC-based Compass Lexecon team was led by Bryan Keating and included Chris Rybak, Alyson Matthews and John Hassett. Compass Lexecon worked closely with a legal team from Cleary Gottlieb Steen & Hamilton LLP that was led by Mark Nelson, Grant Bermann, Karen O'Neill Ocasio and Jeanne-Paloma Zelmati.

TopBuild Corp.'s Acquisition of United Subcontractors Inc.

Compass Lexecon was retained by counsel for TopBuild to evaluate the competitive effects of its \$475 million acquisition of United Subcontractors Inc. (USI). The parties owned and operated the #1 and #3 nationwide insulation installation services companies in the U.S., with a combined total of 200 service branch locations. Compass Lexecon analyzed the parties' data on service branches and customer locations to assess competitive overlaps. Compass Lexecon compiled a database of insulation installation competitors that was submitted to the FTC, showing the parties faced a substantial number of local competitors in metro areas where TopBuild and USI had one or more service locations that overlapped. The FTC cleared the transaction without conditions without a second request. The Compass Lexecon team was led by Drs. Mary Coleman and Aren Megerdichian and also included Matthew Krietzberg, Runbo Li, Evan Thompson, and Rob Foley. Compass Lexecon worked closely with counsel representing TopBuild Corp., including Stephen Pepper and Rebecca Tracy Rotem of Greenberg Traurig, LLP, as well as counsel representing USI, including Adam DiVincenzo and Stephanie Pearl of Gibson, Dunn & Crutcher LLP.

Mars Incorporated's Acquisition of VCA Inc.

Compass Lexecon was retained by counsel for Mars Incorporated to evaluate the competitive effects of its \$9 billion acquisition of VCA Inc. The parties owned and operated the two largest veterinary hospital chains in the U.S., with a combined total of 1,900 hospitals operating under brands including VCA, Banfield, and BluePearl. We conducted extensive competitive analyses to assess potential unilateral effects arising where the parties' general practice, specialty and emergency veterinary hospitals were in close geographic proximity to one another. We made a number of presentations and submissions to the Federal Trade Commission showing: (1) lack of competitive harm with regard to general practice veterinary hospitals due to the presence of a substantial number of competitors anywhere there were geographic overlaps, and (2) lack of competitive harm in several metropolitan areas where the parties had emergency and specialty hospitals that were in close proximity to each other. The FTC cleared the transaction in August 2017 with divestitures of 12 emergency and specialty hospitals.

The Compass Lexecon experts were Drs. Mary Coleman and Mark Israel and their team was led by Aren Megerdichian, and included Christopher Fasel, Matthew Krietzberg, Runbo Li and Evan Thompson, with additional support from Maria Stoyadinova and Prerana Nanda. Compass Lexecon worked closely with counsel representing Mars Incorporated, including Clifford Aronson, Michael Sheerin, and Kristen Spitaletta of Skadden, Arps, Slate, Meagher & Flom and William Díaz of McDermott Will & Emery, as well as counsel representing VCA Inc., including Paul Hewitt and Corey Roush of Akin Gump Strauss Hauer & Feld LLP.

7-Eleven, Inc./Sunoco LP Transaction

Compass Lexecon was retained by Sunoco LP and its outside counsel, Billy Vigdor from Vinson & Elkins LLP, in securing required regulatory approval from the Federal Trade Commission in the acquisition of approximately 1,100 Sunoco LP retail fuel outlets by 7-Eleven's parent company Seven & i Holdings Co., Ltd. The process culminated in the final approval of the acquisition, conditional on the divestiture of 59 outlets.

The transaction was first announced in April 2017. Between June and September of 2017, Compass Lexecon assisted with the analysis of the competitive effects from the transaction, focusing on the competitive conditions and competitor presence in specific geographic areas across the mid-Atlantic, Southeast, and Gulf Coast regions. Compass Lexecon's analysis found that only a limited number of local markets and metropolitan areas would have few competitive alternatives post-transaction – a finding confirmed by FTC's limited divestiture requirement and ultimate approval of the transaction. Compass Lexecon also assisted with Sunoco LP's response to FTC's Second Request. Compass Lexecon also assisted in identifying divestitures that would likely satisfy the FTC.

In January 2018, the FTC agreed to settle its charges conditional on the divestiture of 59 retail fuel outlets. Of the 59 outlets, 33 were Sunoco locations that stayed with the company instead of being transferred to 7-Eleven, and 26 were sold by 7-Eleven to Sunoco. After a two-month public comment period, the final order settling FTC's charges against the acquisition was approved at the end of March 2018.

The Compass Lexecon team was led by Mary Coleman, Kenneth Grant and David Molin in the Boston office and Maria Stoyadinova, Prerana Nanda and Sahdia Khan in the Washington, DC office and included Anh Dao, Saikun Shi, Emmy Brody, Carlos Paez, and Caroline Corbally.

Cofigeo/William Saurin Combination

In June 2018, the French competition authority has authorized the acquisition by Cofigeo of the prepared meal activity of William Saurin, subject to an injunction to divest one brand and production capacity, after an in-depth, phase II investigation. This merger involved the two main producers of French, Italian and exotic meals. Compass has been mandated by Cofigeo to assess the competitive effects of the transaction. We have submitted a merger simulation analysis, which has been largely relied upon by the French competition authority in its assessment of the unilateral effects of the transaction, showing in particular the lack of material effects on the French prepared meal segment. We have also contributed to the assessment of the failing firm argument, raised because the target was on the verge of bankruptcy before being acquired, by showing that absent the merger, the market structure would not have remained as competitive as it was pre-merger. The Compass Lexecon team, comprising David Sevy, Enrique Andreu,

Guillaume Duquesne, Scott Holbrook, Jaime Coronado and Hyung-Joong Kim, worked alongside Stéphane Hautbourg, Laurent Godfroid and Ségolène Pelsy from Gide Loyrette Nouel.

EDF/Areva (New NP Subsidiary) Transaction

Compass Lexecon provided economic support to EDF in the context of EDF's proposed takeover of New NP, a 100% subsidiary of Areva NV which houses Areva Group's nuclear reactors business. We evaluated the potential for vertical foreclosure of the transaction in the market for nuclear fuel as Areva is one of the two main nuclear fuel suppliers to EDF. The European Commission found that despite the vertical relationships between the two companies, the merged entity was unlikely to engage in foreclosure strategies, either because it did not have the incentive or the ability to do so. It approved the transaction in May 2017 after a Phase I investigation without any need for remedies. Our work was pivotal in that respect, especially with regard to the merged entity's ability to foreclosure, as the investigation was likely to either result in heavy remedies or in a Phase II investigation. The Compass Lexecon team consisting of Fabien Roques, Xavier Boutin, and Guillaume Duquesne worked with the EDF team led by Philippe Alquié, a team from Freshfields Bruckhaus Deringer LLP led by Jérôme Philippe and a team from Bredin Prat led by Guillaume Fabre.

Class Action and Arbitrations Involving Archstone

In August 2017, Judge William Martinez of the United States District Court for the District of Colorado granted Archstone's motions for summary judgment and ordered the entry of a final judgment in favor of Archstone terminating the case. The decision ended 10 years of litigation and avoided \$4 billion of potential liability. Archstone was successfully represented throughout by Jonathan Polkes and Caroline Zalka of Weil, Gotshal & Manges LLP.

In late 2007, a group of investors in Archstone, a real estate investment trust, attempted to bring a class action alleging that Archstone breached agreements with class members in the course of implementing a leveraged buy-out. Prior to the buy-out, these investors, and other purported class members, (Unitholders) received common units of Archstone in exchange for property contributed to the real estate investment trust. In the leveraged buy-out, Archstone gave Unitholders a choice between exchanging their units for preferred units or cash.

In two arbitrations, claimants alleged that the choice they were offered was illusory because the preferred units were so economically inferior that they provided no reasonable alternative to the cash option. Claimants argued they were thereby forced to take cash and realize significant capital gains and they were damaged for this reason among others as a result. Compass Lexecon and its President Professor Daniel Fischel, were retained to analyze the effect of the leveraged buyout and the choice given to Unitholders. In testimony and reports in these arbitrations, Professor Fischel strongly criticized Claimants and their experts for ignoring attributes of the preferred units that were superior to the common units and demonstrated that the terms of the leveraged buyout not only did not harm Unitholders but rather provided them with a windfall. The arbitrators then ruled for Archstone in both instances and rejected the Unitholders' claims in their entirety. A third arbitration ended in a favorable settlement for Archstone.

After filing an amended complaint, the investors then pressed their case for class certification before Judge William Martinez. An expert for the group of investors filed a report purporting to show how damages could be calculated for class members using a common

methodology and that total damages ranged from \$1.2 billion to \$2.7 billion. Professor Fischel filed a report on behalf of the Defendants explaining that the Unitholders' expert did not reliably measure damages because he relied on numerous assumptions that were contrary to the economic evidence. Judge Martinez agreed, ruling that the opposing expert's "estimates turn on several momentous assumptions, to the point where there can be no confidence that his final figures are anywhere close to the harm the Class allegedly suffered." Judge Martinez certified the class with respect to liability only. Archstone then filed motions for summary judgment on liability, which Judge Martinez granted, terminating the case. The result was a complete victory for Archstone.

Professor Fischel was supported by a team in Compass Lexecon's Chicago office including Jerry Lumer, David Ross, Jessica Mandel, Elizabeth Wall and Laura Yergesheva.

T-Mobile NL Acquisition of Tele2 NL

Following a Phase-II investigation, the European Commission (EC) unconditionally cleared the acquisition by T-Mobile NL, the Netherlands' third largest mobile network operator (MNO), of its smaller rival Tele2 NL. The EC's decision marks the first unconditional clearance of a 4-to-3 merger between MNOs since the start of the industry consolidation wave in 2012.

Compass Lexecon experts advised Deutsche Telekom and T-Mobile NL during the merger control proceedings. They developed and presented to the EC a number of economic analyses to assess the likelihood of unilateral effects in the mobile retail market (the EC's main focus of concern) and merger-specific efficiencies. *Inter alia*, they prepared a merger simulation analysis that took into account the competitive interaction between mobile-only tariffs and multiple-play products, as well as the cost and quality efficiencies generated by the transaction.

The Compass Lexecon team included Enrique Andreu, Miguel de la Mano, Thilo Klein, and Alejandro Requejo, assisted by Francisco Franchetti, Scott Holbrook, Patricia Lorenzo, and Cecilia Nardini. Compass Lexecon worked alongside Mark Powell, Kasia Czapracka, and Alexandra Rogers of White & Case LLP.

TD Ameritrade Securities Litigation

In this case, Plaintiffs alleged that TD Ameritrade Futures & Forex LLC (TDAFF) engaged in fraud and acted in a recklessly and commercially unreasonable manner by liquidating putative class members' deep out-of-the-money short put options on the E-mini S&P500[®] futures contract during the evening trading session on February 5, 2018. Compass Lexecon Senior Affiliate Dr. Christopher Culp testified that Plaintiffs' experts failed to substantiate their opinions (i) that the evening trading session on that particular day was "riskier" than the afternoon trading session, or (ii) that TDAFF's decision to liquidate certain customers' positions during the evening trading was commercially unreasonable. On December 17, 2018, Hon. Cecilia M. Altonaga of the U.S. District Court in the Southern District of Florida denied Plaintiffs' motion for the certification of the proposed class.

Specifically, on the afternoon of February 5th and the morning of February 6th, the S&P500[®] and CME Group's E-mini S&P500[®] futures experienced unprecedented price declines, which resulted in extreme price volatility. As a result, customers who traded on their own behalf experienced losses on short put options in those contracts. In its capacity as a futures commission

merchant, TDAFF was obliged to guarantee the payment obligations of its customers. As such, when mark-to-market losses on certain of its customers' short put option positions began to exceed customers' margin on deposit and account equity balances, TDAFF liquidated those customers' open positions.

Plaintiffs proposed a class of TDAFF customers whose short S&P500[®] E-mini put options were liquidated specifically in the evening trading session, which Plaintiffs and their experts contended was inherently riskier and less liquid than the CME's regular daytime trading hours. Dr. Culp submitted a detailed empirical report and testified that the Plaintiffs' experts erred in their analyses and/or provided inadequate (or no) substantive support for their opinions. Dr. Culp testified that, contrary to the allegations of Plaintiffs and their experts, volume was lower and bid-ask spreads were higher for many put options during the regular afternoon trading session on February 5th vis-à-vis the evening session.

Dr. Culp further opined that Plaintiffs' experts never addressed the numerous issues pertaining to individualized inquiries that would be required for class certification. Judge Altonaga agreed and concluded that “[i]ndividual issues predominate over common issues” and that “class action treatment is not a superior method for adjudication of this controversy” and denied Plaintiffs' motion for class certification.

Dr. Culp was supported by a Chicago- and Washington, DC-based Compass Lexecon team led by Senior Managing Director Adel Turki and Compass Lexecon Affiliate Andrea Neves. The team also included Mihir Gokhale, Joseph Goodman, Donald Hong, Andria van der Merwe, Bettina Stärkle, Elizabeth Wall and Laura Yergesheva. Dr. Culp and Compass Lexecon were engaged by Richard Morvillo and Robert Stern in the Washington, DC, office of Orrick, Herrington & Sutcliffe LLP on behalf of TDAFF.

Merger of Long-Haul Freight Locomotive Manufacturers

In May 2018, Wabtec Corporation, a manufacturer of railroad components, announced plans to acquire General Electric's Transportation division, which manufactures locomotives and other transportation products, for \$11 billion. Compass Lexecon experts Jonathan Orszag and Daniel O'Brien were retained by counsel for Wabtec and GE Transportation to provide economic analysis concerning the merger and to assist the companies with the U.S. Department of Justice's review of the deal. Wabtec is the largest supplier of components used to manufacture long-haul freight locomotives, and GE Transportation is one of two manufacturers of long-haul freight locomotives in the United States. Compass Lexecon provided economic analysis showing that the merger does not raise significant vertical foreclosure concerns in the market for long-haul locomotives because locomotive manufacturers have credible threats to seek alternative sources of supply for locomotive components. The Compass Lexecon team based in Washington, DC also included John Hore, Rodrigo Montes, Alyson Matthews and John Hassett. Compass Lexecon worked closely with Wabtec's outside counsel, Jones Day, led by Craig Waldman, Jeremy Morrison and Peter Julian, and GE Transportation's outside counsel, Arnold & Porter Kaye Scholer LLP, led by Jonathan Gleklen, Matthew Shultz and Emily Blackburn.

Cardtronics/DC Payments Merger

In September 2017, the UK Competition and Markets Authority (CMA) unconditionally approved, after a Phase II investigation, the merger between Cardtronics and DC Payments, both

active in the provision of ATMs and related services in the United Kingdom. Compass Lexecon assisted Cardtronics during the merger filings. In particular, we analysed the incentives for the merged entity to raise prices following the merger, concluding these were very limited. The Compass Lexecon team led by Neil Dryden included Abbas Mohsin and Ferenc Peto. Enrique Andreu also led quantitative analyses, assisted by Scott Holbrook and Daniel Westrik. They worked with Ross McKenzie, David Wirth, Donald Mackintosh and Laura Carter from Ashurst LLP.

CFTC’s Action Against Monex

On May 1, 2018, U.S. District Court Judge James V. Selna entered an order dismissing the Commodity Futures Trading Commission’s claims against Monex Deposit Company, Monex Credit Company, Newport Services Corporation (collectively “Monex”), and its principals, Michael Carabini, and Lewis Carabini. Monex is a metals brokerage firm and the CFTC had filed suit against defendants alleging four causes of action for (1) off-exchange transactions in violation of CEA § 4(a), 7 U.S.C. § 6(a); (2) fraud in violation of CEA § 4b(a)(2)(A), 7 U.S.C. § 6b(a)(2)(A), (C); (3) fraud in violation of CEA § 6(c)(1) and Regulation 180.1(a)(1)–(3), 7 U.S.C. § 9(1) and 17 C.F.R. § 180(a)(1)–(3); and (4) violation of CEA § 4d for failure to register with respect to financed transactions. The CFTC also filed a motion for preliminary injunction pursuant to Section 6c(a) of the Commodity Exchange Act (“CEA”), which the Court dismissed as moot.

We were retained by counsel for the Defendants and David Ross, an Executive Vice President of Compass Lexecon, submitted a declaration in opposition to the CFTC’s preliminary injunction motion. Sam Hollander, Jonathan Polonsky and Yili Wang assisted Mr. Ross. Monex and its principals are represented by Neil A. Goteiner, Jessica K. Nall and C. Brandon Wisoff of Farella Braun & Martel LLP.

Plan of Distribution for ISDAfix Manipulation Case

U.S. District Judge Jesse Furman approved the Plan of Distribution for the \$408.5 million settlement in the ISDAfix Manipulation case, in which Plaintiffs allege that Defendants manipulated the ISDAfix benchmark rates, which are used in the settlement of a variety of derivative instruments, including cash-settled swaptions and constant maturity swaps. The Plan of Distribution was created by a Compass Lexecon team led by Chris Fiore and Hans-Jürgen Petersen of Compass Lexecon’s New York office, which included Mihir Gokhale, Monica Xie, Diana Turbayne, and Omotoke Paul-Lawal. The team worked closely with Dan Brockett, Jeremy Andersen and Toby Futter of Quinn Emanuel Urquhart & Sullivan, LLP, Julie Kearns and Hal Cunningham of Scott & Scott LLP, and Brian O’Mara and David Mitchell of Robbins Geller Rudman & Dowd LLP. Chris Fiore submitted a written declaration to the court describing the Plan, and also explained the details of the Plan to Judge Furman at the fairness hearing.

HONORS, PUBLICATIONS AND PRESENTATIONS

- Amy Affelt published “Big Data, Big Opportunity for Librarians and Information Professionals,” in *The Emerald Handbook of Modern Information Management*, December 2017; “How Information Skills Make A Difference to Data Analytics,” *Jinfo*, December 2017; “Fake News: The Library Imperative,” in *The Library and Book Trade Almanac*, June 2018;

and “Artificial Intelligence and Online Searching,” in *Online Searcher Magazine*, July/August 2018. She also writes “The Accidental Data Scientist” column for *EContent Magazine*. Affelt presented “Finding Facts in the Alternative World: Only Librarians Know For Sure” and “Big Data, Big Role for Info Pros” at the Special Libraries Association Annual Conference, Phoenix, AZ, June 2017; “Internet Search Privacy Tips & Tricks” and “Big Data Still Rules” at the Internet Librarian Conference, Monterey, CA, October 2017; “Finding Facts in the Alternative World” at the Computers In Libraries Conference, Washington, D.C., April 2018; and “Cementing Value: Building Relationships” at the SLA Annual Conference, Baltimore, June 2018.

- Enrique Andreu and Jorge Padilla presented their article “Quantifying horizontal merger efficiencies in multi-sided markets: An application to stock exchange mergers” to the OECD. The article was included in the 2018 OECD report “Rethinking Antitrust Tools for Multi-Sided Platforms.”
- Two valuation articles written by Clifford Ang were the highest rated articles of 2017 in the National Association of Certified Valuators and Analysts (NACVA) QuickRead; “Why We Shouldn’t Add a Size Premium to the CAPM Cost of Equity” and “Estimating Debt Betas and Beta Unlevering Formulas.” Ang’s paper, “The Absence of a Size Effect Relevant to the Cost of Equity,” also was published in the Fall 2018 issue of *Business Valuation Review*, as was his article “Why You May Want to Consider Cash-Adjusting CAPM Betas,” in the Bloomberg CFA Blog, June 2018. Ang presented “Financial Modeling: Enhance Excel by Programming in R,” for Business Valuation Resources’ *Special Series on Advanced Modeling and Methodologies*, June 2018.
- Hendrik Bessembinder published “Characteristic-Based Benchmark Returns and Corporate Events,” written with Michael Cooper and Feng Zhang, in the *Review of Financial Studies*, January 2019; “Do stocks outperform Treasury bills?” in the *Journal of Financial Economics*, September 2018; “Capital Commitment and Illiquidity in Corporate Bonds,” written with Stacey Jacobsen, William Maxwell and Kumar Venkataraman, in the *Journal of Finance*, August 2018; and “The ‘Roll Yield’ Myth,” in *Financial Analysts Journal*, during the second quarter of 2018.
- Xavier Boutin and Georg Clemens argue that the concept of “big data” is much broader than the classifications provided by competition authorities in their report “Big But Not Insurmountable? How The Definition of ‘Big Data’ Can Help In The Assessment Of Entry,” January 2018.
- Dennis Carlton delivered the 2018 William Howard Taft Lecture on the Supreme Court’s paradigm-shifting opinion in *Ohio v. American Express* to the New York Bar Association on September 2018. In the same month, Carlton testified about the evidence on the rise of market power and its relation to antitrust at the FTC Competition and Consumer Protection Hearings, “The State of U.S. Antitrust Law.” Carlton also gave the Competition Policy Keynote Lecture, entitled “How Transaction Costs Should Influence Competition Policy and Our Economic Models,” at the 13th CRESSE International Conference on “Advances in the Analysis of Competition Policy and Regulation,” June 2018 in Crete, Greece. At the conference, Carlton also presented an analysis of the evidence on increasing market concentration and appeared on a panel discussing two-sided markets. He was also a panelist in *Antitrust Magazine*’s “Roundtable with Economists: Discussing Practice and Theory with the Experts,” Spring 2018. In May 2018, the *Journal of Law and Economics* published his article with Ralph Winter, “Vertical Most-Favored-Nation Restraints and Credit Card No-Surcharge Rules,”

which examines the increasing use of various contractual provisions that affect pricing of competitors such as price parity provisions and no-surcharge rules. The article explains what economic theory predicts the effects of these contractual provisions should be and discusses critically the Supreme Court's decision in *Ohio v. American Express*.

- Joseph Cavicchi published “Rethinking Government Subsidies for Renewable Electricity Generation Resources” in *The Electricity Journal*, July 2017, which focused on the impact of renewable resource subsidization programs on power markets in the U.S. The article concludes that the impending growth of renewable resources calls for a more thoughtful examination of the impact of subsidization program design on wholesale power markets.
- Joseph Cavicchi and Kenneth Grant provided an expert analysis to *Law360* entitled “The Future of State-Subsidized Electric Generation Resources,” August 2018. Cavicchi also co-authored “Growing Evidence of Increased Frequency of Negative Electricity Prices in U.S. Wholesale Electricity Markets,” with Maheen Bajwa, which was published in the International Association for Energy Economics 4th Quarter 2017 Energy Forum newsletter.
- Bradford Cornell wrote *The Conceptual Foundations of Investing: A Short Book of Need-to-Know Essentials* with Andrew and Shaun Cornell. It was published September 2018 by John Wiley & Sons, Inc. Bradford also published “Can Private Equity Firms Pay Fair Value for Acquisitions?” with Richard Gerger in the *Journal of Private Equity*, Fall 2018; “Do Valuation Multiples Reflect a Size Effect?” with Rajiv Gokhale in the *Journal of Business Valuation and Economic Loss Analysis*, February 2018; “Information Flow and Expected Inflation: An Empirical Analysis”, in *The Journal of Investing*, Winter 2017; and “Does Past Performance Matter in Investment Manager Selection?”, co-authored with Jason Hsu and David Nanigian in the *Journal of Portfolio Management*, Summer 2017, which was recognized by II Journals as one of its Outstanding Articles from 2017.
- Senior Affiliate Christopher Culp, Senior Vice President Andria van der Merwe and Senior Economist Bettina Stärkle published their book, *Credit Default Swaps: Mechanics and Empirical Evidence on Benefits, Costs, and Inter-Market Relations*, as the first title in the Palgrave Studies in Risk and Insurance series. Unique in its composition, *Credit Default Swaps* reviews academic empirical literature on how CDSs work in practice, including during distressed times of market crises. It also discusses the mechanics of single-name and index CDSs, the theoretical costs and benefits of CDSs, as well as comprehensively summarizes the empirical evidence on important aspects of these instruments of risk transfer. The three also authored “Credit Risk Transfer with Single-Name Credit Default Swaps,” in *The Palgrave Handbook of Unconventional Risk Transfer*, Palgrave Macmillan, 2017.
- Drs. Culp and van der Merwe each made a presentation in June 2018 at the Swiss Re Corporate Solutions 8th Annual Weather and Energy Conference in Munich. Dr. Culp was the keynote speaker and gave a talk entitled “To Hedge or Not to Hedge? Applications to Weather Risk”. Dr. van der Merwe participated in a Blockchain panel. She discussed “Blockchain Technology and Implications and Chances for the Energy Markets”. The conference was attended by about 100 executives from Swiss Re's major energy and weather clients located around the world.
- Dr. Culp co-authored “Shadow Banking, Risk Transfer, and Financial Stability,” with Compass Lexecon Affiliate Andrea Neves, in the *Journal of Applied Corporate Finance*, Fall 2017; and “Option-Based Credit Spreads,” with Yoshio Nozawa and Pietro Veronesi in *American Economic Review*, February 2018. Culp also contributed three entries to *The SAGE*

- Encyclopedia of Business Ethics and Society*, second edition, March 2018. His entries are entitled “Adverse Selection,” “Reinsurance and Retrocession” and “Shadow Banking,” the lattermost of which was co-authored with Andrea Neves. Additionally, Culp discussed “The Dodd-Frank Title VII Clearing Mandate: False Hopes and Undelivered Promises?” at the Competitive Enterprise Institute’s New York Luncheon, April 2018.
- Robert Daines published “Right on Schedule: CEO Option Grants and Opportunism,” in the *Journal of Financial and Quantitative Analysis*, June 2018, with Grant McQueen and Robert Schonlau.
 - Miguel de la Mano participated in several conferences, including the 2nd annual Innovation Economics for Antitrust Lawyers Conference, February 2018, organized by *Concurrences Review*. At the conference, Miguel discussed the consumer benefits as well as risks related to Open Banking, a standard format of third-party access to banking data that works via APIs.
 - Guillaume Duquesne, Soledad Pereiras, David Sevy and Elena Zoido wrote the Expert Opinion “When Information Is Not (Market) Power: Using Quantitative Techniques to Show That Information Exchange Did Not Facilitate Collusion,” which was shared with clients in December 2017.
 - Kirsten Edwards-Warren participated in the 2nd annual Innovation Economics for Antitrust Lawyers Conference, February 2018, organized by *Concurrences Review*. At the conference, Kirsten spoke on the topic of algorithms and artificial intelligence in the context of cartel discovery, using ten recent EC and ten recent UK cartels as case studies.
 - Daniel Fischel, Christopher Fiore and Todd Kendall released a study on “Fossil Fuel Divestment and Public Pension Funds” in June 2017 on behalf of the Independent Petroleum Association of America. The study can be accessed at: http://divestmentfacts.com/wp-content/uploads/2017/06/Divestment-and-Public-Pension-Funds_FINAL.pdf.
 - Richard Friberg published “Market stealing and market expansion: an examination of product introductions in the organic coffee market,” with Mark Sanctuary in *Environmental Economics and Policy Studies*, April 2018; “Risk and ambiguity in 10-Ks: An examination of cash holding and derivatives use,” with Thomas Seiler in the *Journal of Corporate Finance*, August 2017; and contributed the chapter “A Theoretical Perspective on Risk Management,” to *The Palgrave Handbook of Unconventional Risk Transfer*, 2017.
 - Christopher Garmon published “The accuracy of hospital merger screening methods,” in the *RAND Journal of Economics*, Winter 2017.
 - Kenneth Grant and Charles Augustine published “Trump Energy Policy and the OCS: Energy Dominance or Business as Usual?” in the American Bar Association’s Section of Environment, Energy, and Resources June 2018 committee newsletter. Grant was also a contributing author to the Energy Bar Association’s “Report of the Electricity Committee”, which appeared in the May 2018 edition of the *Energy Law Journal*.
 - Margaret Guerin-Calvert presented “Protecting Brand and Distributor Investment on the Internet,” at the 66th ABA’s Section of Antitrust Law Spring Meeting, April 2018.
 - Urs Haegler provided an expert opinion in the briefing “Deutsche Börse/London Stock Exchange: Assessing the European Commission's foreclosure concerns,” which was shared with clients in April 2018.
 - James Heckman wrote, among others, “Chicago Labor Economics,” a commemorative essay included in a special edition of the *Journal of Political Economy* entitled “The Past, Present,

- and Future of Economics: A Celebration of the 125-Year Anniversary of the *JPE* and of Chicago Economics,” December 2017. Additionally, Heckman was invited to lecture on topics spanning skills investments to social mobility in an internationally diverse range of cities and institutions, including the 2018 National Forum on Education Policy in Washington D.C. and the 2018 China Development Forum in Beijing.
- Eric Henson gave a statement to the U.S. House of Representatives, Committee on Natural Resources, *Hearing on HR 215, American Indian Empowerment Act*, October 2017. Henson also published “Discounted Cash Flow Valuation for Oil and Gas Pipelines,” in *Pipeline & Gas Journal*, December 2017.
 - Mark Israel’s article “Are Legacy Airline Mergers Pro- or Anti-Competitive? Evidence from Recent U.S. Airline Mergers,” written with Dennis Carlton, Ian MacSwain and Eugene Orlov, was published in the *International Journal of Industrial Organization*, January 2019. Israel also published “Competitive Effects of International Airline Cooperation,” with Robert Calzaretta and Yair Eilat in the *Journal of Competition Law & Economics*, September 2017; and “Econometrics and Regression Analysis,” with Chris Cavanagh, Paul Denis and Bryan Keating in the ABA’s *Proving Antitrust Damages: Legal and Economic Issues*, third edition, 2017.
 - Mark Israel served as a panelist at *Concurrences Review* and The George Washington University Law School’s sixth Bill Kovacic Antitrust Salon, September 2018; Fordham Competition Law Institute’s Antitrust Economics Workshop, September 2018; and the Georgetown Center for Business and Public Policy’s Airline Competition Conference, July 2017.
 - Sean Iyer published “Conjoint Analysis in Litigation,” in the *Handbook of Marketing Analytics: Methods and Applications in Marketing Management, Public Policy, and Litigation Support* earlier this year with Edward Elgar Publishing. Iyer also spoke at the ABA Antitrust Law Section IP Committee on “Essential Patents and the Agencies – Incentives to Standardize,” March 2018.
 - Joseph Kalt and L. Adel Turki, with Kenneth Grant, Todd Kendall and David Molin, published a study in June 2018 entitled “Political, Social, and Environmental Shareholder Resolutions: Do they Create or Destroy Shareholder Value?” which was commissioned by the National Association of Manufacturers. Their research explores the impact of environmental, social and political resolutions on shareholder value.
 - Bryan Keating presented at a number of conferences, including the Global Competition Review’s Live East Asia Summit in Seoul on “Joint ventures and strategic alliances,” October 2017; Fordham Competition Law Institute’s Antitrust Economics Workshop, September 2017; *Concurrences*, “What is Trump Antitrust? Competition Policy Under A New U.S. Administration,” September 2017; and the Georgetown Center for Business and Public Policy’s Airline Competition Conference, July 2017.
 - Thilo Klein published an article, “A tale of two standards: empirical analyses in EUMR investigations of mergers between mobile network operators,” in *Competition Law & Policy Debate*, November 2017, discussing the European Commission’s double standard of assessment applied in recent mobile telecom merger investigations.
 - Kenneth Lehn published “Limited liability and share transferability: an analysis of California firms, 1920-1940,” with Leonce Barger in the *Journal of Corporate Finance*, June 2017. Lehn also published “Corporate governance, agility, and survival,” in the *International*

Journal of the Economics of Business, February 2018; and “Financing investment spikes in the years surrounding World War I,” with Barger and David Denis, in the *Journal of Financial Economics*, November 2018.

- Aren Megerdichian published “Further Results on Interpreting Coefficients in Regressions with a Logarithmic Dependent Variable,” in the *Journal of Econometric Methods*, January 2018, providing a more complete approach to translating coefficients estimated in logarithmic econometric models into unbiased measures of the effects of interest.
- Rodrigo Montes wrote “The Value of Personal Information in Online Markets with Endogenous Privacy,” with Wilfried Sand-Zantman and Tommaso Valletti, which has been accepted and published online with *Management Science*, May 2018.
- Damien Neven and David Sevy wrote about the consequences of the landmark European Court of Justice judgment in the highly debated Intel matter in “Arrêt Intel: Quelles conséquences pour l’approche économique des abus?” published in *Concurrences Review*, February 2018.
- Damien Neven also published, “Standards of Proofs in Sequential Merger Control Procedures,” with Gregor Langus and Vilen Lipatov in *Concurrences Review*, September 2018; “State Aid Control and Tax Rulings. Is There Really A Competition Issue?” in *Concurrences Review*, November 2017; and “Unwired Planet vs Huawei: A Welcome Clarification of the Concept of FRAND and of the Role of Competition Law Towards SEP Licencing,” with Pierre Régibeau in the *Journal of European Competition Law & Practice*, September 2017.
- Jonathan Orszag, Robert Willig and Bryan Keating published “The Role of the Circle Principle in Market Definition,” in the *Antitrust Source*, April 2018. Orszag moderated at the UCLA Law Entertainment Symposium, March 2018, and served as a panelist at IBRAC’s 24th Annual International Seminar on Competition Law in Sao Paulo, October 2018; the Music Industry Research Association Professional Panel, June 2018; the second edition of Antitrust in the Financial Sector Conference, co-organized by Concurrences, Morgan Lewis and Fordham University, May 2018; and the 66th Antitrust Law Spring Meeting, April 2018.
- Jorge Padilla, John Davies and Aleksandra Boutin wrote a report commissioned by Qualcomm Incorporated entitled “Economic Impact of Technology Standards: The past and the road ahead,” September 2017. Their research has shown that industries based on open technology standards, agreed through voluntary participation in industry bodies, have an impressive record of innovation.
- Jorge Padilla, Damien Neven and Xavier Boutin, provided expert opinions on the consequences of the ECJ’s Intel judgment in “Roundtable Discussion on the ECJ ruling in Intel,” shared with clients in Autumn 2017. Padilla also published “Conventional Power Plants in Liberalized Electricity Markets with Renewable Entry,” with Gerard Llobet in *Energy Journal*, May 2018; “Portfolio Licensing to Makers of Downstream End-User Devices,” with Koren Wong-Ervin in *The Antitrust Bulletin*, September 2017; and one forthcoming article, “Antitrust Analysis Involving Intellectual Property and Standards: Implications from Economics,” with Douglas Ginsburg and Wong-Ervin in the *George Mason Law Review*, 2018.
- Alejandro Requejo Tovar wrote an article, “Can Mere Declarations by a State Be Considered as an Advantage Drawn from State Resources: An Economic Perspective,” included in

European State Aid Law Quarterly's (EstAL) 15th anniversary edited volume, *Milestones in State Aid Case Law: EstAL's First 15 Years in Perspective*, November 2017.

- Daniel Rubinfeld published “IP Privateering in the Markets for Desktop and Mobile Operating Systems,” in the *Berkeley Technology Law Journal*, June 2018; “Scientists as Experts Serving the Court,” with Joe S. Cecil in *Daedalus*, Fall 2018; and “Antitrust for Institutional Investors,” with Edward B. Rock in the *Antitrust Law Journal*, 2018.
- David Sevy spoke at several conferences, including “Big Data et concurrence: quelle importance pour le secteur de la publicité en ligne?” May 2018, and the fifth edition of the annual Global Merger Control Conference, December 2017.
- Allan Shampine published “Understanding the Role of Computing Infrastructure in Economic Analysis in the Changing World of ‘Big Data’,” with Loren Poulsen and Michael Sabor in the *Antitrust Source*, August 2018; “What Is at Stake with Supreme Court Review of *United States v. American Express Co.*?” in the *Antitrust Source*, December 2017; and “Economics of Patents and Standardization: Network Effects, Hold-up, Hold-out, Stacking,” with Timothy Simcoe in *The Cambridge Handbook of Technical Standardization Law*, December 2017. Shampine also contributed to the ABA’s second edition *Telecom Antitrust Handbook*, 2018.
- Joshua Sherman presented his working paper, co-authored with Sandro Shelegia, “Bargaining at Retail Stores: Evidence from Vienna,” at the International Industrial Organization Conference (IIOC), Indianapolis, Indiana, April 2018.
- Andria van der Merwe presented “Economic Analysis of Cryptocurrency as an Alternative Asset Class” at the 85th International Atlantic Economic Conference in London, March 2018.
- David Weiskopf and Mary Coleman contributed “Economic Analysis of Merger Remedies” to Global Competition Review’s *The Guide to Merger Remedies*, August 2018. Weiskopf also organized and moderated the “State-of-the-Art Economic Analysis of Mergers” panel at the 44th Annual Conference on International Antitrust Law and Policy’s Antitrust Economics Workshop, which took place at the Fordham Competition Law Institute, September 2017.
- Glenn Woroch published “From universal service to universal connectivity,” with Jeffrey Macher, John Mayo and Olga Ukhaneva in the *Journal of Regulatory Economics*, August 2017.
- Jason Jianjun Wu published “Subsidizing research programs with ‘if’ and ‘when’ uncertainty in the face of severe informational constraints,” with David Besanko and Jian Tong in the *RAND Journal of Economics*, Summer 2018. Wu was also a panelist at the 4th annual Antitrust in Developing Countries conference, October 2017.

If you would like to find out more details about our work or our experts, please feel free to email or call either of us.

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