JOSHUA WHITE Vice President

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Mr. White is a consulting economist who specializes in applying microeconomics and sophisticated econometric modeling to complex litigation and merger-related questions, primarily in matters involving the health care, financial services, and technology industries. His work across a diverse set of engagements has encompassed simulating consumer demand and switching behavior, analyzing whether intellectual property (IP) licensing rates are FRAND-compliant, and estimating *ex ante* default probabilities for structured investment vehicles. He also has substantial experience developing innovative technological tools for analyzing datasets for merger and competition analyses.

Mr. White has supported both economic and scientific experts addressing competition and intellectual property (IP) issues in matters related to cutting-edge pharmaceutical products. He has supported clients in various jurisdictions and industries in follow-on cartel damages litigation, assessing overcharge, upstream and downstream pass-on, and volume effects.

Mr. White has worked in a number of international jurisdictions and has served as a testifying expert in the UK's Upper Tribunal (Lands Chamber) on competition matters related to restrictive land covenants. He has also given evidence and submissions to the UK's Competition and Markets Authority (CMA) on behalf of clients involved in market investigations and mergers. Mr. White has supported several clients before the European Commission on cartel and merger matters and has provided support to European financial and competition regulators in coordinated conduct investigations. Mr. White has published a number of articles and regularly speaks at international competition law and policy conferences.

EDUCATION

2007 M.A., economics, University of British Columbia
 2003 B.A., socio-political economics, Boston University

2002 Advanced Program in Transition Economics, CERGE, Prague, CZ

EXPERIENCE

2017–Present Analysis Group, Inc.

Vice President

2014–2017 KPMG UK, LLP

Director (2016–2017)

Associate Director (2014–2016)

2007–2014 Analysis Group, Inc.

Senior Economist (2012–2014)

Economist (2007–2011)

2003–2006 Decision Economics Inc.

Research Economist

SELECTED CASEWORK

Antitrust & Competition

Industrial services provider

Competition and Markets Authority

Ongoing support of the target company in the context of a CMA merger investigation. Support includes assessment of relevant markets, evaluation of the likelihood of unilateral horizontal and vertical effects arising from the proposed merger, and identification and quantification of potential remedies packages.

LVMH Moët Hennessy Louis Vuitton/Tiffany

Multiple jurisdictions

Supported LVMH in its global acquisition of Tiffany before the European Commission and other national competition authorities. Support included assessment of relevant product and geographic markets and evaluation of the likelihood of unilateral and coordinated effects.

Confidential commercial dispute

Upper Tribunal (Lands Chamber)

Submitted multiple expert witness statements and served as a testifying expert in a dispute related to the competitive effects of restrictive land covenants. Reports considered the relevant markets of the parties in the dispute, and the strength of prevailing and likely competitive constraints.

Confidential abuse of dominance complaint

Multiple jurisdictions

Currently providing economic support to a company pursuing an abuse of dominance complaint involving a payment system platform. Support includes analyzing switching rates between payment systems assessing relevant markets for various sides of the platform, and determining the extent of market power.

US payment card industry

US Department of Justice

Assisted a testifying expert on behalf of the DOJ in assessing market power and substitutability in the payment card industry. Support included analyzing the impact of steering provisions in the light of network effects on platform adoption and usage.

Private health care market investigation

Competition and Markets Authority and Competition Appeals Tribunal

Provided economic advice to the Healthcare Corporation of America in the context of the CMA's investigation into the UK private health care market. The support, based on complex econometric and data science models, led to the quashing of a CMA ruling at the Competition Appeals Tribunal (CAT), requiring the divestment of £350 million in assets; followed by a complete reversal by the CMA during a remittal investigation.

European medium and heavy trucks cartel

Multiple jurisdictions

Currently providing support to a number of clients potentially pursuing follow-on damages claims in relation to the European Medium and Heavy Trucks Cartel. Support has included early-stage assessment of potential claim value, the identification and extraction of relevant data, the econometric estimation of potential overcharge and pass-on, and assistance in the preparation of claim forms.

Confidential abuse of dominance complaint

European Commission Directorate General for Competition

Ongoing economic and scientific support to a major international biotechnology company in the context of a complaint to the European Commission for abuse of dominance. Support includes assessment of both the relevant markets and the existence of market power, as well as a scientific assessment of novel biotechnologies and whether such technologies were in the public domain.

Confidential follow-on damages claim

Competition Appeals Tribunal

Provided quantitative analysis and strategic support to a testifying expert in the context of a confidential cartel litigation matter before the CAT.

Confidential commercial dispute

Provided economic and econometric support to a testifying expert in the context of a confidential commercial dispute in the petrochemicals sector in North America. Support included the econometric estimation of supply decisions by downstream chemical producers.

Merger in a regulated industrial products industry

European Commission Directorate General for Competition

Provided advice to an acquiring party facing European Commission Directorate General for Competition (DG Comp) review of a proposed transaction. Assisted with the identification, extraction, cleaning, and analysis of relevant sales and bidding data. Constructed econometric models of bidding behavior in response to the number and type of bidders and controlling for regulatory requirements. Assisted with the completion of the Form CO.

Merger in the chlorine bleach industry

US Department of Justice

Assisted a client facing US Department of Justice (DOJ) scrutiny related to an existing joint venture and proposed merger with a competitor. Developed a model of bleach pricing and demand accounting for changes in production technology, changes in the regulatory environment relating to the transportation of hazardous chemicals, and the limited distances bleach can be transported. The merger was cleared with minor restrictions.

Confidential regulatory investigation

Supported a major bank through a regulatory investigation by a European competition regulator into potential collusive conduct in the LIBOR market. Responsible for assessing whether the observed pattern of LIBOR submissions was consistent with collusive conduct.

Confidential regulatory investigation

On behalf of a European financial services regulator, assessed the potential impact from collusive behavior in the foreign exchange market.

Technological products components industry

US Department of Justice, European Commission, Korea Fair Trade Commission
Supported counsel in conducting internal investigations related to allegations of horizontal pricefixing in various jurisdictions. Assisted counsel in preparing leniency statements for the DOJ and DG
Comp as well as in responding to inquiries from multiple governmental entities.

Advanced Micro Devices, Inc. and AMD International Sales and Service, LTD. v. Intel Corporation and Intel Kabushiki Kaisha

US District Court, District of Delaware

Supported consulting and testifying experts in litigation related to claims of anticompetitive behavior including exclusionary conduct and monopolization. Conducted econometric demand analysis to determine factors affecting purchase decisions in the microprocessor industry.

• German Tennis Federation v. ATP Tour, Inc.

US District Court, District of Delaware

On behalf of the German Tennis Federation, supported an academic affiliate in an economic analysis of the liability issues, as well as determining the relevant markets and the degree of market power.

Damages

Confidential biotechnology company arbitration

In the context of a breach of contract arbitration, supported an industry expert to evaluate the market prospects for a novel biologic product in Latin America, and whether the claimant could reasonably be expected to achieve success in commercializing the product at issue.

Intellectual Property

Biotechnology company

Supreme Court of the State of New York

Supported the claimant in litigation relating to the theft of IP for a gene therapy product. Support included estimating the potential revenues associated with the lost commercialization opportunity for the product and estimating damages based on reasonable licensing royalties.

Confidential generic pharmaceutical manufacturer arbitration

In the context of arbitration related to the dissolution of a joint marketing agreement, supported an industry expert in assessing the value of trademarks covered by the agreement. Support included assessing the current and projected future market position for the products covered by the trademarks and estimating the costs associated with launching new products into the UK market.

Conversant Wireless SARL v. LG Electronics France S.A.S

Paris Court of Appeal

Supported an expert in the assessment of proposed portfolio licensing rates and the determination as to whether the proposed licensing rates complied with the FRAND obligations of the licensor. The analysis considered a number of factors, including relative portfolio value, essentially, patent expiration, and differences in portfolio strength for comparable licenses. Support also included critiquing the approaches adopted by the licensor.

• ASUS Computer International v. Interdigital, Inc.

US District Court, Northern District of California

Led the case team supporting a testifying expert in a FRAND royalty case on behalf of a technology company. Support included an assessment of whether the proffered licensing rates were FRAND-

compliant, the assessment of the antitrust impact from non-FRAND royalty rates, the analysis of negotiation history, and a determination of the potential damages from non-FRAND licensing.

■ Amkor Technology, Inc. v. Tessera, Inc.

International Chamber of Commerce, International Court of Arbitration (Case No.166531/VRO Arbitration)

Supported a testifying expert in arbitration related to a patent dispute. Issues included proper calculation of royalties, data availability, and royalty estimation. Additionally, assisted the company with future royalty planning on a consulting basis.

Apple v. Samsung

US District Court, Northern District of California

Supported a testifying expert in the analysis of damages stemming from copyright and patent infringement claims. Conducted econometric demand analysis to determine factors affecting purchase decisions in the mobile telecommunications industry.

Technology company

Supported a testifying expert on behalf of a technology company in assessing the value of specific mobile phone features and evaluating damages originating from patent infringement claims employing a demand estimation model based on eBay auctions.

Mobile phone handset manufacturer

In the context of an IP dispute, econometrically modeled consumer willingness to pay for multimedia messaging services.

Finance

■ In re: American Funds Fee Litigation

US District Court, Central District of California

Supported a series of expert witnesses in mutual fund excessive fee actions. The cases concerned allegations that these companies charged excessive management fees to their mutual funds in violation of Section 36(b) of the Investment Company Act of 1940. Responsible for modeling the factors influencing demand for specific mutual fund products.

Retirement plan provider

Supported an expert in an analysis of the competitiveness of the financial services industry and allegations of excessive 401(k) plan fees charged by a provider of retirement plan services. Econometrically assessed features driving fund purchasing decisions by plan members.

• Denver Employees Retirement Plan v. JPMorgan Chase Bank N.A.

Supreme Court, State of New York

Supported a testifying expert in a dispute involving the management of a collateral investment pool. Developed financial market simulations of investment risk during the 2008 financial crisis and assessed the impact of liquidity crises on asset prices in fire sale conditions.

Employee stock options valuation

Estimated mean time to exercise and modeled appropriate issuing strike prices for employee stock options in relationship to accounting cost and backdating questions.

General Consulting

Gaming industry

Assisted an international lottery corporation with the development of a new game. Responsible for overseeing the development of a risk assessment model to assess the impact of rare events and non-normal patterns of play. Assisted the client in successfully lobbying the gambling regulator for the introduction of the game.

Online gambling industry

Assisted a leading online betting provider through an investigation into the impact of their products on the demand for other gaming products. The support consisted of econometrically modeling demand for gaming products, assessing survey data on player choices, and submitting a report to a gambling regulator.

• In re: Whirlpool Corp. Front-Loading Washer Products Liability Litigation

US District Court, Northern District of Ohio, Eastern Division

On behalf of the class, managed a case team supporting a testifying expert in the calculation of damages stemming from claims of breach of consumer protection statutes, unfair business practices, and breach of express and implied warranties. Developed and implemented a hierarchal Bayesian model to estimate negative impact on consumers from maintenance tasks.

Billing Practices for Wholesale High-Speed Access Services (CRTC 2011-703 and CRTC 704)
 Canadian Radio-Television and Telecommunications Commission (CRTC)
 On behalf of the Canadian Network Operators Consortium Inc. (CNOC), participated in the preparation and filing of a report titled "Report on the Impact of Capacity-based Wholesale Tariffs on Independent ISPs." This report analyzed the impact of proposed changes to wholesale broadband tariffs on the competitive position of independent Internet service providers (ISPs) and the resulting impact on the retail price for broadband Internet in Canada.

Microsoft Corporation

Supported Professor Susan Athey in strategy work related to Microsoft's internet advertising revenues.

Confidential property company

Assisted in the construction of a model valuing water extraction rights for a private developer in the Southwest United States.

Technology company

Implemented economic impact studies based on the input-output methodology and using detailed supplier spend on behalf of one of the largest US technology companies to assess their economic contribution and employment impact on the US economy (including specific states).

CONFERENCE PRESENTATIONS

- "Panel Discussion: Merger Control and 'Non-Competition Concerns': Industrial Policy, Geopolitics, Sustainability, Privacy," *Concurrences* International Merger Conference, London, UK (February 2020)
- "Panel Discussion: Analysis of Effective Private Enforcement of UK Competition Law," IBC UK Competition Law Conference, London, UK (February 2017)

- "Panel Discussion: Private Enforcement," IBC Advanced EU Competition Law Conference, Brussels, Belgium (November 2016)
- "Panel Discussion: Private Enforcement," IBC Advanced EU Competition Law Conference, London, UK (May 2016)
- "Panel Discussion: Private Enforcement," IBC Advanced EU Competition Law Conference, Brussels, Belgium (February 2016)

ARTICLES AND PUBLICATIONS

- "Economics Overview," with D. Mishol, C. Calcagno, and G. Buglione. *Global Competition Review, The European, Middle Eastern, and African Antitrust Review 2019* (July 2019)
- "Economics of Excessive Pricing: An Application to the Pharmaceutical Industry," with C. Calcagno and A. Chapsal. *Journal of European Competition Law & Practice* (February 2019)
- "European Union Two-Sided Markets, Platforms and Network Effects," with A. Chapsal and A. Yeater. *Global Competition Review, E-Commerce Competition Enforcement Guide* (January 2019)
- "Economics Overview," with D. Mishol. *Global Competition Review, The European, Middle Eastern, and African Antitrust Review 2019* (June 2018)
- "Competitive assessment of digital comparison platforms: In search of consensus," with C. Calcagno. *Concurrences No 3- 2018* (2018)
- "The use of economic evidence in private enforcement: Lessons from the MasterCard judgements," *Competition Law Insight* (May 2017)
- "An increasingly important tool: The use of big data in competition economics," *Competition Law Insight* (September 2016)
- "Impact of limiting erythropoiesis-stimulating agent use for chemotherapy-induced anemia on the United States blood supply margin," with F. Vekeman, B. Bookhart, R. McKenzie, MS Duh, C. Piech, P. Lefebvre. *Transfusion*. 2009; 49(5):895-902

PROFESSIONAL AFFILIATIONS

American Bar Association (Associate, Antitrust Law)