

ANALYSIS GROUP FORUM

Economic, Financial and
Strategy Consultants

FALL/WINTER 2007

ISSUE HIGHLIGHTS

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Our practice has never been more challenging, or more exciting, as even a quick glance at national headlines reveals the varied issues faced by the clients we serve. Analysis Group recently participated in *Broadcom v. Qualcomm*, in which the U.S. International Trade Commission ruling in our client's favor raised potentially far-reaching issues for the wireless communications industry. We provided economic analysis in *Verizon v. Vonage*, in which the jury's damages award for past activities appeared to follow our expert's recommendation, and the parties ultimately settled the lawsuit. And in the *Parmalat* litigations, we supported a number of experts in many jurisdictions, analyzing securities issues and other related claims.

We also have been focused on emerging economic issues, and highlight two in particular in *Forum*. Our academic affiliate Hendrik Bessembinder — an expert in micro market analysis and financial risk management — recently conducted our New York seminar on litigation issues involving hedge funds, and offers key observations about evaluating allegations of stock price manipulation. Then we take a look at the subprime lending crisis through the eyes of our affiliates Stuart A. Gabriel, an expert in real estate finance economics and the housing and mortgage markets, and Charlotte Chamberlain, who specializes in the analysis of complex litigation issues involving securities, banks, and thrifts.

Finally, we welcome four outstanding academic experts as new affiliates, and are pleased to announce the promotion to Managing Principal of Michael J. Quinn, in our Boston office. Dr. Quinn's expertise in such diverse topics as finance, natural gas, commodity trading, and alleged market manipulation has been instrumental in many of our successful engagements.

MARTHA S. SAMUELSON
PRESIDENT AND CEO

Subprime Mortgages: Tracking the Market Meltdown

Analysis Group Affiliates Charlotte Chamberlain and Stuart A. Gabriel identify the factors contributing to the crisis

The crisis in the subprime mortgage market has led to a growing wave of litigation involving stakeholders at all stages of the lending process, and in numerous investigations by federal and state regulators. Disputes include allegations of:

- Predatory and discriminatory lending practices
- Inadequate underwriting standards and practices
- Failure of lenders to meet loan repurchase obligations
- Improper accounting methods and inadequate internal controls
- Failure to properly value mortgage-backed securities (MBS) and collateralized mortgage obligations (CMO)
- Improper credit rating and inadequate disclosure of the risks of mortgage-related securities



In a new article, our affiliate **Charlotte Chamberlain** writes that while mortgage lending has always been a cyclical business, the recent collapse of the subprime MBS market has been unparalleled in its speed and depth. Dr. Chamberlain analyzes the MBS market by examining the role of the ABX.HE indices as vehicles for hedging investments in MBS.

First appearing in January 2006, the ABX.HE indices benchmark asset-backed securities prices, connecting credit quality expectations to hedging costs via daily price postings on the Internet. Stagnating home prices and subsequent default fears for subprime loans began to affect hedging costs as ABX.HE indices for the riskiest groups of subprime MBS declined. These falling indices then affected hedging costs for even top-rated subprime bonds. By late January 2007, lowered expectations for loans originated in 2006 had dragged down the entire market — triggering a surge in prices for credit default swaps (CDS). Soaring CDS prices indicated lower expected credit quality, and therefore much lower prices for cash market subprime MBS. And by the end of February 2007, some ABX.HE indices had dropped to less than 70% of par.

Since then, as the hedging costs facing many major financial institutions increased dramatically (nearly 10-fold since mid-January), the fallout extended well beyond its initial scope, continuing to impact financial markets on a global basis.

Charlotte Chamberlain, Ph.D., is a former Managing Director and Equity Analyst with Jeffries & Co. Read her full article on ABX.HE indices on www.analysisgroup.com/subprime. ■

Academic affiliate **Stuart A. Gabriel** of UCLA Anderson School of Management is an expert on real estate finance and economics and the housing and mortgage markets. Frequently quoted on the subprime lending crisis, his recent research focuses on efficiency and equity outcomes in mortgage markets, the effects of housing wealth on macroeconomic activity, house price fluctuations, and the mortgage pricing effects of derivative mortgage-backed securities.

In an article in *The New York Times*, Professor Gabriel describes a good news/bad news scenario for the economy due to difficulties in valuing certain subprime securities and collateralized debt obligations. He says that “losses will be widely distributed across the different owners of these pools of securities.” However, the “high levels of uncertainty and panic” prompted by market valuation difficulties have caused a “severe lack of liquidity in the mortgage market and... created an extremely dangerous situation for our economy and the global economy.”

Professor Gabriel recently co-authored “GSE Loan Purchases, the FHA, and Housing Outcomes in Targeted, Low-Income Neighborhoods,” published in *Brookings-Wharton Papers on Urban Affairs*.

BASF Wins Damages, Prejudgment Interest

Awards top \$206 million in breach of contract case

After a New Jersey jury awarded Analysis Group client **BASF** nearly \$170 million in what attorneys called one of the largest-ever damages awards in a breach of contract case, the judge in the matter then accepted our expert's prejudgment interest calculation of \$36.4 million — bringing the total award, excluding post-judgment interest, to more than \$206 million.

At issue was the contractual relationship between plaintiff **BASF** and **Lyondell Chemical Co.**, in which **Lyondell** agreed to supply “tolling” to **BASF** at a price equal to or lower than the price charged to **BASF**'s competitors. In this instance, tolling involved adding oxygen to propylene to form propylene oxide, a chemical used in the manufacture of foam products. A “most favored nation” provision in the agreement between **Lyondell** and **BASF** ensured that **Lyondell** would adhere to the pricing restrictions. However, **BASF** discovered violations of the most favored nation provision after a series of independent audits.

“This award reflects [the jury's] belief that **Lyondell** had overcharged **BASF** significantly over the years.”

— EUGENE ASSAF, KIRKLAND & ELLIS

BASF's counsel **Kirkland & Ellis** — led by Eugene Assaf and Daniel Donovan — retained Analysis Group Managing Principal **Jonathan Arnold** to examine **Lyondell**'s pricing agreements with other customers, and the resulting price structures. The case was complicated by the fact that many of **Lyondell**'s customers purchased propylene oxide directly, instead of tolling. Because direct purchases of propylene oxide were included in the most favored nation provision, the correct price of tolling had to be calculated — adjusted

for different conversion factors and purity levels. Additionally, companies not considered competitors of **BASF**, and companies outside of the **NAFTA** region, were excluded from the most favored nation provision.

Dr. Arnold, supported by Senior Analyst **Angela Rigg**, analyzed **Lyondell**'s complex pricing and invoicing data, determined that the company charged lower prices to many other customers, and testified as an expert witness to the extent of the overcharge. Dr. Arnold gave expert testimony for one day, after which he was cross-examined by **Lyondell**'s attorneys for five days. After 29 days of trial, the jury determined that **Lyondell** overcharged **BASF** during an eight-year period and failed to notify them of the lower pricing.

Based on his research and analysis, Dr. Arnold suggested damages of \$110 million, \$170 million, \$190 million, or \$286 million depending on certain factual findings required of the jury. This was substantially higher than the \$22.5 million to \$72 million range proposed by **Lyondell**'s valuation expert.

After three days of deliberation on the issue of damages, the jury awarded \$169,932,670 to **BASF** — a victory that underscored the increasing importance of experienced expert economics testimony in major commercial disputes.

Jonathan Arnold (312 212 4465) is based in our Chicago office. ■

RECENT LITIGATION

LOSS CAUSATION TESTIMONY PRESENTED IN EPS SOLUTIONS MATTER

Analysis Group Managing Principal **Bruce Strombom** testified on behalf of plaintiffs seeking damages from EPS Solutions in a dispute involving the omission of material facts by this buyer of several privately-held companies. EPS was a “roll-up” of more than 30 professional services companies into an entity designed to provide one-stop shopping for certain business consulting services, and that could ultimately become a public company. Former business owners and employees were compensated for the roll-up transaction with EPS stock, which became worthless after EPS collapsed within 12 months of its creation.

During the arbitration, Dr. Strombom testified on loss causation — factors that led to the failure of the business and were known by the defendants at the time of the transaction, but not disclosed — and damages. The arbitrator accepted Dr. Strombom’s analysis of the substantial factors leading to EPS’s failure, and his valuation of EPS stock and method for calculating damages. The arbitrator then found in favor of our clients on liability, and imposed an interim damage award of approximately \$26 million. The defendant’s expert had argued for zero damages.

Determination of the final damages award is pending.

ANALYSIS GROUP EXPERT TESTIFIES IN OPTIONS VALUATION TRIAL

Managing Principal **Robert Sherwin** recently testified in a trial involving valuation of stock options held by a former employee of **First Marblehead Corporation** who had sought to exercise the options nearly six years after leaving the company, which had subsequently gone public. After an Analysis Group team of Mr. Sherwin and Vice Presidents **Mark Howrey** and **Ted Laguerre** examined the company’s audited financials and other key documents, Mr. Sherwin testified that no reasonable investor in the plaintiff’s position would have sought to borrow funds and convert liquid assets into the relatively illiquid asset of the company’s non-publicly traded stock at the time of the employee’s departure. Furthermore, Mr. Sherwin concluded, such actions would actually have made the former employee worse off.

A jury found that First Marblehead had failed to inform the former employee of the expiration date of his options, but, consistent with Mr. Sherwin’s financial evaluation, awarded no damages.

NEW JERSEY COURT RELIES ON ANALYSIS GROUP EXPERT TESTIMONY FOR DAMAGES VALUATION

Phibro-Tech, Inc. sued Analysis Group client **Osmose Holdings, Inc.** for misappropriation of a proprietary concept for wood preservative technology and taking it to market ahead of Phibro-Tech. The damages phase of this bifurcated case centered on Phibro-Tech’s claim for disgorgement of any profits earned by Osmose. However, the Superior Court of New Jersey ruled in favor of Osmose, citing the “highly credible” testimony of Analysis Group Managing Principal **Laura Stamm**, who “establish[ed] what [the Court found] to be a fact” — that Osmose had not yet profited from its sales of products using the new preservative technology, and that it was impossible to determine if or when the new and unproven products would be profitable.



The Court then opined that Phibro-Tech’s economic expert had not demonstrated persuasively that Osmose’s misappropriation of proprietary concepts had been injurious. Additionally, said the Court, Phibro-Tech’s expert “failed to plausibly demonstrate the claimed profitability” to Osmose of their use of the technology, and had advanced damages theories that were “entirely speculative.”

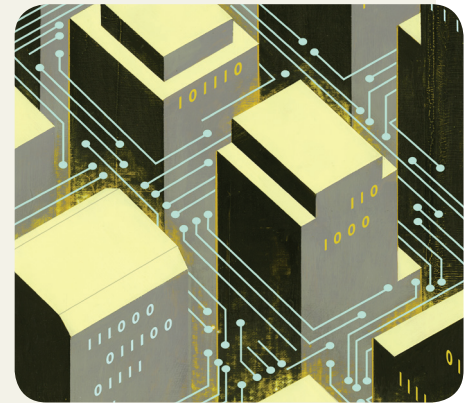
The Court subsequently denied all forms of requests for monetary damages.

IP Litigation Highlights

ITC RULES FOR ANALYSIS GROUP CLIENT IN MICROCHIP PATENT INFRINGEMENT CASE

Following a 60-day veto review period, the Bush administration let stand the June 7, 2007 U.S. International Trade Commission (ITC) Section 337 ruling regarding *Broadcom v. Qualcomm*, in which Analysis Group provided consulting support and expert testimony on behalf of **Broadcom**. Broadcom had earlier sought relief for patent infringement on mobile phone chips, and the June ruling had barred importation into the U.S. of the chips and future model cellular phones containing them.

Managing Principal **Carla Mulhern** and our academic affiliate, Professor **William Lehr** of MIT, testified before the ITC on economic issues related to whether an exclusion order should cover not only the infringing chips, but also the mobile devices incorporating those chips. Our teams, led by Vice President **David Sosa** and Manager **Robin Heider**, provided research and analytical support to Ms. Mulhern, Dr. Lehr, and **Keker & Van Nest LLP**, Broadcom's counsel.



Qualcomm has announced plans to seek a federal appeals court stay of the importation ban pending an appeal of the ITC ruling.

COGENT SYSTEMS SETTLES LAWSUIT OVER FINGERPRINT ID

Our client **Cogent Systems** has accepted a \$25 million offer from Northrop Grumman Corporation to end litigation related to the latter's misuse of Cogent's proprietary technology and trade secrets for biometric identification systems — specifically fingerprint identification software. Northrop Grumman will also pay Cogent \$20 million during the course of a five-year research, development, services, and products agreement, and will pay Cogent an additional \$15 million for a non-exclusive license to use the software.

In analyzing damages issues, the Analysis Group team examined party and industry licensing practices, the nature of several strategic alliances, the economic advantages of the proprietary information at issue, and other market factors. Managing Principal **John Jarosz** submitted an expert report and testified at deposition; he was supported by a team led by Vice President **Robert Vigil**.

TRUEPOSITION WINS \$45.3 MILLION JURY VERDICT IN PATENT INFRINGEMENT SUIT

A Delaware jury awarded \$45.3 million to our client **TruePosition, Inc.** in a patent infringement case against communications provider Andrew Corporation. At issue was Andrew's willful infringement of TruePosition's patent relating to cellular telephone location systems.

Analysis Group was hired to assign a value to Andrew's infringement of intellectual property. Managing Principal **Carla Mulhern**, supported by a team including Vice President **Justin McLean** and Manager **Jennifer Price**, testified at trial that the appropriate form of compensation in the case was TruePosition's lost profits of \$45.3 million. The opposing expert testified that lost profits were not an appropriate form of compensation, or, alternatively, that such lost profits were no greater than \$9.9 million.

The jury awarded damages in keeping with Ms. Mulhern's testimony after fewer than four hours of deliberation. TruePosition may also be awarded enhanced damages given the willfulness of Andrew's infringement.

Spotlight on AG

New Managing Principal

Michael J. Quinn, Boston

*Ph.D. and M.A., economics, Princeton University;
S.B., economics, MIT*



Dr. Quinn — an expert in natural gas and finance — has played an instrumental role in some of the firm's largest engagements, including working on the natural gas aspect of the Enron bankruptcy, managing a large project analyzing the impact of market timing for a global money management firm, and leading projects involving analyses of allegations of excessive fees in mutual fund management. Dr. Quinn also was part of an Analysis Group team that assisted the Federal Energy Regulatory Commission (FERC) in its Western Markets Investigation.

PUBLICATIONS AND PRESS

Commercial Litigation & Damages:

The American Bar Association Section of Litigation published "Tips From the Experts: Getting the Most Out of Your Experts," an Analysis Group article on working with outside litigation experts. Written by Managing Principal **Pierre Cremieux** and Vice President **Elizabeth Eccher**, the article appears in the Summer/Fall 2007 edition of the ABA Litigation Section's publication *Expert Alert*, and is available for download from our Web site — www.analysisgroup.com.

Energy: A blue-ribbon panel including Managing Principal **Susan Tierney** published *A National Perspective on Allocating the Costs of New Transmission Investment: Practice and Principles* — a major study of how the costs of high-voltage transmission upgrades and

expansions should be fairly and efficiently allocated. The independent study was commissioned by WIRES, a non-profit trade group, which selected Dr. Tierney and others "for their recognized expertise, diverse experience within the industry, and...ability to consider the issues objectively."

EVENTS & SEMINARS

Antitrust: Academic Affiliate **Roger Ware** introduced Sheridan Scott, Canada's Commissioner of Competition, at the Canadian Bar Association's 2007 Annual Fall Conference on Competition Law in Ottawa, Canada, October 11.

Commercial Litigation & Damages:

Vice Presidents **James Rosberg** and **David Sosa** conducted the seminar "Litigation Case Studies: Forecasting on Trial" in San Francisco, CA, June 12.

Energy: Managing Principal

Susan Tierney presented at the Greentech Innovations Network hosted by Kleiner Perkins Caufield & Byers and The Aspen Institute in Aspen, CO, July 18. Dr. Tierney also participated in the Institute's annual Energy and Environment Program meeting.

Health Care Consulting

Services: Managing Principal **Brian Gorin** delivered a presentation on "Redefining Value in the Drug Delivery Portfolio" at the 12th annual Drug Delivery Technologies & Deal-Making conference in New Brunswick, NJ, September 24.

Managing Principal **Pierre Cremieux** presented on the value of pharmaceuticals at the Second International Conference on the Pharmaceutical Life Cycle in Montreal, Canada, October 14.

Analysis Group also presented research posters on a variety of topics at major conferences in the United States and Europe, including the American Society of Clinical Oncology (ASCO), the Congress of the European Hematology Association (EHA), the New Clinical Drug Evaluation Unit (NCDEU) meeting, the American Diabetes Association (ADA), the ISOQOL Conference on Patient Reported Outcomes in Clinical Practice, the Multinational Association of Supportive Care in Cancer (MASCC) International Symposium, and the International Health Economics Association (iHEA) World Congress.

Innovation Management:

Analysis Group sponsored Harvard and MIT's Fall 2007 Industrial

Organization Workshop, September 17 to December 3.

Intellectual Property:

Managing Principal **Laura Stamm** spoke at the Practising Law Institute's annual Patent Litigation seminar, New York, NY, October 22.

Managing Principal **Carla**



Mulhern and Vice Presidents **Thomas Ortenzi** and **David Sosa** conducted a seminar on

"The Role of Economic Analysis: IP Litigation at the ITC" in San Francisco, CA, November 28.

Securities & Financial

Instruments: President and CEO **Martha Samuelson** participated in the session on "Settlement Procedures and Trends in Securities Actions" at the Practising Law Institute's Securities Litigation & Enforcement Institute, in New York, NY, September 17.

Managing Principal **Laura Stamm**, Vice President **Gaurav Jetley**, and Academic Affiliate **Hendrik Bessembinder** conducted an Analysis Group seminar on key issues in current hedge fund litigations, in New York, NY, October 24 (see below).

Valuation: Vice President **Robert Vigil** taught a course at the Licensing Executives Society Advanced Valuation Skills conference in Philadelphia, PA, June 13–14.

Impact of Right of Way Fees on Utility Rates Studied

The **Northern Ute Indian Tribe** of Utah retained Analysis Group to conduct a study about whether Indian tribes were demanding excessive compensation for natural gas pipeline and electric transmission line "rights of way" (ROWs) across their reservation lands. Managing Principal **Susan Tierney** and Manager

Todd Schatzki calculated the impact of ROW fees on overall rates charged to energy consumers and determined that any increase in ROW pricing would not have a material impact on rates for end users. The Analysis Group team detailed their findings in a report to the U.S. Departments of Energy and the Interior.

The Departments of Energy and the Interior recommended that "the valuation of energy ROWs on tribal lands should continue to be based on terms negotiated between the parties."

ANALYZING ALLEGATIONS OF STOCK PRICE MANIPULATION BY HEDGE FUNDS

At a recent Analysis Group seminar, academic affiliate **Hendrik Bessembinder** and Vice President **Gaurav Jetley** addressed issues related to identifying and analyzing allegations of stock price manipulation involving hedge funds. Hedge-fund-related Securities and Exchange Commission (SEC) litigations have skyrocketed since 1998, with several recent suits seeking to recover losses allegedly caused by specific trading practices, including short selling, or a broker's misuse of information about a fund's position.

Dr. Bessembinder shared the following key observations:

- As trades potentially affect prices in both the short- and long run, the SEC has established a standard to estimate trading costs that quantifies the transitory price effects of trades.
- Estimating the price impact of trades over relatively long time periods with any precision is difficult.
- Since traders generally want to limit the impact of their trades on price, trades that seem to have a large impact on price may indicate manipulative intent.



An expert in micro market analysis, Dr. Bessembinder has been a consultant and expert witness in a number of matters involving stock market structure and performance metrics, stock market manipulation, risk management strategies, and mutual fund and bond market trading costs. He is also an authority on the numerous analytical methodologies and data discovery requirements for determining the effects of trades on prices, drawing upon both his academic expertise and his experience as an expert witness in litigations involving derivatives.



Mr. Jetley specializes in securities litigation, corporate finance, and valuation of derivative instruments. He has worked on matters involving valuation of a variety of financial derivatives, such as collateralized mortgage obligations and path-dependant equity and currency options.

Academic Affiliate News

Analysis Group is pleased to announce our affiliation with these distinguished academics. See www.analysisgroup.com for more information on our affiliate network.

James W. Hughes

Thomas Sowell Professor of Economics, Bates College



James Hughes' principal areas of research include antitrust, class certification, health care, labor, and law and economics. Professor Hughes is an experienced expert testifier and has consulted extensively in matters involving allegations of price-fixing and collusion. As a labor expert, Professor Hughes has conducted research on gender discrimination in various markets in the United States and China. Also an expert in law and economics, Professor Hughes was invited to contribute an entry on the subject to *The New Palgrave Dictionary of Economics and the Law* based on his research on the effects of fee-shifting on litigation outcomes.

Currently, Professor Hughes is engaged in research on the effects of tobacco taxes on health care utilization, and a study of how changes in generic prescription drug laws may affect the innovation rates of research pharmaceutical companies.

Joel H. Steckel

Professor of Marketing, Leonard N. Stern School of Business, New York University



Joel Steckel's primary research areas include marketing and branding strategy, marketing research, direct marketing, consumer response to marketing strategy, and management decision making. Professor Steckel has consulted, testified as an expert witness, and conducted modeling and analysis in numerous cases involving antitrust, damages assessment, trademarks, marketing and branding strategy, forecasting, and the statistical analyses of market response. He has analyzed industries including telecommunications, consumer products, financial services, pharmaceuticals, apparel, retail, and health care. He was the founding president of the INFORMS Society for Marketing Science, served six years as the Chair of NYU Stern's Marketing Department, and is currently the Director of the Ph.D. programs at NYU Stern.

Professor Steckel has published in such peer-reviewed journals as the *Journal of Marketing Research*, the *Journal of Retailing*, *Marketing Science*, *Interfaces*, and the *Journal of Consumer Research*.

Roger Ware

Professor of Economics, Queen's University (Canada)



Roger Ware focuses his research on industrial organization, antitrust economics, telecommunications and energy economics. In addition to publishing many articles in these areas, Professor Ware co-authored (with Dr. Jeffrey Church) *Industrial Organization: A Strategic Approach* (McGraw-Hill, 2000), which is frequently cited by experts and practitioners.

Professor Ware has consulted on many recent competition cases, and has testified as an expert witness several times before Canada's Competition Tribunal. His expert testimony on behalf of the respondent in *Commissioner of Competition v. Canada Pipe Company, Ltd.* (2005) contributed to the first respondent victory (now under appeal) in an Abuse of Dominance case since the 1986 passage of the Canadian Competition Act.

Michael K. Wohlgenant

William Neal Reynolds Distinguished Professor of Agricultural & Resource Economics, North Carolina State University



Michael Wohlgenant specializes in the development of economic models related to agricultural marketing, policy, and price analysis, including farm-to-retail price linkages. He has had extensive commodity experience, including work on applied price and marketing problems for cotton, dairy, beef, pork, grapes, sugar, tobacco, wine, and horticultural crops, and has served as an economic consultant for RTI International, the Food and Agriculture Organization of the United Nations, the U.S. Department of Agriculture, and the U.S. Government Accountability Office. He has also provided expert witness testimony in regulatory proceedings, including testimony before the U.S. International Trade Commission.

Professor Wohlgenant is a recipient of an Outstanding Article Award and a Publication of Enduring Quality Award from the American Agricultural Economics Association (AAEA), to which he was elected as a Fellow in 2001.

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