Also inside:

Data Science and Online Reviews | *Prescription Drug Pricing and Value* | *The Outlook for Grid Resilience*

ANALYSIS GROUP ECONOMIC, FINANCIAL and STRATEGY CONSULTANTS

Forum

Summer 2018

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From Our CEO

How can the power of data science be harnessed to create effective controls against the diversion of opioids and other controlled substances, or to predict whether a disputed patent will survive a challenge? What are the legal and regulatory implications of multi-sided platforms, where behavior that some see as anticompetitive may in fact enhance consumer welfare? These are among the many complex issues that we explore in this issue of *Forum*, which demonstrates the breadth and depth of economics, health care, and litigation support expertise we bring to the challenges our clients face.

Other exciting developments discussed in these pages include cryptocurrencies and the manifold regulatory and litigation questions they present; the causes and implications of a recent wave of retail liquidations; electric grid resiliency and the future of liquefied natural gas in Europe; tensions between cost effectiveness and affordability in drug pricing; determinants of essentiality in standard essential patents; and debates over the admissibility of surveys in litigation.

We remain committed to our distinctive, collaborative culture, which provides the underpinning for the success of our firm and our clients. I hope you enjoy this issue.

MARTHA S. SAMUELSON
CEO AND CHAIRMAN

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Economic Consulting in the Data Science Era

Data science is being used in consulting to law firms, corporations, and government agencies to create more powerful predictive models and inform critical decision making.

JAMES SIGNOROVITCH
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DATA SCIENCE

The volume of data around us continues to grow at a staggering pace. According to a recent study, 90% of all data in existence today was generated in the past two years. Harnessing this data and using it to inform critical decisions is no easy task. The sheer volume can be overwhelming, with much of the data coming from a multitude of sources and in a wide range of often-incompatible formats, both structured and unstructured. These challenges bring the risk that "big data" will soon become too big to process and convert into meaningful insights.

This is where data science comes into play. The field of data science comprises a number of statistical approaches and methods, including machine learning, natural language processing (NLP), and data visualization. In all of these, data scientists go beyond traditional analytics and focus on extracting deeper knowledge and new insights from what might otherwise be unmanageable datasets and sources.

Analysis Group has long been at the forefront of the disciplines that have evolved into what is known today as data science. Our continued investment in this area helps us to identify previously indiscernible patterns, efficiently comb through unstructured data, and generate more accurate and powerful predictive models. In collaboration with leading academic and industry experts, we are developing new applications for data science tools across virtually every sector of economic and litigation consulting. Examples include creating custom analytics that help companies develop effective controls against the diversion of opioid drugs; analyzing online product reviews to help assess claims of patent infringement; and efficiently analyzing billions of mutual fund transactions across numerous file formats and platforms. (See accompanying table.)

In addition, the integration of data science across our client work often means we are identifying new approaches to solve known problems. NLP is known to many as an e-discovery efficiency tool for processing documents and emails; we are also using it to efficiently gather and analyze valuable intelligence from online product reviews from websites such as Amazon or from the ever-expanding array of social media platforms. Machine learning can also be used to detect complex and unforeseen relationships across numerous data sources. In our health care work, this might include developing applications to compare reported outcomes across both structured and unstructured datasets, such as spreadsheets, handwritten physician notes, and image scans.

To generate swift and actionable insights from large amounts of data, we must be able to explain how to "connect the dots," and then validate the results. Most machine learning tools, for example, rely on sophisticated, complex algorithms that can be perceived as a "black box." If used inappropriately, the results can be biased or even incorrect. For this reason, it is important to fully vet and discuss the available data and choice of methodology with clients or adjudicators. This transparency allows us

The number of data science applications used in economic analysis continues to expand rapidly.

Health Care
Predicting the prevalence of an undiagnosed or underdiagnosed disease from real-world data, drawn from multiple sources
Developing custom algorithms to create effective controls against the diversion of controlled substances
Making real-time predictions about the probability of success of clinical trials to accelerate the drug development process
Analyzing social media to identify influencers and predictors for unexpected peaks in chat activity related to potential drug-related adverse events

Consumer Products
Efficiently processing online reviews, posts, blogs, and tweets to gain deeper insight into how consumers value the individual features of a product or service
Using predictive analytics to help forecast the market demand for new products or features and/or the success of marketing campaigns

Insurance
Using machine learning to predict the number and severity of claims
Using NLP to detect fraud, including by analyzing the keyword frequency and phrase structure of insurance claims
Developing and implementing predictive models that support claims processing decisions

Intellectual Property
Analyzing online product reviews to help determine whether and to what extent allegedly infringed features made a difference in consumers' purchase decisions
Examining similarities/dissimilarities of patent language published in multiple jurisdictions to determine the likelihood that a specific patent will survive a challenge

Antitrust
Using NLP to define the relevant market of a product through analyses of online reviews that illustrate how consumers think about product substitutes
Analyzing user-generated data to help determine the potential influence of social media buzz on demand or price

Finance
Using machine learning to detect securities market manipulation from billions of transactions in extremely compressed time frames
Analyzing years of order-level market data (e.g., order placement, modification, cancellation, and messaging) for liquid financial instruments
Utilizing high-performance computing tools to rapidly price residential mortgage-backed securities (RMBS) certificates, determine credit risk, and predict defaults and mortgage prepayments

to deliver actionable and understandable analytics through dynamic, interactive platforms and dashboards.

The expanding world of available data has its challenges. Many of these newer data sources, especially user-generated data, bring risks and tradeoffs. While much of the data is freely available and accessible, there are potential biases that need to be addressed. For example, Amazon reviews could be artificially weighted or otherwise influenced. There can also be uncertainty around the overall data quality from user-generated sources. Addressing these kinds of issues in a verifiable way requires sophisticated understanding at the intersection of advanced analytical methodologies in computer science, mathematics, statistics, and economics.

As the volume of available information continues to expand, the challenge of extracting value from the data will only grow more complex. It will be important to take full advantage of further enhancements in data storage, retrieval, and processing to keep pace. Equally important will be continuing to empower key stakeholders and decision makers – whether in the boardroom or the courtroom – by making the data, and the insights it can deliver, understandable and compelling. This will likely continue to require developing new data science tools and applications, as well as enhancing stakeholders' ability to view and manipulate the data in real time through the continued development and refinement of user-friendly dashboards. ■

How Data Scientists Can Leverage Online Reviews in IP and Antitrust Disputes

The exponential growth of user-generated data is yielding new insights into how products compete with one another.

Product disputes related to intellectual property often introduce questions about a product's relevant market and the importance of certain product features. Consider a hypothetical dispute between two printer companies.

The manufacturer of Printer A seeks damages because it alleges that the manufacturer of Printer B is infringing on its patent. As a counterargument, Printer B's manufacturer claims that the features that are allegedly infringed are worth very little to the consumer. Furthermore, it argues that imposing large royalties would drive Printer B out of the market and create potential antitrust concerns. Many traditional measures used to assess the value of the features at issue appear inconclusive; how can data science help?

Companies can use data science tools to leverage user-generated data and find answers to questions that have previously been elusive. In this example, NLP can be used to examine product review websites or other user-generated content related to the printers. Using data science to gather and analyze these kinds of unstructured data can lead to a more sophisticated understanding of consumers' buying behavior, providing quantifiable insights as to the relative value of the features at issue and whether Printer A and Printer B are considered substitutes for one another in the relevant market. ■

http://www.ultimateprinterreviews.com/product_reviews

Ultimate Printer Reviews | Home | Product Reviews | About | Contact

Product Reviews

Printer A

Username 1
1 week ago
... on text documents, the print speed of Printer A (7.7 ppm) and B (7.9 ppm) did not differ greatly. However, graphics print speeds varied more, with Printer A (5.1 ppm) a bit faster than Printer B's speed (4.6 ppm).

Username 2
2 months ago
I have over 30 years of professional technical experience and I was amazed that setting up Printer A was such a convoluted experience.

Username 3
4 months ago
It was very easy to change Printer A's paper and ink cartridges and to resolve paper jams, two issues that were particularly frustrating with Printer B (helping to make Printer A our current top pick for best overall all-in-one).

Printer B

Username 4
2 weeks ago
If you plan to print PDF documents, know that text as well as graphics quality varies. Printer B printed the sleekest, sharpest letterforms!

Username 5
1 month ago
I bumped up the rating to five stars as this is one of the only all-in-ones that has a secondary sheet feeder.

Username 6
3 months ago
... every other printer I've ever owned lets you pop it open so that you have complete access to the feed rollers. This almost always makes it easy to remove any stuck paper. This printer's design doesn't accommodate for that.

Yellow highlighting:
Features of Printer B are discussed in reviews about Printer A, suggesting that the two products may compete in the same market.

Green highlighting:
NLP algorithms extract information about important features that are discussed – such as speed, print quality, setup, and secondary sheet feeders – and then assess their relative importance.

The Ongoing Evolution of Cryptocurrency Regulation and Litigation

Regulatory agencies' approaches to cryptocurrencies will have a key impact on how these cutting-edge technologies will evolve, and the litigation that they will inevitably generate.

STEVEN SAEGER
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ROZI KEPES
ASSOCIATE

In recent months, regulatory bodies have begun to stake out positions on their jurisdiction over cryptocurrencies. Many of the questions turn on how to define and classify cryptocurrencies and cryptocurrency-related technologies or products.

"Cryptocurrency" is a generic term for a virtual currency based on cryptography, of which Bitcoin is the most well-known. Unlike government-backed "fiat" currencies, no central bank controls the supply of a cryptocurrency or provides a backstop. Instead, a cryptocurrency is generally established and becomes available via "mining," the process by which market participants verify valid transactions using a set of sophisticated algorithms and protocols. The soaring value of many cryptocurrencies in 2017 brought increased attention to the market, which in turn led to the creation of new cryptocurrencies – even as some commentators noted the extreme volatility in cryptocurrency markets and compared the situation to a financial bubble.

The surge in interest in cryptocurrencies has spurred corresponding growth in initial coin offerings (ICOs), a mechanism for raising funding for cryptocurrency-related ventures. ICOs themselves have begun to attract increasing attention from regulators. In particular, the US Securities and Exchange Commission (SEC) has argued that ICOs are subject to its existing regulatory authority over securities offerings.

In 2017, the SEC shut down an attempted ICO by the cryptocurrency startup Munchee, claiming that it constituted a securities offering that Munchee had failed to register. In addition, one of the first ICO-related class actions was filed in November 2017, relating to the cryptocurrency known as Tezzies. The proposed class action includes allegations of false advertising, securities fraud, unfair competition, and failing to register the offer and sale of securities.

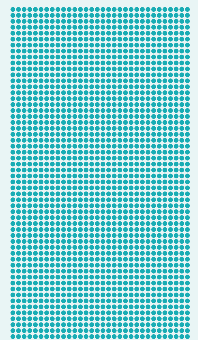
At the same time, the Commodity Futures Trading Commission (CFTC) has started to regulate certain types of cryptocurrencies as commodities, raising questions as to whether cryptocurrencies will be treated differently for regulatory purposes at different points during their life cycle. Tax authorities are also taking different approaches to cryptocurrencies. In the US, the Internal Revenue Service (IRS) treats cryptocurrencies as property, with the result that any cryptocurrency transaction may trigger capital gains tax. In contrast, a 2015 European Court of Justice ruling found that Bitcoin should be treated as a currency, and therefore not be subject to value-added taxation as a product.

Another key focus is the security of the coin exchanges on which cryptocurrencies typically are traded. Several exchanges purportedly have been the subject of cyberattacks; these reports may prompt increased government scrutiny, as was the case in the aftermath of the admitted hack of the Coincheck exchange in Japan. If cryptocurrency holders suffer losses in these attacks, they may also attempt to file class action litigation.

To date, regulators have focused on potential fraud and market manipulation in cryptocurrency trading, but the market's rapid evolution is likely to continue to raise new legal and regulatory questions. ■

1
Bitcoin introduced as first cryptocurrency in 2009

66
Cryptocurrencies as of 2013



1,800+
Cryptocurrencies as of August 2018

Source: CoinMarketCap.

129
ICOs worth more than $5M in Q2 of 2018

Source: CoinDesk.

Exclusionary Abuses and Multi-sided Platforms

Multi-sided platforms have a long history, but the complex economics underlying them have only recently begun to be disentangled by competition enforcers and economists.

ANTOINE CHAPSAL
PRINCIPAL

REBECCA KIRK FAIR
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Multi-sided platforms create value by connecting networks of two or more interdependent groups of customers. Without such a platform, the value created by each side would be either greatly diminished or nonexistent. Examples of multi-sided platforms include credit and debit card payment platforms (which connect cardholders with merchants, or issuing banks with acquiring banks), ride-sharing services such as Uber and Lyft (which connect drivers with passengers), and a wealth of e-commerce platforms (which connect software providers, application developers, advertisers, or other products and services on one side with customers on the other).

Although multi-sided platforms were not invented with the internet,[1] the rise of technology-based giants such as Amazon, Google, and Apple has drawn increased scrutiny from competition authorities and an associated increase in attention to the underlying economics of these platforms. From both the economics and the competition perspectives, "indirect network effects" are an important component of the complex interactions between the different sides of a platform.

Different views of anticompetitive behavior

The economic issues underlying two-sided platforms, as articulated by Rochet and Tirole in their seminal 2003 paper,[2] have recently been at the core of deliberations in important antitrust and merger cases in the highest courts in the US and Europe. Indirect network effects are the result of actions affecting volume, utility, or value on one side of a multi-sided platform that have corresponding effects on other sides. For example, raising prices on a ride-sharing platform is likely to decrease the number of riders, which makes the platform less attractive to drivers. A reduction in the number of drivers, in turn, makes the service even less attractive to riders, and a downward spiral has begun.

Conversely, to create and protect value in a two-sided platform business, it may be optimal to charge a below-cost price to the group that is more price-sensitive. By increasing demand on the one side, demand can be boosted on the other side as well, which serves to increase the overall value or utility of the platform as a whole. (See illustrative figure.) Thus, in many cases pricing below cost on one side of the platform will not represent a per se threat to competition – it simply may be the only way to get both sides on board and ensure that the platform is profitable overall.

In this case, below-cost pricing may not constitute predation. In other words, potentially anticompetitive behaviors in one-sided markets may be procompetitive – and potentially welfare-enhancing – when implemented by multi-sided platforms.

Another example is exclusive dealing clauses. Consider the case of two e-commerce platforms that compete for designer brands on one side and customers on the other. If customers could find the same brands (at the same price) on both platforms, their incentive to "multi-home" and use more than one of the competing platforms would be diminished. In this case, the platform with an initial competitive advantage, no matter how small, would attract all the customers and,

1. OTHER "TRADITIONAL" BUSINESSES THAT OPERATE ON THE SAME PRINCIPLES INCLUDE SHOPPING MALLS (CONNECTING DIFFERENT RETAILERS WITH CUSTOMERS) AND AIRPORTS (CONNECTING TRAVELERS WITH A VARIETY OF TRANSPORTATION AND RETAIL SERVICES).

2. ROCHET, J.-C., TIROLE, J., "PLATFORM COMPETITION IN TWO-SIDED MARKETS," *JOURNAL OF THE EUROPEAN ECONOMIC ASSOCIATION*, 1(4): 990–1029 (2003)

3. CHAPSAL, A., CAZAUBIEL, A., DE NIJS, R., *TWO-SIDED MARKET DYNAMICS: THEORY AND EVIDENCE*, WORKING PAPER, UNIVERSITAT POMPEU FABRA, BARCELONA (2016)

4. *SAINSBURY'S V. MASTERCARD*; *AAM V. MASTERCARD*; *SAINSBURY'S V. VISA*, AT 90

given network effects, could drive the temporarily less-attractive competitor out of the market, even though this competitor may, in the long run, be a better alternative.

If, on the other hand, one platform had exclusive access to select brands, a second platform would have incentives to compete for other designer brands in order to stimulate demand on the consumer side. In this way, the two platforms may coexist, competing both for exclusive arrangements with suppliers and for purchases from consumers, potentially leading to greater efficiencies and innovations.

For this reason, although exclusivity clauses in single-sided markets can serve to suppress competition, with multi-sided platforms they may actually be useful for promoting competition by inducing multi-homing between marginally different platforms. This example highlights another fundamental difference between single-sided and multi-sided markets. In single-sided markets, product differentiation mitigates competition, but with two-sided platforms, product differentiation on one side may well foster competition on the other side, leading to greater network effects and greater platform competition.

These conclusions do not imply that multi-sided platforms are immune from competitive harm caused by exclusionary conduct, including predatory prices and exclusivity clauses. For example, pricing below cost on one side of the platform may allow a dominant firm with an established base of captive customers to exclude a smaller but more efficient rival from both sides of the platform.

In addition, in a recent working paper we show that some exclusivity clauses can fundamentally alter the relationship between platform and producer by forcing the former to operate in the risky reseller mode.[3] If so, a dominant producer's market power could pressure a platform to purchase the producer's output and resell the product on its own, rather than serving as the intermediary "marketplace" for transactions between producer and customer.

Questions for competition courts

Recent high-court decisions in both the US and Europe have revolved around the unique economics underlying multi-sided platforms. In a 5-4 decision from June 2018, the US Supreme Court found for the defendant in *Ohio v. American Express Co.* The opinion explicitly cited the role of indirect network effects in determining that the two sides of the platform should properly be considered a single market, where value for merchants is inextricably tied up with inducements for cardholders to participate.

In July 2018, the UK Court of Appeal similarly emphasized the importance of properly balancing efficiencies and restrictions on both sides of the two-sided credit card market. The Court of Appeal reviewed lower-court decisions in three cases brought by UK retailers, all of which alleged that the multilateral interchange fees (MIFs) set by MasterCard and Visa were anticompetitive. In finding for the retailers and sending the decisions back for reconsideration, the Court of Appeal specifically assessed whether "the objective advantages of the default MIFs to both cardholders and merchants from increased card usage and efficiencies outweigh the disadvantages of the restriction"[4] to the merchants.

These and other cases have addressed key questions that courts should consider when evaluating any anticompetitive allegations related to multi-sided platforms. Strategies implemented by multi-sided platforms require complex analysis to determine any potential for anticompetitive harm, because what may be anticompetitive in one context may dramatically enhance consumer welfare in another. ■

Will Retail Debt and Financial Distress Continue to Grow?

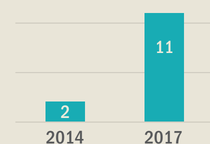
The increasing amount of leverage on brick-and-mortar retailers' balance sheets underscores the need for a sophisticated understanding of debt management options.

In 2017,

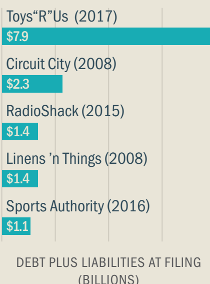
20%

of retail companies were "distressed" – **rated CCC or below**

INCREASE IN LARGE-SCALE RETAIL BANKRUPTCIES



LARGEST RETAIL BANKRUPTCIES IN THE PAST 10 YEARS



DEBT PLUS LIABILITIES AT FILING (BILLIONS)

Between 2010–2016, retail companies were

4x

more likely to pursue distressed transactions as a non-financial default strategy than they were between 1990–2007

Source: Analyses of bankruptcy data by Analysis Group.

The number of financially distressed retail companies has been climbing, reaching levels rivaling the recession years. Indeed, data from S&P Capital IQ shows that in 2017 the number of large-scale retailers filing for bankruptcy grew to 11, compared to only 2 in 2014. News reports of shuttered big box stores and dark malls abound, and 2018 has already seen announcements of plans to close stores by such retail giants as Toys"R"Us and mall-staple Claire's. Even Manhattan is not immune, with news articles about empty storefronts in upscale sections of SoHo and on stretches of Broadway.

Research from S&P Global Ratings indicates that, in 2017, fully 20% of retail companies were classified as "distressed," doubling the rate from 2016. With a rating of CCC or lower, distressed companies are well below investment grade and characterized as investments with "substantial risks" – just shy of being "extremely speculative."

This so-called "retail apocalypse" has coincided with massive changes in the industry, such as the rise of e-retailers and the growing number of retail acquisitions by private equity (PE) firms. Both trends highlight the challenges brick-and-mortar retailers can have with managing large debt loads.

Retail struggles with debt

Highly leveraged companies may face the most difficulty remaining viable in this environment of decreasing brick-and-mortar traffic and revenue. For example, in one of the largest retail bankruptcies of all time, the September 2017 Chapter 11 filing by Toys"R"Us reflected years of declining sales and nearly $5 billion in debt, pushing the company into liquidating its inventory and stores. Retail operations depend heavily on large capital investments and on operating leases, requiring companies to apply more resources toward servicing debt and less toward investing in the new technologies and new business models needed to compete with e-retailers.

Although leveraged buyouts by PE companies increase debt loads, which can be difficult to manage in times of financial distress, academic research suggests that PE-backed firms that encounter financial distress may actually fare better than non-PE-backed firms. A 2014 article indicates that PE firms have been making acquisitions in industries that already have lower rates of recovery from default – such as retail – rather than being the force driving them into default. The researchers conclude that "[w]hen private equity-backed firms do become financially distressed, they are more likely to restructure out of court, take less time to complete a restructuring, and are more likely to survive as an independent going concern, compared to financially distressed peers that are not backed by a private equity investor."[1]

PE firms are also important buyers of financially distressed companies out of bankruptcy. A 2016 article found that 10% of companies that emerge from bankruptcy do so through a going-concern sale of substantially all assets to a financial buyer such as a PE firm. The

researchers found that recovery rates, survival rates, and other indicators suggest that bankruptcy sales are "consistent with the efficient redeployment of assets via sales in bankruptcy."[2]

Down but not necessarily out

Increasingly, however, retail companies are considering options outside of Chapter 11 to restructure debt and remain in business. In particular, the industry has seen a rise in distressed exchanges (DEs), such as the one Sears offered in January 2018 to extend loan maturities and replace interest payments with payments in kind.

DEs have largely been an understudied solution, but that may be changing. Some evidence exists showing that DEs produce higher recovery rates, as they can be used to bolster a company's balance sheet without incurring the time and cost of a Chapter 11 filing. Our analysis of data from Moody's shows that DEs have risen from 10% of non-financial defaults from 1990–2007 to more than 40% in 2010–2016. As an added incentive, the 2009 American Reinvestment and Recovery Act and later changes to tax law have allowed gains from DEs to be excluded from taxation. Distressed exchanges may also be especially attractive to PE investors, who typically have little interest in court-monitored restructuring.

A cautionary look ahead

Retailers are facing increasing pressure to take remedial action while their balance sheets still allow it. According to Moody's, the next few months are likely to bring more defaults and ratings downgrades in the retail sector, and a significant amount of debt is expected to come due within the next few years. In addition, several developments on the regulatory front have the potential to add pressure on struggling retailers. (See sidebar.) The question remains whether the "retail apocalypse" will continue unabated, or if new approaches to debt management can temper it. ■

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ENDNOTES

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Caveats in the Regulatory Landscape

If a business is already struggling with its debt structure, recent changes in the regulatory landscape could add pressure.

- Some have blamed the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (BAPCPA) for increased retailer liquidations. This reform shortened the time retailers had to assume or reject store leases following a bankruptcy filing to just a few months.

- In 2015, the Financial Accounting Standards Board (FASB) changed its standard for reporting debt issuance costs (by issuing ASU 2015-03). Previously, a company could present these costs as either a prepaid asset or a deduction to debt. Now, it must present debt issuance costs as a direct deduction to the amount of related debt liability presented on its balance sheet. For some borrowers, the change could mean the difference between compliance with a debt covenant ratio and an apparent breach.

- Similarly, a 2016 change in FASB guidance on lease accounting (ASU 2016-02) requires companies to recognize certain operating lease assets and liabilities on the balance sheet, when previously such leases were off-balance sheet. These additional assets and liabilities could affect financial metrics and debt covenants, especially in industries such as retail that rely heavily on leasing.

The Outlook for Resilience in Electricity Generation and Distribution

Puerto Rico's continuing struggle to recover from Hurricane Maria provides a sober reminder of the importance of a resilient and strong electric grid.

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PRINCIPAL

SUSAN F. TIERNEY
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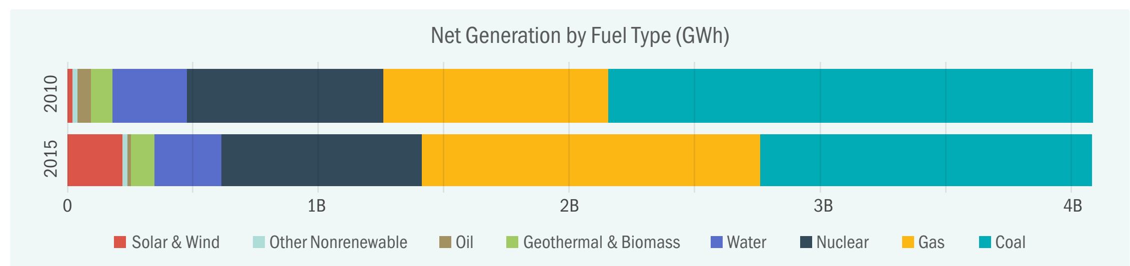
Just a month before Hurricane Maria devastated Puerto Rico, the US Department of Energy (DOE) released its *Staff Report to the Secretary on Electricity Markets and Reliability*. The report was intended to answer some critical questions about the complex transitions underway in the US electric industry: What is driving change in the mix of technologies we use to generate power? Are these changes making the US power supply any more or less reliable?

Among other findings, the report noted that the nation's electric system is now more diverse than in the past, but that power systems require more flexible resources to maintain reliability. The study found that no single type of generating technology provides all of the country's essential reliability services, and that each technology provides some.

The importance of diversity and many of the DOE staff's other observations align with the findings in Analysis Group's 2017 study, *Electricity Markets, Reliability and the Evolving U.S. Power System*. In the report, we find that, overall, the US electric system has become cheaper, cleaner, more reliable, and more diverse. (See figure.) These changes are principally the result of market forces, with declining natural gas prices and the addition of significant renewable capacity becoming the key drivers of financial pressure on existing power plants. We come to the conclusion that plant retirements occurring due to these factors are generally consistent with the outcome of competitive market forces.

We also maintain that the concept of "baseload" generators (as applied to coal-fired and nuclear plants that run on a near-continuous basis around the clock) is outdated. The increasing use of economical and flexible gas-fired power, together with changes in wind and solar technologies, are capable of providing power efficiently, economically, and reliably.

Critically important grid-resilience issues still remain to be addressed by the DOE, the Federal Energy Regulatory Commission (FERC), states, and the electric and natural gas industries. To continue our forward momentum, however, energy markets will need to properly value new technologies; additional transmission lines and better planning and coordination will be needed to make our grid more resilient; and research should be undertaken on additional ways to lower the cost of energy storage, more smoothly integrate renewables, and maintain an efficient and reliable power grid. ▪



Source: SNL Financial.

LNG Contracts Taking New Shape in Europe and Globally

Evolving supply and demand factors are leading to a more competitive, globally integrated liquefied natural gas (LNG) market.

ANDREA OKIE
VICE PRESIDENT

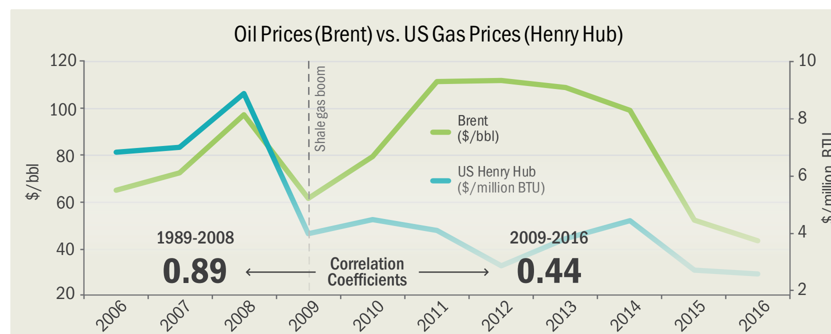
MICHAEL J. QUINN
SENIOR ADVISOR

Natural gas is an increasingly globalized commodity due to several factors, including growth in low-cost natural gas supplies from producing regions, particularly from hydraulic fracturing of shale, and greater export capacity for LNG. Over the next five years, we expect to see movements in global natural gas prices become more synchronized with each other, while continuing to be decoupled from crude oil prices in shale gas-producing regions such as the US. (See figure comparing the correlation between US gas and oil prices pre- and post-2009.) We also expect LNG trade to continue to become more fluid and market-sensitive.

New contracts for the supply of LNG have begun to reflect these changes. Prior to the development of shale gas, contracts for LNG typically sourced natural gas from outside the US, were long-term in duration, and linked prices to worldwide oil prices or to natural gas prices in the buyer's market (and in European contracts, commonly a combination of both). Resale of LNG was strictly prohibited, and volumes were fixed. In contrast, new contracts for LNG today are increasingly sourced from US natural gas and provide for pricing linked to natural gas prices in the seller's market (typically Henry Hub for US-sourced gas). They also increasingly allow for flexible destinations and volumes, are for relatively shorter periods of time, and allow resale by the buyer.

Existing long-term LNG contracts also typically contain reopener clauses to protect both parties from pricing swings, and to realign prices with both the seller's costs and general market pricing. The same worldwide market changes have implications for reopeners, where buyers will increasingly shift away from oil-linked prices to the use of natural gas price indices, as has been the trend in Europe (particularly in the Northwest) in the post-shale era.

These market forces will also have spillover effects in related litigation and arbitration where natural gas market fundamentals play a key role, such as commercial disputes over production-sharing agreements, operating agreements, and transportation agreements; shareholder disputes related to disclosures to investors about market conditions; and bankruptcies and reorganizations where the current and forecast value of natural gas plays a fundamental role in valuation.



Note: Years prior to 2006 are not shown on the graph.
Source: *BP Statistical Review of World Energy, June 2017*, underpinning data.

Greater volatility and dispersion in worldwide gas prices will make arbitrage (i.e., transporting natural gas from cheaper markets to more expensive ones) a lucrative opportunity. We expect Europe to continue to be a barometer for the global LNG market, serving as a key market for surplus cargoes and a key hub of price competition between LNG and pipeline gas. ■

Challenges and Opportunities: Suspicious Order Monitoring of Prescription Opioids

The Suspicious Order Monitoring (SOM) requirement has become an important weapon in battling the opioid crisis in the United States.

CRYSTAL PIKE
MANAGING PRINCIPAL

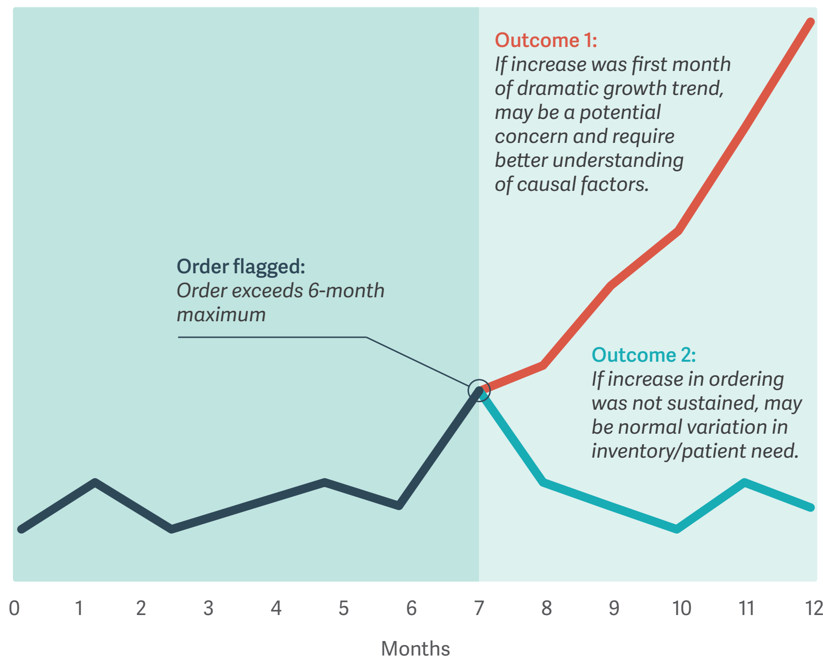
KENNETH WEINSTEIN
VICE PRESIDENT

First embodied in the 1970 Controlled Substances Act, the Drug Enforcement Agency's (DEA's) SOM requirement obliges any registered distributor of opioids to "design and operate a system to disclose … suspicious orders of controlled substances." Though the agency has provided little explicit guidance as to the meaning of this requirement, it nevertheless has set a stringent standard for enforcement.

This became clear when the DEA revoked the controlled substance license of Masters Pharmaceutical for failure to comply with the SOM requirement. Like other distributors, Masters used a statistical algorithm to screen and flag orders as potentially suspicious. Flagged orders were reviewed manually for reporting to the DEA. The agency's decision, upheld by the DC Circuit Court of Appeals, turned in part on whether Masters was using all available data and analytics to report the right orders.

The Masters case leaves some key questions unresolved. Are distributors required to obtain additional data beyond their own to uncover potentially suspicious orders? How can they make the appropriate decision with the information available to them? (See illustrative figure.)

Hypothetical Review of Order Flagged by Algorithm as Suspicious



Nor are the challenges confined to distributors. Recent investigations have targeted manufacturers for enforcement of SOM requirements as well. Unfortunately, each member of the pharmaceutical distribution chain that has a regulatory requirement to prevent diversion of controlled substances – manufacturer, distributor, pharmacy, and provider – is limited by the incomplete scope of the data available for it to observe.

The Masters decision put forward a requirement to "use the most accurate information available" for SOM. What constitutes "available," however, is not straightforward. With SOM being featured as a critical plank in the DEA's approach to countering the opioid crisis, there will no doubt be increased effort to meet these requirements. Effort alone, however, does not guarantee compliance, and the uncertainty over how recent settlements should be interpreted, as well as the difficulties in obtaining and employing relevant and timely data, present substantial challenges. ■

More than Dollars and Cents: Prescription Drug Pricing and Value

Policy solutions need to consider both the considerable value and significant budgetary challenges presented by high-priced prescription drugs.

NOAM KIRSON
VICE PRESIDENT

The rising cost of prescription drugs has been the subject of many recent headlines. However, a narrow focus on increased costs for the health care system alone, as opposed to the treatment's underlying benefits, fails to capture how innovative therapies may offer patients considerable value relative to existing therapies.

For instance, a relatively new – but more expensive – class of hepatitis C treatments offers substantial clinical benefits, and therefore a valuable return when measured by the quality-adjusted life years gained. The same is true for many other emerging innovative therapies, including certain cancer treatments and gene therapies for rare diseases. The key question regarding the value of a treatment is whether the higher cost is justified by an increase in clinical benefits, compared to existing treatments.

However, that is a different question than how to pay for an expensive new treatment. High-value treatments may well pose challenges to health care budgets, as was the case with the emergence of the new hepatitis C treatments. The fragmented nature of the US health care system makes this even more difficult, since the offsetting cost savings from improved treatment may not be realized for some time after treatment. As patients transition across payers and payer types, the payer who covers an initial treatment may not be the same one that realizes the benefits down the road. This can create disincentives for coverage.

To help address this pricing challenge, new payment mechanisms are being considered. One such innovative approach is the use of drug "mortgages," where a steep initial cost for a "one and done" treatment is amortized over many years. In this case, the benefits of such arrangements will likely be dependent on the therapeutic setting and type of payer. Another new approach is the growing interest in using outcome-based contracts, where manufacturers and payers negotiate payments and refunds that are closely tied to the benefits derived from the treatment. These arrangements can provide payers with greater predictability in the face of new treatments with uncertain outcomes.

Developing new models will require continued discussions between the different stakeholders, including manufacturers and regulators. ■

Video: Balancing Drug Pricing with Value

In a recent video, Vice President Noam Kirson further discusses why innovative drug pricing strategies are needed, and their potential benefits for both health care payers and manufacturers.

www.analysisgroup.com/health-care-videos

Building a Foundation for Essentiality in Standard Essential Patents

Legal and economic incentives can lead to an over-declaration of standard essential patents (SEPs); little work has been done to link patent value with essentiality.

JIMMY ROYER
VICE PRESIDENT

NICK DADSON
MANAGER

MARC VAN AUDENRODE
MANAGING PRINCIPAL

SEPs cover technologies that must be used in order to conform to a particular standard. SEPs trade off the competitive exclusivity afforded by a patent for a steady stream of royalties. Companies typically self-declare SEPs to standard-setting organizations (SSOs) and license their technology widely in exchange for a negotiated fair, reasonable, and non-discriminatory (FRAND) royalty.

Determining the value to place on the "essentiality" of a patent often is left to the companies negotiating a licensing agreement. If disputes arise between the parties, however, opposing legal teams may well find themselves presenting technical arguments on whether the technology at issue actually is essential to a standard.

Although academic research has found several patent attributes explaining economic or technological value, most studies assume that a patent declared as an SEP is, in fact, essential. In a recent project, Analysis Group studied the determinants of true essentiality for a specific technology by using a unique dataset of patent characteristics and independent technical assessments of essentiality. We then estimated regression models to assess the relationship between essentiality and variables that have been found to be important in explaining patent value.

For example, in making a declaration to an SSO, a patent holder can reference a specific section of the standard to which the patent applies and identify the patent family to which it belongs. Although companies are not required to provide this level of specificity, doing so in the appropriate circumstances could provide a more tangible foundation for defending the patent's essentiality in the future.

Understanding which factors or characteristics contribute to the acceptance of essentiality can also support efforts to reduce the rate of over-declaration. Companies are motivated to over-declare SEPs due to a combination of the risk of losing enforceability and the incentive to improve their bargaining position. By addressing the question of essentiality in advance, some uncertainty in SEP licensing, negotiation, and potential litigation may be reduced.

Reliance on SEPs to ensure interoperability will only become more urgent as Europe's data economy grows and the EU pursues the Digital Single Market. Greater analytical rigor in determining essentiality can inform both policy-making and questions of validity and scope, yielding important benefits for markets, competition, and innovation. ■

Analysis Group examined the relationship between essentiality of patents and a number of patent characteristics, such as:	
Declaration to a technical specification	Similarity of first claim
Forward citations	Patent declared first in family
Backward citations	Earliest declaration by year

Source: Royer, J., Van Audenrode, M., et al., *Over-Declaration of Standard Essential Patents and Determinants of Essentiality*, SSRN (2017).

Introducing Surveys into Evidence: How to Avoid Bias

Consumer surveys have been gaining prominence in an increasingly broad range of civil litigation.

REBECCA KIRK FAIR
MANAGING PRINCIPAL

LAURA O'LAUGHLIN
VICE PRESIDENT

ADAPTED FROM "ENSURING VALIDITY AND ADMISSIBILITY OF CONSUMER SURVEYS," BY REBECCA KIRK FAIR AND LAURA O'LAUGHLIN, PUBLISHED IN *CONSUMER LITIGATION*, WINTER 2017

Used in trademark infringement matters for decades, surveys are increasingly employed in cases involving mergers (to predict future consumer behavior), patents (to quantify damages), false advertising (to evaluate consumer harm), collusive behavior (to assess the impact on consumer demand), and employment-related class actions (to fill evidentiary gaps). When properly vetted, survey evidence can be a crucial component of a litigation strategy – especially in situations where other sources of data are unavailable.

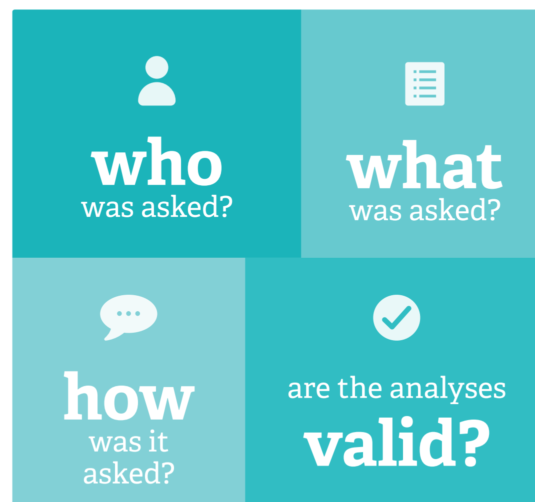
The relevance and usefulness of surveys submitted by experts in any legal context, however, are dependent on how they are designed and implemented. The avoidance of bias, either in fact or appearance, is central not only to a survey's admissibility, but also to the probative weight accorded to the survey expert's testimony. Three types of bias are especially relevant in this context.

Selection Bias. A key element of a reliable survey involves identifying the appropriate "universe" of respondents. If the sample is overly broad, the survey runs the risk of including results not relevant to the question at hand. If it is overly narrow, it may not give the trier of fact the full picture. Either misstep may lead to the exclusion of survey results from evidence.

Information-related Bias. An appropriate and admissible survey must ask the right questions in the right way. The phrasing of questions, methodology, experimental design, and survey administration all can be subject to scrutiny in a courtroom. Recent litigation outcomes also suggest that the survey expert's decision process in determining how questions are asked should be made as transparent as possible to the trier of fact.

Analytical Bias. Different survey and experimental designs require different methods to analyze the data. Analytical bias can enter if the analytical method doesn't match the design, or if the results are interpreted in ways that favor the researcher's own point of view. To help counter a jurist's natural skepticism about the subjective nature of surveys, survey experts and their teams should also be able to support the survey results with other evidence and analyses.

Survey evidence is likely to remain a crucial component of many litigation strategies. Following best practices to eliminate bias in survey design and implementation can significantly aid the case for the survey's admission and impact. ■



Recent Case Highlights

Below are some examples of the complex matters in which Analysis Group has recently worked with top law firms, Fortune Global 500 companies, health care organizations, and government agencies worldwide.

Health Care

Innovative Cancer Treatment Moves Forward

In a major step forward for precision medicine, the Centers for Medicare & Medicaid Services (CMS) issued a final National Coverage Determination (NCD) that allows patients to receive next-generation sequencing (NGS) tests for stages III and IV cancer. Now, all Medicare-eligible patients who are diagnosed with advanced solid tumor cancer may become eligible for tumor sequencing using DNA from tumor tissue. This will allow care providers to test for a large number of genomic alterations. The results can help physicians make more informed and individualized decisions about a patient's treatment regimen, which can lead to improved response rates and survival.

Among the tests approved for coverage was Foundation Medicine's FoundationOne CDx™. An Analysis Group team, led by Managing Principal Anita Chawla and Manager Marcia Reinhart, supported Foundation Medicine's NCD request. We provided a comprehensive review and synthesis of medical and scientific information on advanced cancer and settings in which FoundationOne CDx is expected to be used, the analytic and clinical validity of the test, and the clinical utility of NGS-based testing.

All Medicare-eligible patients who are diagnosed with advanced solid tumor cancer may become eligible for tumor sequencing using DNA from tumor tissue.

Antitrust & Competition

Cintas Acquisition of G&K Services Gains Approval

Cintas Corporation and G&K Services are two companies that provide services related to the rental and laundering of branded uniforms. Cintas sought to acquire all of G&K's outstanding shares for $97.50 per share in cash, for a total enterprise value of approximately $2.2 billion, including acquired debt. An Analysis Group team – including Managing Principal Rebecca Kirk Fair, Vice Presidents Emily Cotton and Peter Simon, and additional team members from several Analysis Group offices – was retained on behalf of both parties to evaluate the competitive effects of the acquisition. The Analysis Group team supported the process through the second request phase. The US Federal Trade Commission ultimately approved the acquisition with no divestiture requirements.

The FTC ultimately approved the acquisition with no divestiture requirements.

Statistics & Sampling

City of Milwaukee Settles ACLU Stop-and-Frisk Lawsuit

In Milwaukee, as in a number of other American cities, black and Latino residents have raised concerns that they are disproportionately stopped and frisked by police without reasonable suspicion. These complaints led to *Collins, et al. v. City of Milwaukee, et al.*, a lawsuit filed by the American Civil Liberties Union (ACLU) challenging the city's stop-and-frisk program on the grounds that it violated residents' rights under the Fourth and Fourteenth Amendments to the US Constitution.

The settlement included reforms intended to overhaul how Milwaukee police conduct, document, supervise, and monitor stops and frisks in the future.

Among the evidence the ACLU submitted to the federal court in the suit were expert reports by Analysis Group affiliate David Abrams of the University of Pennsylvania and criminal justice consultant Margo Frasier. An Analysis Group team including Vice President Shannon Seitz, Associates Rebecca Scott and Nick Vigil, and Senior Analyst Dylan Hurwitz worked with the ACLU and Covington & Burling LLP, supporting both Professor Abrams and Ms. Frasier. Professor Abrams's report concluded that, even after controlling for factors other than race and ethnicity, black people in Milwaukee are significantly more likely to be subjected to traffic and pedestrian stops and searched after being subjected to a traffic stop. Ms. Frasier's study concluded that, in a majority of documented traffic and pedestrian stops, officers had failed to identify individualized, objective, and articulable reasonable suspicion of criminal activity or vehicle equipment violations prior to conducting the stop.

The case was settled after a year and a half of litigation. The settlement included reforms intended to overhaul how Milwaukee police conduct, document, supervise, and monitor stops and frisks in the future.

Bankruptcy

Power Plant Owner-Lessors Prevail in Chapter 11 Proceeding

After filing for Chapter 11 bankruptcy, GenOn Energy, Inc. (GenOn) sought to undergo a restructuring that would swap most of its debt for equity. Prior to the bankruptcy proceedings, a dispute arose between GenOn and the owner-lessors of two power plants leased by GenMA, a GenOn subsidiary, regarding a change in credit support that GenOn was providing to GenMA in connection with the leases.

Milbank, Tweed, Hadley & McCloy LLP retained Analysis Group on behalf of the owner-lessors to determine whether GenOn complied with covenants specified in the leasing arrangement for the plants. Managing Principal Michael Holland and Vice President Edi Grgeta supported our affiliate – Robert Grien, a leveraged finance expert – who examined topics related to compliance certificates, letters of credit, and fixed-charge coverage ratios from the perspective of commercial reasonableness. Mr. Grien submitted an expert report and delivered expert testimony at deposition and at the bankruptcy court hearing. Mr. Grien opined on GenOn's alleged violations of the covenants, the harm suffered by the owner-lessors, and the commercial unreasonableness of the alternative, less-valuable credit support provided. He also provided analysis showing that GenOn's change in methodology for calculating a critical financial covenant was commercially unreasonable.

The court ruled that the owner-lessors had exposed serious wrongdoing by GenOn, and that their claims challenging the improper transfers and related misconduct would have to be "carved out" of any GenOn reorganization. This ruling led to a global settlement that provided the owner-lessors with increased credit support and deleveraging of GenMA that enhanced the value of the owner-lessors' positions.

Antitrust & Competition

Defendants in ODD Cartel Litigation Awarded Summary Judgment

In a long-running, global, and multi-district litigation charging that optical disk drive (ODD) manufacturers conspired to fix prices, defendant companies Samsung, Toshiba, BenQ, and Samsung and Toshiba joint venture TSST received a summary judgment in their favor. While many other cartel matters involving various computer components have lost at summary judgment, in this case Judge Richard Seeborg of the US District Court for the Northern District of California found that plaintiff companies failed to show the alleged scheme targeted them specifically and that indirect purchasers failed to prove harm.

An Analysis Group team – led by Managing Principal Crystal Pike and Vice President Mark Lewis, and including CEO and Chairman Martha Samuelson – worked on behalf of the joint defense group, which originally comprised several defendants in addition to the four that sought summary judgment. Managers Yao Lu, Federico Mantovanelli, David Toniatti, and Kristof Zetenyi were also core members of the team.

The Analysis Group team supported affiliate Edward Snyder, Dean of the Yale School of Management, on damages issues. Professor Snyder authored merits reports in seven outstanding cases, in which he estimated overcharges, estimated average pass-on rates, calculated purchase volumes relevant for damages, and combined these estimates to calculate estimated damages. He also directly rebutted the expert reports of seven plaintiffs' experts.

... plaintiff companies failed to show the alleged scheme targeted them specifically and ... indirect purchasers failed to prove harm.

In issuing summary judgment, Judge Seeborg ruled that "[e]ach case fails … for lack of proof of causation and/or cognizable injury," writing that the indirect purchasers fell "woefully short of meeting IPPs' burden to show proof of pass-through." The decision also covered important rulings on the Foreign Trade Antitrust Improvements Act (FTAIA), with the judge excluding non-US sales; and on vicarious liability, with parent company Samsung not held liable for its joint venture with Toshiba.

Intellectual Property

Technology Company Secures Favorable Jury Verdict in Patent Infringement Case

Maxell and Mayer Brown retained two Analysis Group teams to analyze damages due to the alleged infringement of several patents related to technology used in mobile devices. Maxell asserted that several models of ZTE smartphones and tablets infringed patents related to a variety of features, including power management, wireless communications, and GPS/mapping functions.

An Analysis Group team, led by Vice President Lindsay Greenbaum and Manager Ashley Zhou, supported Managing Principal Carla S. Mulhern in evaluating reasonable royalty damages associated with the asserted patents. Using a hypothetical negotiation framework, Ms. Mulhern estimated total reasonable royalty damages due to Maxell of $43.3 million. A second Analysis Group team, led by Principal Robert Vigil, Vice President Kristina Shampanier, and Associate Duo Jiang, supported affiliate Tülin Erdem of the NYU Stern School of Business. Professor Erdem conducted a survey of over 1,000 smartphone and tablet owners to assess the awareness and relative importance of a feature disclosed in one of the asserted patents. Ms. Mulhern used the results of the survey to inform her analysis of reasonable royalty damages. The jury found that the asserted patents were valid and infringed by ZTE, and awarded Maxell damages of $43.3 million.

Valuation

Court Concurs with Academic Affiliate's Valuation in Merger Appraisal

In the appraisal dispute of Solera Holdings Inc.'s 2016 sale to private equity firm Vista Equity Partners LP, Chancellor Andre G. Bouchard favorably cited reports by Analysis Group affiliate R. Glenn Hubbard of Columbia Business School as supporting evidence in the decision.

Stockholders who opposed the purchase price of $55.85 per share sought a court appraisal, claiming that the fair value of their shares was $84.65 per share. On behalf of Solera and supported by an Analysis Group team – including Managing Principal Bruce F. Deal, Vice President Michael Cliff, and Manager Andrew Clarke – Professor Hubbard appraised the shares of common stock. He testified at trial that the deal price, adjusted for synergies ($53.95), provided the most reliable evidence of fair value. This was corroborated by a nearly identical valuation from a discounted cash flow (DCF) analysis that properly accounted for the investment needed to support growth in the terminal period.

After considering nearly 1,000 trial exhibits, including 14 deposition transcripts and the live testimony of four fact witnesses and three expert witnesses, Chancellor Bouchard ruled that he "independently has come to the same conclusion" as the "respondent and its highly credentialed expert" that the "market-generated Merger price, adjusted for synergies" is the "best evidence of Solera's value" as of the date of the merger. While the Solera ruling is a continuation of the string of cases using deal price as the anchor point for fair value, it is perhaps the first to subtract synergies in a private equity transaction.

	Deal Price	Stockholder Valuation	Our Expert's Valuation	Ruling Price
Solera Per-Share Stock Price	$55.85	$84.65	**$53.95**	**$53.95**

Energy & Environment

Department of Justice Wins Waste Management Merger Case

Following a two-week bench trial, US District Judge Sue Robinson ruled against EnergySolutions, Inc.'s proposed $367 million acquisition of Waste Control Specialists, two close competitors in the specialized business of low-level radioactive waste disposal. Judge Robinson's opinion represents a relatively rare instance of an antitrust merger case proceeding to trial.

In the trial, the US Department of Justice (DOJ) argued that the merger would unacceptably reduce competition without delivering the financial benefits the companies were claiming. The DOJ retained Analysis Group affiliate John Mayo of Georgetown University as its testifying expert. Supported by an Analysis Group team – including Managing Principal T. Christopher Borek and Vice Presidents John Browning and Maria Garibotti – Professor Mayo analyzed market definition, finding that the proposed transaction would substantially increase concentration in the relevant markets and would eliminate the close, head-to-head competition that has demonstrably benefited customers.

US District Judge Sue Robinson ruled against EnergySolutions, Inc.'s proposed $367 million acquisition of Waste Control Specialists.

Republic of Cyprus Prevails in International Arbitration

An International Centre for Settlement of Investment Disputes (ICSID) panel dismissed a €1.05 billion claim against the Republic of Cyprus lodged by a Greek investment company and other former shareholders in a Cypriot bank. The Cypriot government acquired majority ownership in the Cyprus Popular Bank in a €1.8 billion recapitalization in 2012, amid fears of default due in part to exposure to Greek bonds during that country's debt crisis. The bank was placed in administration the following year, and deposits over €100,000 were made subject to a levy as part of a rescue agreement between Cyprus and the European Commission, the European Central Bank, and the International Monetary Fund.

An ICSID panel rejected the shareholders' claims, holding that Cyprus had not breached any international obligations.

The investment company Marfin Investment Group and other former shareholders brought an ICSID arbitration claim challenging Cyprus's regulation of the bank, including the Central Bank of Cyprus's decision to remove management and the terms of the 2012 recapitalization. Analysis Group affiliates Jean-Pierre Landau and Andrew Metrick, supported by a team led by Vice President Steven Saeger and including Manager Andrew Ungerer, filed joint expert reports and provided testimony that addressed the reasonableness of the actions of the Cypriot authorities in the context of the European debt crisis.

An ICSID panel rejected the shareholders' claims, holding that Cyprus had not breached any international obligations. The panel also awarded the Cypriot government €5 million in legal costs.

Investment Manager Prevails in Landmark Securities Case

In what has been described as the largest administrative case in US Securities and Exchange Commission (SEC) history, investment manager Lynn Tilton and her company, Patriarch Partners, were successful in having SEC allegations of misconduct and fraud against them dismissed. The case focused on three collateralized loan obligations known as the Zohar Funds, which had raised $2.5 billion. Money from the funds was used by Ms. Tilton to buy or make loans, primarily to private, midsized distressed companies. The SEC claimed that Ms. Tilton disregarded disclosure requirements by characterizing the loans "however she personally saw fit, without disclosure to investors." The SEC also alleged that Ms. Tilton hid the true financial conditions of the companies that collateralized the loans and that she enriched herself at the expense of her investors.

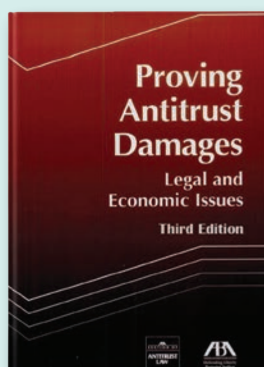
Working with Ms. Tilton's counsel, an Analysis Group team supported testimony by affiliates R. Glenn Hubbard, Thomas Lys, John Dolan, and Steven Schwarcz. The defense experts collectively provided analysis to show that allegedly concealed information was, in fact, disclosed to (or reasonably known by) investors, and that the funds were managed in a manner consistent with Ms. Tilton's distinct business strategy. In a 57-page opinion, Administrative Law Judge Carol Fox Foelak agreed, dismissing all the charges and noting that Ms. Tilton's reports neither omitted nor misrepresented any material facts.

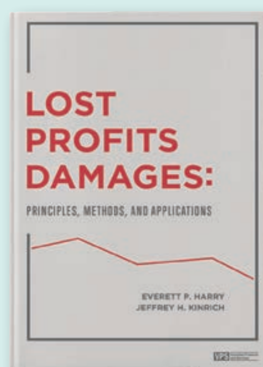
In what has been described as the largest administrative case in SEC history, investment manager Lynn Tilton and her company were successful in having SEC allegations of misconduct and fraud against them dismissed.

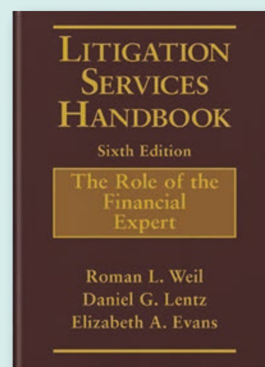
Our team included Managing Principal Maureen Chakraborty, Principal Elizabeth Eccher, and Vice Presidents Duncan Fung and Lindsay Greenbaum. ■

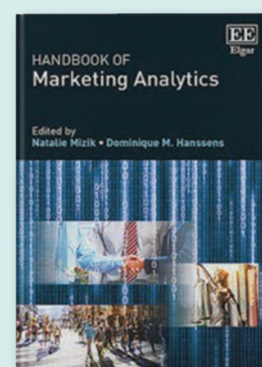
Contributions to Recently Published Books

Below is a selection of new books to which Analysis Group has contributed multiple chapters.









Proving Antitrust Damages: Legal and Economic Issues

A comprehensive resource, this updated third edition – including chapters by Jeffrey A. Cohen, George Kosicki, Divya Mathur, Dov Rothman, and David Smith – presents an accessible overview of both conceptual and practical issues associated with proving damages in antitrust cases, with expanded content addressing the economic principles underlying the measurement of damages.

Lost Profits Damages: Principles, Methods, and Applications

A single-source reference for those interested in litigation issues associated with lost profits, damages, and business valuation, this book includes the work of 45 experts, including nine Analysis Group authors, covering a comprehensive range of topics such as selecting appropriate methodologies, carrying out analyses, and defending work during a legal proceeding. Coedited by Jeffrey H. Kinrich, it includes contributions from Elizabeth A. Eccher, John C. Jarosz, Rebecca Kirk Fair, James Rosberg, Peter Rybolt, Bruce A. Strombom, Robert L. Vigil, and Aaron Yeater.

Litigation Services Handbook

The sixth edition of this book – with contributions from Kevin Gold, Mark A. Gustafson, D. Lee Heavner, Eric Korman, R. Jeffrey Malinak, Justin N. McLean, Ahmer Nabi, and Peter P. Simon – functions as a reference on the role of experts in litigation matters. It offers guidance on case-specific approaches used by experts, explanations of how trials are prosecuted, details on case law, and an expanded section on the role of technology in investigations.

Handbook of Marketing Analytics

This book features chapters by Rene Befurt, T. Christopher Borek, Rebecca Kirk Fair, Laura O'Laughlin, Anjali Oza, and Alan G. White. It showcases analytical marketing methods and their real-life applications in marketing management, public policy, and litigation support. Multidisciplinary in scope, the volume covers experimental and non-experimental methods, as well as their digital-era extensions through topics such as econometrics, causality, and machine learning. ▪

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Featured Affiliated Experts in This Issue

David Abrams *p. 17*
University of Pennsylvania

John Dolan *p. 20*
Independent Consultant

Tülin Erdem *p. 18*
NYU Stern School of Business

Robert Grien *p. 17*
TM Capital

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Columbia Business School

Jean-Pierre Landau *p. 20*
Sciences Po

Thomas Lys *p. 20*
Kellogg School of Management
at Northwestern University

John Mayo *p. 19*
Georgetown University

Andrew Metrick *p. 20*
Yale School of Management

Steven Schwarcz *p. 20*
Duke University School of Law

Edward Snyder *p. 18*
Yale School of Management

For a list of our academic affiliates and experts, visit our website.
The opinions expressed by Analysis Group affiliates do not necessarily reflect the views of the firm.

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ECONOMIC, FINANCIAL and STRATEGY CONSULTANTS

ABOUT ANALYSIS GROUP

Analysis Group is one of the largest economics consulting firms, with more than 850 professionals across 14 offices in North America, Europe, and Asia. Since 1981, we have provided expertise in economics, finance, health care analytics, and strategy to top law firms, Fortune Global 500 companies, and government agencies worldwide. Our internal experts, together with our network of affiliated experts from academia, industry, and government, offer our clients exceptional breadth and depth of expertise.

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