



### **Interview with Renata Hesse, Deputy Assistant Attorney General, Antitrust Division, U.S. Department of Justice**

In this interview, DAAG **Renata Hesse** discusses the relationship between antitrust and IP law, including patent holdup concerns and the recent IEEE business review letter, the Division's victories in the *American Express* and *Bazaarvoice* litigations, the relationship between the DOJ and FTC, and the Division's approach to merger review.

### **Extradition in International Antitrust Enforcement Cases**

**Mark Krotoski** surveys the history and describes current examples of how the Antitrust Division has used extradition to combat international cartel activity. He describes key considerations relevant to the extradition process and predicts that more extraditions to the United States for antitrust violations are likely.

### **No Mistake About It: The Important Role of Antitrust in the Era of Big Data**

**Allen Grunes** and **Maurice Stucke** discuss antitrust concerns relating to big data. They identify and debunk various myths about big data and argue that the U.S. antitrust agencies should take a closer look at the behavior of big data companies and coordinate with privacy and consumer protection counterparts.

### **The Voice of the Consumer in the Courtroom: How "Big Data" Can Improve Injury Evidence in Lanham Act False Advertising Cases**

**Jeff Armstrong** explains how the use of big data can help demonstrate causation and long-term harm in Lanham Act cases. Advances in consumer data analytics can provide rigorous empirical evidence about the impact of alleged misrepresentations on consumers, a boon for plaintiffs pursuing such claims.

### **Paper Trail**

Editor **John Woodbury** discusses two recent papers by **Jonathan Baker** examining the effects on innovation from efforts to reduce exclusionary practices by dominant firms. Woodbury opines that these papers provide useful insights into how competitive interactions in the presence of exclusionary conduct affect innovation and the evaluation of the appropriability defense.

## Interview with Renata Hesse, Deputy Assistant Attorney General, Antitrust Division, U.S. Department of Justice

**Editor's Note:** Renata B. Hesse is Deputy Assistant Attorney General for Criminal and Civil Operations at the U.S. Department of Justice's Antitrust Division. From November 16, 2012, until the confirmation of Assistant Attorney General Bill Baer, Ms. Hesse served as Acting Assistant Attorney General for the Antitrust Division. She joined the Antitrust Division in March of 2012, having previously served as Senior Counsel to the Chairman for Transactions at the Federal Communications Commission, where she oversaw the Commission's investigation of AT&T's proposed acquisition of T-Mobile, and as a partner in the Washington, DC office of Wilson Sonsini Goodrich & Rosati from 2006 to 2011. In this interview with The Antitrust Source, DAAG Hesse discusses patent holdup and other antitrust/IP issues, the recent victories in the American Express and Bazaarvoice litigations, the DOJ's relationship with the FTC, and the Division's approach to merger review. This interview was conducted on March 17, 2015.

**THE ANTITRUST SOURCE:** Let's start with a topic in which you've been very visible—the intersection of antitrust and intellectual property. How has the Supreme Court's decision in *Actavis* influenced how the DOJ thinks about the relationship between antitrust and intellectual property?



**RENATA HESSE:** I should first note that the FTC typically takes the lead in antitrust enforcement in the pharmaceutical industry, so the decision is likely to impact the FTC's enforcement activity more than the Division's in the first instance. That said, we're obviously watching developments in this area and considering potential impacts of the decision outside of the Hatch-Waxman context. In fact, as the Acting Assistant Attorney General at the time, I had the privilege of signing the government's Supreme Court brief, along with the FTC and the Solicitor General, which was a thrill.

The case itself is interesting in that the Court recognized that it's conceivable that there's a competitive mechanism here that's being harmed and we should let people explore that by applying the rule of reason. The Court didn't provide detailed guidance about how lower courts should apply the rule of reason in this context. So part of what we're going to want to watch is what the district courts do with that, and what the implications of those cases are for our work. But I don't expect a direct impact on us.

More generally, everybody is, and for a long time has, struggled with this intersection point between two bodies of law that to my mind are very coherent and work together to foster innovation and protect consumer welfare. Ultimately, I believe that they are not in tension with one another. Rather, it's sort of two sides of the same coin driving towards more innovation and more benefits for consumers. They just get to that endpoint in slightly different ways.

**ANTITRUST SOURCE:** Between the Supreme Court's decision in *Actavis* and the United States Trade Representative's disapproval of the ITC's exclusion order in the *Samsung v. Apple* ITC litigation, do you think there has been a bit of a rebalancing of the relationship between antitrust and intellectual property?

**RENATA HESSE:** I think that's right. Think about the IP laws and the very narrow ways in which the use of IP can be found to be an antitrust violation. That list has been very, very small for a very long time. What we're seeing recently is an acknowledgment that while an IP right is incredibly important and paramount when it's unencumbered, IP rights can nevertheless also be used in ways that harm competition and consumers.

So, I wouldn't say it's tipping in favor of antitrust but rather that things are moving toward something that is closer to a better balance between the two. Of course, some of the patent lawyers who I interact with have been more than willing to tell me that they take a different view of these developments.

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**ANTITRUST SOURCE:** Let's talk about the DOJ's Business Review letter to the Institute of Electrical and Electronics Engineers, in which the DOJ took the position that it was not likely to challenge this organization's IPR policy, which, among other things, recommends consideration of the smallest saleable unit when defining a reasonable rate and states that a reasonable rate shall not reflect the value of the standard. Can you talk about the DOJ's current thinking on when conduct related to licensing terms may violate the antitrust laws?

**RENATA HESSE:** We continue to look at that issue. We haven't done any enforcement in that area, although we have done a lot of competition advocacy.

In the cases that have happened in the past—*Rambus, Unocal, Dell, Qualcomm/Broadcom*—there's some element of deception at the standard-setting body and people have relied on that element of deception to say that the competitive process when the standard was being set was perverted so that that competition between technologies vying for inclusion in the standard was harmed. And that's been the hook for the antitrust laws.

But I've said before that under some circumstances there likely is the potential for a Section 2 violation even in the absence of deception at the time the standard was set. So, say you don't engage in deception in the standard-setting context and you make a FRAND commitment that you intend to abide by. Then, five years later you decide that you really need some additional revenue, whatever the reason is. And suddenly FRAND doesn't mean quite the same thing that you let people think it meant when they agreed to include your technology in the standard.

The end result to the consumer is the same, and the holdup, in my view, is the same. So, while it's analytically a little bit more challenging, I've often said I would love for people to think about it and bring us fact patterns that they think merit enforcement under Section 2. I do think the consumer welfare effect ends up being equivalent, and that says to me that if we can find a fact pattern where we feel like we can show harm to consumers, we shouldn't shy away from that.

**ANTITRUST SOURCE:** Then what would be the right way of thinking about market or monopoly power in that context?

**RENATA HESSE:** In that situation you would be talking about monopolizing or exercising market power in the upstream technology markets. And, depending on the facts you could also find market power in the downstream market. But if you're thinking about what's happening at the standard-setting level then you're thinking about upstream.

**ANTITRUST SOURCE:** What is the DOJ's current thinking on bringing antitrust cases where standards-essential patent holders are pursuing injunctive relief?

**RENATA HESSE:** U.S. federal courts have made a lot of progress in this area. It's pretty well settled under *eBay*, and the cases that have followed it, that the likelihood of getting an injunction on a standards-essential patent subject to a FRAND commitment in the United States is pretty low.

We're still watching the ITC's approach to exclusion orders, but in district courts I would not expect to see a lot of injunctions being issued.

**ANTITRUST SOURCE:** Since the only remedy at the ITC is injunctive relief does that mean that any standard-essential patent holder who files suit at the ITC against a patent infringer is essentially engaged in an anticompetitive practice?

**RENATA HESSE:** No. Obviously, this is going to depend a lot on what's going on in the negotiations. What the Administration has said through Ambassador Froman is that you've got to look carefully to see what's actually happening in these negotiations.

As I said the other day on a panel, you have these two polar extremes in this debate. On the one hand, there are certain patent holders who say people are holding out on me, they're not negotiating with me. And on the other hand, there are certain implementers who say I'm being held up.

I inhabit the middle ground in this debate. First, it's important that we all recognize that both patent holders and implementers (who often have substantial patent portfolios of their own) are innovators. I don't think one group can rightly claim that title. Second, it's my view that we're in the midst of a transition or perhaps at an inflection point. There are a lot of different things going on that are causing there to be a real imbalance in the expectations of the potential licensors and potential licensees over the value of the patents. And what both the Division and the courts have done has been to provide at least a framework that people can use to think about how those negotiations should go.

I expect that eventually we'll come out of this to a world where once again parties go into a negotiation and everybody has kind of the same idea of what the value proposition is when you're negotiating for royalties.

**ANTITRUST SOURCE:** What is your current thinking on the framework that governs determining when parties cross the line in licensing negotiations?

**RENATA HESSE:** The factors discussed in the Joint DOJ/PTO Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments reflect our current thinking. Last summer, the Division also participated with others in the Administration in crafting the U.S. contribution to the Telecommunications Standardization Advisory Committee to the International Telecommunications Union (<http://www.nist.gov/standardsgov/upload/T13-TSAG-C-0043-A1-r1-E.pdf>). That submission lays out a useful framework and provides explanatory text that reflects our approach to these issues. I'll note, though, that it was created in a context—the ITU—where it would apply outside of the U.S. so it does not line up perfectly with current U.S. case law. Instead, the submission tried to accommodate the law of jurisdictions that approach the IP/antitrust intersection differently than the U.S. But those are the two places where you can see a public position on this issue.

What I personally have been looking for are situations where it's pretty clear that the licensee is willing to pay a reasonable royalty and what's really going on is that the parties just can't agree on how much the license is going to cost.

So, they're willing to pay. They're not bankrupt. They're not causing you to chase them all over the world, and you just are having an argument over money. Where you're effectively having an argument over the royalty—that does not seem to me to be the place for an injunction.

**ANTITRUST SOURCE:** One of the points in the IEEE Business Review letter is that if a patent holder does not like the policies of a standard-setting organization then they can simply go to another. Do you think that's realistic given how large some of these institutions are—for example, IEEE has 400,000 members in 160 countries?

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**RENATA HESSE:** So, here's what I think. There probably should be competition among standard-setting organizations for setting rules and policies that people think are best suited to their licensing needs. So it's good for standard-setting organizations to experiment with different solutions as driven by their members and governing bodies.

Whether or not people will vote with their feet I don't know. I mean there is at least one company that has publicly said it will. So, we'll watch and see what happens.

To me it's going to be interesting to see what happens with the IEEE policy and what impact it has because I can't really predict that. I do believe that it's a good thing that the policy gives people a little bit more certainty about the framework that they're working in.

**ANTITRUST SOURCE:** FTC Commissioner Wright commented last month that the IEEE Business Review Letter was more a reflection of policy choices than legal analysis. What is your reaction to that?

**RENATA HESSE:** I have to say I'm a little confused by it, to be honest. I understand that Commissioner Wright may not hold the same policy views that the Division holds in this area. But, the business review letter was not an endorsement of any particular policy solution. It was an answer to a pretty narrow question, which is whether or not the Division would be likely to take an enforcement action if the IEEE adopted the proposed patent policy. In any event, I believe that Commissioner Wright has said that our business review letter reached the right answer.

So I'm not exactly sure what he's quibbling with, other than maybe he thought our application of the reasonableness analysis had some policy orientation in it that he found inappropriate. But the business review letter is a pretty straightforward application of the rule of reason to the particular provisions that we were asked to review.

**ANTITRUST SOURCE:** Do standard-setting organizations need to adopt an IPR policy and one perhaps that is in line with the IEEE to limit their antitrust risk?

**RENATA HESSE:** No. We have been very open about encouraging standard-setting organizations to clarify the meaning of RAND or FRAND depending on where you are in the world. And I think it would be a good thing for the marketplace if people did that. It will bring some certainty to this world we were talking about before, where people are coming to the table with very different points of view on what the value of a given patent is. And clarifying FRAND and what it means and clarifying what "reasonable" means will help.

And the sooner people get to a point where they're both speaking the same language the better, because we'll have fewer disputes and consumers will not suffer from either hold up or hold out, depending on which you choose to believe is going on.

So it would be a very good thing for SSOs to do, and I'm hopeful that people will continue in their efforts to do it, but I certainly don't think there's one answer for all SSOs. And I don't necessarily think that the IEEE answer is the right answer for others. I think it is an answer and it's the one that the IEEE Board and its members thought was the right one for that organization.

**ANTITRUST SOURCE:** This is an issue that you've been very invested in personally. Why is that?

**RENATA HESSE:** I actually started out as an IP lawyer, and so this has always been an area that's been of interest to me. I also have historically worked a lot in the technology sector and the telecom sector in particular. As a consequence, this was a subject matter that was innately interesting to me and an industry sector that I was familiar with. And I kind of like it; it's fun and interesting and it's important. But I don't have a personal agenda here, other than trying to ensure that consumers get the benefits of competition and do not see higher prices or less innovation as a result of conduct that harms competition.

**ANTITRUST SOURCE:** Switching gears to another recent development, the Division recently had a significant win in the *American Express* case. In that case, the DOJ prevailed on a theory where it alleged that American Express had market power based in part on the fact that it had 26 percent of the general purpose credit card market. What are some of the lessons that can be learned from the court's decision in that case?

**RENATA HESSE:** First I should say that I didn't participate in the matter, so I'm going on public information. To me, the biggest thing that the case says is that competitive effects matter. If you have a company that has the ability to exercise a significant amount of market power even though they have a market share in the 25 percent range, that's still going to be important.

**ANTITRUST SOURCE:** In cases where a firm's market share is less than one might traditionally think of as creating market power, what is the DOJ's approach to analyzing market power? Is there specific conduct or effects that you look for?

**RENATA HESSE:** I don't really think so. I tend to think that we approach most of these cases in the same way. In terms of unilateral conduct, we're looking to see whether the facts show that there is an exclusionary mechanism that allows a company to exert power over output or price.

Certainly with lower market shares you could spend some time grappling with that issue and testing the proposition of market power, but I don't think we approach the investigation differently or look for different kinds of things.

**ANTITRUST SOURCE:** You have mentioned the role that economics plays in your decision-making. Can you talk about the role that the Economic Analysis Group plays in your case evaluation and investigations?

**RENATA HESSE:** They are a phenomenal resource. When I left the Division after my first tenure here, I was so sad to leave behind colleagues in EAG who I'd worked with a ton, and who I could just pick up the phone and call. They are with us in every matter from the very beginning and are extremely well integrated into our teams. They and their analyses form a core part of our decision-making process.

And Nancy Rose, our new economic DAAG, is terrific to work with. Unless she's recused, she is part of every significant decision we make. All of the lawyers at the Division rely on EAG to help us figure out whether or not what we're thinking from a legal perspective actually makes sense from an economic perspective.

In today's world, the role of economics has become so significant in both the merger and the non-merger contexts, and sometimes in the criminal context too. If the economists are questioning whether the conclusion that the legal staffs are coming to is the right conclusion, that is an important signal that we need to slow down and think hard about what we're doing.

**ANTITRUST SOURCE:** Let's shift to the DOJ's win in the *Bazaarvoice* litigation. There, the DOJ successfully pursued a case based on a theory that relied in part on the fact that the merging parties were each other's closest competitors. Is there an increased focus now in looking at mergers through the lens of closest competitors?

**RENATA HESSE:** I don't think we have increased or changed our focus. I should mention that I didn't participate in the Division's enforcement action against Bazaarvoice. But we are always looking to try to find an answer to the question of how close the competition is between the merging parties. That's something we were definitely focused on during my previous tenure with the Division. So I don't think there's something new there.

I'm trying to think about *Bazaarvoice* and whether there's a lesson there. It is clear from the public information that in that case you have some pretty bad documents that were created in the regular course of business. They can tell you something important about the closeness of competition even where some customers might say that there are substitutes or that they aren't worried about the consolidation.

I'm going to transition a little bit from the question you asked to another more general point about the case. If you look at those documents and you look at the structure of the market, it leads one to wonder why the companies thought the deal would survive antitrust scrutiny. And you could say the same thing about *NCM/ScreenVision*, which was the recently abandoned movie screen advertising case.

Both of those cases are illustrative of the point that when companies are in the board room thinking about strategic deals—and which ones are likely to pass muster and which ones aren't—people should think about those two cases and consider whether or not the transaction they are contemplating might fall into that same category.

**ANTITRUST SOURCE:** Is there a temptation in a case like *Bazaarvoice* when you see such bad documents to pursue a case just based on the bad documents alone? Can you talk about other factors that you consider (if any) in a case with bad documents?

**RENATA HESSE:** First, we don't just say oh, bad documents let's go sue these people. And as I recall—and again I was not working on it—the Division did a lot of work on the *Bazaarvoice* matter before we decided to challenge the deal.

There is always a desire on our part to make sure that what we're doing is the right thing and to fully vet that conclusion in as many ways as we can. As I mentioned, consulting with the economists in EAG is a key part of that vetting. And I know that our staff attorneys and economists take seriously their obligation to reach the right outcome.

And, in the Front Office, we do another round of poking and prodding. We have a lot of meetings with the staff. We do a lot of looking at memos and economic analyses. We review party doc-

uments and depositions, and think hard about whether or not invoking the power of the U.S. government is the right thing to do in a particular circumstance. It is important that we never forget that the power we wield is very, very significant.

Everyone at the Division understands that and takes that responsibility very seriously. So, no, we try not to get carried away just because there are some nice documents.

**ANTITRUST SOURCE:** After the 2004 loss in *Oracle/PeopleSoft*, the DOJ went quite a long time without litigating a trial until the 2011 win in *H&R Block/TaxAct*, which appears to have really reinvigorated the DOJ's approach to litigation. Why do you think the Division has become so active from a litigation standpoint? Is it willing to take more risks?

*So maybe part of the answer to your question is that we are seeing more activity where there are arguments on both sides and each side believes that it is right on the merits and that a settlement isn't possible. And, at the same time, we could also be seeing more transactions where companies believe it is worth taking a shot at getting them through, even if that means*

**RENATA HESSE:** It's an interesting question. First, most of the cases we take to trial are not easy cases because the easy cases are either abandoned or settled or we don't challenge them. As a consequence, the cases that we do try are usually the challenging ones. So maybe part of the answer to your question is that we are seeing more activity where there are arguments on both sides and each side believes that it is right on the merits and that a settlement isn't possible. And, at the same time, we could also be seeing more transactions where companies believe it is worth taking a shot at getting them through, even if that means going to court—as was apparently the case in *Bazaarvoice* and *NCM/ScreenVision*.

Second, *Oracle/PeopleSoft* was one of my cases, and I've thought a fair amount about whether or not losing that case caused people to step back and think twice about litigating. It's inevitable that, when you lose a case, it does make you stop and think about whether or not you've been thinking about mergers the right way. That kind of introspection or reexamination is a good thing in my view. I think the Division did spend some time after that case thinking through how we look at unilateral effects and becoming a bit more rigorous about how we explain the economics and present our evidence of unilateral effects. You can see some of that work in the 2010 revisions to the Merger Guidelines.

We've also redoubled our efforts to make sure that when we go to trial people take us seriously and understand that the threat of litigation is real and that we can and will maximize the possibility of winning. Over the past six years or so, we've taken steps to strengthen our litigation capabilities. We have created two new senior positions. Mark Ryan has been our Director of Litigation and Dave Gelfand is our Litigation DAAG. Part of what those guys do is spend a lot of time working with the teams, helping them to assess whether litigating is the right thing to do and deciding how we will litigate the case if that is what we decide to do. They've also been great at training people and working with people to enhance both our pre-litigation skills and also our litigation skills. So we've gotten better at it. And we've been winning, and that always helps.

**ANTITRUST SOURCE:** What is the DOJ's current thinking about the role of customer testimony in a merger case? Has your approach evolved since *Oracle/PeopleSoft*?

**RENATA HESSE:** I don't think so. I have always felt, and I continue to feel, that customer testimony is very, very important. But the quality of the testimony is also very important. For example, hundreds of one-paragraph declarations solicited by the merging parties may not be terribly persuasive. But there are often customers who understand the relevant market and how competition works, and who can explain in a concrete way how the loss of competition that a merger will cause will harm their ability to obtain better products and/or better prices. That kind of testimony means something to us, and it should.

When customers are worried about a transaction we should pay a lot of attention to that. At the same time, we can't simply take customer testimony at face value. We need to test the factual basis of their concerns. So we have to be careful about vetting what customers are saying and making sure that their testimony and their views are demonstrative of harm to competition and not just reflective of a desire to get a better deal out of the merging parties.

And we do a good job of that. I don't think that's changed very much. We continue to talk to customers routinely and we continue to take their views seriously and that's the right approach. The judge's discounting of the customer testimony in the *Oracle* case was unfortunate because that testimony reflected a well-founded competitive concern.

**ANTITRUST SOURCE:** How do you think about time horizons in the merger context? Is the default still two years?

**RENATA HESSE:** Well, the 2010 revisions to the Horizontal Merger Guidelines removed the specific reference to a two-year horizon for entry. In many cases, though, two years turns out to be a reasonable time horizon. But there isn't a bright line here, where if you're at one year and 364 days you get counted and if you're two years and 25 days you don't get counted.

There is a certain amount of discretion and judgment that we use in terms of trying to figure out when we're going to take factors like entry into consideration. So it doesn't surprise me that there have been situations where people have looked at longer or even shorter time horizons.

It's going to depend a lot on the marketplace, the ways we think the market is going to move, how much harm we think is going to happen in the interim. We try to be as transparent as possible about our approach to these issues.

**ANTITRUST SOURCE:** Continuing with mergers, let's talk about timing agreements. In several recent investigations that we are aware of, the DOJ has asked at the beginning of the Second Request process for as much as 90 days on the back end. Could you elaborate on the thinking behind that practice?

**RENATA HESSE:** As you know, the HSR Act gives us a minimum of 30 days to review the transaction once the parties have certified compliance. Frequently, it is in both our and the merging parties' interest to determine a timetable for review that goes beyond those 30 days. Coming to an agreed timetable arises out of a desire on the part of the Division and the parties to bring some certainty to how long our review will go and the steps along the way before we arrive at a resolution point. These timetables are formalized in timing agreements, which not only give us extra time to conduct our review, but also guarantee the parties certainty as to meetings with staff, DAAGs, and the AAG during a particular timeframe, and assurance from the Division that we will identify any deficiencies in a party's productions within a particular number of days, among other things.

We recognize that determining a timetable for review by way of a timing agreement is a negotiation. Where they have more flexibility as to the closing of their transactions, parties often see advantages to giving us more time. Of course, parties are free to enter into a timing agreement with the Division, or to decline to do so, and certainly we do have cases where parties have declined to enter into a timing agreement because extending our review doesn't make sense for them timing-wise because of other aspects of their deal. We are certainly sensitive to these timing issues and strive to work with parties who face them. When parties cannot or choose not to give us more time to complete our evaluation, we will nevertheless attempt to engage with them on the substance of their transaction.

**ANTITRUST SOURCE:** Can you also comment on whether the DOJ has a policy regarding tying some of the second request modifications such as custodians or search terms to the timing agreement?

**RENATA HESSE:** We should not be holding modifications hostage to timing agreements. We do not have a policy that conditions second request modifications to agreement on a timing agreement. Indeed, we routinely modify Second Requests in matters with no timing agreement. However, it is often most efficient to negotiate custodians and search terms simultaneously with provisions in the timing agreement. When that happens, agreements on custodians and search terms, as well as timing, often naturally become part of a single agreement. However, this is not to say that, when there is no timing agreement contemplated, we don't also negotiate reasonable modifications to custodians or search terms or other aspects of the Second Request that the parties wish to modify.

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**ANTITRUST SOURCE:** Let's shift to another process issue. From your perspective how are relations between the FTC and the DOJ generally and also with regard to clearance?

**RENATA HESSE:** I think things are going very well. Chairwoman Ramirez and Bill Baer share a common approach to antitrust enforcement and there is a nice working relationship that's developed between the two of them. And Debbie Feinstein and I likewise have a productive relationship. When there are issues we call each other and we talk them through. On clearance matters, we do occasionally disagree, but we try very hard not to have situations where these disagreements have significantly delayed the timetable of agency review.

We are working well to try to address the clearance questions earlier. Sometimes we could spend a lot of time debating over which agency has expertise. But at some point you have to say, okay, this is a toss-up so let's just resolve it. Because very often when we're having a dispute, there really is not a clear answer to the question of which agency actually has more expertise.

**ANTITRUST SOURCE:** When you are having the discussions to resolve which agency should be cleared to initiate an investigation, what are the factors that you look at in assessing clearance?

**RENATA HESSE:** We have an agreement with the FTC that is premised on the notion that the agency with the most experience in the product at issue should undertake the next investigation. We work very hard to be sure that clearance is granted to one of the agencies as quickly as possible. And we're actually doing pretty well. We recently took a look at the time involved in resolving which agency will review a specific transaction or alleged conduct. We used fiscal year 2012 for this look back. In fiscal year 2012, the 20 matters that both agencies sought to investigate (and the 40 corresponding clearance requests, one from both agencies) represented a small fraction of total clearance requests (229) and total HSR filings received (1,429). Most clearance requests were resolved quickly, leading to an average time to resolution of 2.2 business days, or 3.1 calendar days. On average, clearance was resolved in 5.2 business days, or 7.5 calendar days into the waiting period.

We are constantly looking to improve these numbers, but we are confident that the system is working smoothly. Patty Brink, our Director of Civil Enforcement, is actively involved in clearance and only drags me into it when she has to. And most of the time I never hear about disputes because they just get resolved.

**ANTITRUST SOURCE:** Last June the DOJ and FTC held the conditional pricing practices workshop. What were the origins of that?

**RENATA HESSE:** Conditional pricing practices, such as loyalty and bundled pricing, are common throughout the economy. In many circumstances, this conduct isn't problematic and can save consumers money. In other cases, however, such as when a monopolist uses conditional pricing practices to restrict competition, they can undermine the competitive process. Both agencies felt like this was an area where there was still some uncertainty and disagreement about what standards should apply and how to think about conditional pricing practices.

So we thought it would be both interesting and also useful to bring together knowledgeable people with a range of views to talk about it. And both of those things turned out to be true. I thought it was an interesting workshop. There were no concrete conclusions that came out of it, but we heard a lot of interesting testimony. And people came away feeling like this is an area that deserves attention and that we should be thinking about whether there are pricing practices that we should be scrutinizing carefully.

**ANTITRUST SOURCE:** Outside of the standards-essential patent context, are there particular practices that you see as particularly concerning, even if you haven't necessarily brought a case, or where you think the law would benefit from further clarification?

**RENATA HESSE:** Refusals to deal is an area that I find very interesting, and where it would be worth spending some time on the right fact pattern. That's an area where a little more definition in the law would be helpful. As we discussed, we also continue to think that conditional pricing practices could be an area where, with the right fact pattern, we might be able to make some progress in giving some more definition to this area of the law.

**ANTITRUST SOURCE:** You've talked a lot today about competition advocacy. Is that something that you think the DOJ has done more of recently, and what sort of role do you see competition advocacy playing in the overall enforcement scheme?

**RENATA HESSE:** We've always done a fair amount of it. The standards-essential patent issues have gotten a lot of airtime recently, so people hear about it more. But we do engage in a broad range of competition advocacy within the U.S. government, as well as with state and local governments and private organizations. It's an incredibly valuable tool.

Law enforcement often takes a long time and can be a very blunt instrument. And if instead you can approach issues with the goal of trying to solve the problem before it starts, that can be a very good thing. So I'm very much in favor of using that tool when we can and we have pretty consistently done a fair amount of it.

**ANTITRUST SOURCE:** There have been a lot of complex, major cross-border transactions, and one would expect there will only be more in the upcoming years. Obviously there's the European Commission but there are a lot of newer agencies that are springing up. How do you see the Division's role in a global antitrust enforcement system?

**RENATA HESSE:** I believe we have an incredibly important role. As a mature competition agency with a very sophisticated way of thinking about antitrust issues, we can be an effective advocate

for antitrust enforcement around the world. So, to me, it makes sense to engage using the great people we have at both the staff and the Front Office levels, and to go out and talk to people.

*For example, we engage through OECD, through ICN, and through our bilateral or trilateral relationships with at least a dozen foreign jurisdictions. We continue to invest a lot of effort in those relationships and on working with those agencies to work towards convergence and to ensure that we're all speaking the same language and prioritizing harm to competition over other concerns.*

We have people who go and visit other countries and talk to them outside the context of an ongoing investigation. Leslie Overton is our DAAG with primary responsibility for coordinating the Division's engagement with foreign enforcement agencies. Over the past few years, she has helped us strengthen those relationships in a range of contexts. For example, we engage through OECD, through ICN, and through our bilateral or trilateral relationships with at least a dozen foreign jurisdictions. We continue to invest a lot of effort in those relationships and on working with those agencies to work towards convergence and to ensure that we're all speaking the same language and prioritizing harm to competition over other concerns.

**ANTITRUST SOURCE:** Do you have concerns that we may see a situation in the vein of *GE/Honeywell* where there is divergence between the U.S. and another major competition authority?

**RENATA HESSE:** One of the reasons we spend so much time and effort on enforcement cooperation with other jurisdictions is to avoid conflicting or contradictory outcomes. Over the past decade, the Division has increased its efforts to work closely with our international counterparts. Our day-to-day cooperative relationships with the EC, Canada, and other jurisdictions have improved tremendously at every level, sharing views—and, with party waivers, often evidence—on market definition, competitive effects, and remedies. But cooperation does not always lead to the same outcome, most often when markets differ between jurisdictions.

International cooperation on our investigations is important to the Division leadership, and Bill has made this a priority by tasking Patty Brink with managing our day-to-day cooperation efforts. She has regular communications with her counterparts at other agencies, and she and her team keep track of our staff attorneys' interactions with their counterparts so that within the Division we are all aware of the status of various jurisdictions' investigations into the same transaction or conduct. And there's a lot of cooperation to keep track of. In the last 12 months alone, we have cooperated with an international counterpart on 17 different civil matters with 15 distinct international counterparts. On the criminal enforcement side, our cooperation efforts are led by Brent Snyder, our Criminal DAAG, and Marvin Price, our Director of Criminal Enforcement.

I'm very optimistic that our relationships with our counterparts—really longstanding relationships with folks, particularly in Europe—reduce the potential for conflicting outcomes. I was in China a couple of years ago on a panel and two of my cohorts from the European Commission were people I'd gotten to know working on the *Microsoft* case, probably 15 years ago. They are still at the Commission and I'm back at the Division. And I was feeling at that moment like the relationship that I have with those two gentlemen is emblematic of what good interagency, international relations is all about: really getting to know people and being able to pick up the phone and understand people's voice inflections and know when they're joking and when they're not. We're doing a great job at developing and keeping those relationships at all levels of the Division.

**ANTITRUST SOURCE:** With respect to both merger and conduct cases, the Division probably hears a lot about the dynamic nature of markets, including potential entry by Google, Apple, Amazon, Pandora, and others. How do you evaluate these arguments and, in particular, whether a high-tech entrant serves as a competitive constraint?

**RENATA HESSE:** Again, I'm not sure we think about it all that differently today than we have in the recent past. Any time we're told that there's some dynamic change occurring in an industry and

that we therefore shouldn't be worried about an otherwise problematic transaction, you can be sure that we're going to test the claim.

We test these claims by looking at strategic documents from everybody who's involved to try to figure out whether or not that story of entry is likely or true. We look at win/loss data and ask whether we are actually seeing competition between any of these entrants occurring. We use all the information available to us to test the claim that this change is coming and to determine whether it's as close as people claim it is.

I have a very distinct recollection from many, many years ago. I'm not going to identify the industry because it will be too obvious who I'm talking about, but it was a technology industry. And every time they did a deal the refrain was the same: Google's coming; Google's going to be in. That was the argument for literally five years. And yet Google had not ever actually appeared. My recollection is that Google eventually did appear, but it happened many years later than people thought it was going to happen.

And we need to be careful about that. We don't want to challenge a merger when entry really is happening or something really is changing. And yet at the same time you do have to be careful about those claims, which are sometimes overstated.

**ANTITRUST SOURCE:** You mentioned that the hard cases are the ones that tend to get litigated. When outside counsel are debating the hard cases with the DOJ before you decide what course of action to take, what are some of the things you've seen people do that are effective?

**RENATA HESSE:** A couple things. One is having the best command of the facts as possible—and recognizing that there are often critical facts that are only available to the agencies. It's important that parties not make unfounded assumptions about what those uncertain facts actually are. So, I would say, assume the worst regarding the stuff that you don't know and then explain to us in a very fact-based analysis why you think the merger or conduct at issue is not a problem.

That factual command, coupled with robust economic analysis that doesn't include a lot of sleight of hand—where if you tweak one variable then everything changes—those two things together can be very meaningful. Good economic analysis that can be tested and vetted by our economists and verified is incredibly important. But in my view, the fact piece is the most important part. I always told my clients who were engaged in a merger review that the single most important thing when you start in advocacy with the Division is to have a well-supported, contemporaneously-documented reason for doing the deal that makes sense to people.

**ANTITRUST SOURCE:** Do you think that reason needs to be procompetitive or does it simply need to be a good reason that is not anticompetitive?

**RENATA HESSE:** It's great if it's procompetitive. If it's anticompetitive that's not so good. If it's neutral then you should have some other arguments to support the conclusion that the deal is procompetitive. You have clients and most of the time they're doing a deal for a perfectly good reason. Sometimes they have people who have written down bad things and that's not very helpful. But, perhaps the worst thing you can do is come into the Division with an executive who sounds like he's making something up in some post hoc way to justify a transaction that, on its face, maybe doesn't appear procompetitive.

People should own their business decisions about why they are doing the deal. It goes a long way if you're credible and you've got a good procompetitive justification for a deal.

**ANTITRUST SOURCE:** Do you have an expectation of seeing business people at key meetings?

**RENATA HESSE:** We usually do see business people at key meetings and it's often helpful. We had a deal recently where we were trying to figure out what to do and there was a debate among our team about what the company was going to do post-merger. And the CEO came in and told us his story and his plans in a credible manner. That was meaningful to me in terms of my decision about how to think about the deal.

**ANTITRUST SOURCE:** Before we finish, do you have anything you want to add?

**RENATA HESSE:** I'd like to highlight our recent emphasis on seeking disgorgement in civil enforcement cases. We just had the case addressing the New York City Tour Bus Joint Venture, and before that the *Flakeboard* matter. So that's something we have been thinking a lot about. It is an important principle. In appropriate circumstances, we want to ensure that people who would otherwise profit from unlawful conduct are required to give up their ill-gotten gains. That's something that has been and will continue to be a priority for us.

**ANTITRUST SOURCE:** In closing, what advice would you give to a young antitrust lawyer who is just starting off his or her career?

**RENATA HESSE:** There are a few things. First, take every opportunity that is given to you, even if it doesn't seem very glamorous at the time. Reviewing those documents and really figuring them out and being an integral part of a team is one of the best training grounds you will ever get.

As I have said to people many times, this includes even staying until 2 a.m. making copies. I do believe that one of the best things for me as a young associate was doing all sorts of tasks that were not terribly glamorous, but were tasks that needed to get done as we got ready for a trial or to file an important brief. It meant that I was in the middle of the action and I got to see everything that was going on. And I learned a ton that way.

Second, you have to be a team player. Try to find a workplace—whether it's a firm, or a company, or a government agency—where you can experience lots of different working styles. It was invaluable to me as I was growing up as a lawyer to see lots of different lawyers practice law in different ways. And it made me realize there was no one right way to do it. That was helpful because one of the most important things you can do is learn to be comfortable with yourself and who you are, to be comfortable in your own skin. Trying to be something you are not may not be a recipe for failure outright, but it's going to be a long hard road.

Third, don't be afraid to speak up, but also know when to be quiet. Pay attention to your surroundings and the people you're working with. You'll learn from people when they want to hear from you and when they don't want to hear from you.

Anyway, the biggest things are to be a team player and be yourself.

**ANTITRUST SOURCE:** That's a great place to end. Thank you. ●

# Extradition in International Antitrust Enforcement Cases

**Mark L. Krotoski**

The U.S. Department of Justice's Antitrust Division began to focus on international anti-cartel enforcement in the 1990s.<sup>1</sup> Since then, the global reach of Sherman Act enforcement has expanded dramatically. The Antitrust Division now regularly investigates, prosecutes, and convicts foreign companies and executives based on cartel activities occurring largely outside the United States. The Antitrust Division has used a variety of law enforcement tools to advance its objective to "send a powerful signal that cartelists will not be allowed to hide behind borders."<sup>2</sup>

Since the latter 1990s, the Antitrust Division has focused on extradition as an essential part of its international enforcement efforts.<sup>3</sup> The use of this law enforcement tool has taken many years to develop and apply in Antitrust Division cases. Last year the Antitrust Division took another significant step in international enforcement, with the extradition of two foreign executives—an Italian national traveling in Germany indicted in a bid-rigging case and a Canadian national indicted on fraud charges arising from a bid-rigging scheme. The German extradition was the first successfully litigated extradition on an antitrust charge.<sup>4</sup>

In these recent cases, the Antitrust Division demonstrated its resolve to use the extradition process to prosecute executives abroad as part of its mission to enforce the Sherman Act. More extraditions likely will follow.<sup>5</sup> The credible threat of the successful use of the extradition process bears upon and enhances the reach of the Antitrust Division's international anti-cartel enforcement program.

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<sup>1</sup> See, e.g., Scott D. Hammond, Dep. Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Charting New Waters in International Cartel Prosecutions 1–2 (Mar. 2, 2006) (summarizing prior enforcement efforts), available at <http://www.justice.gov/atr/public/speeches/214861.pdf>.

<sup>2</sup> Thomas O. Barnett, Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Seven Steps to Better Cartel Enforcement 5–6 (June 2, 2006) (discussing the Norris extradition), available at <http://www.justice.gov/atr/public/speeches/216453.pdf>; see generally Mark Krotoski, *Essential Elements for an Effective Anti-Cartel Program*, CARTEL & CRIMINAL PRACTICE COMMITTEE NEWSL. 11, 32–34 (ABA Section of Antitrust Law), Spring 2014 (summarizing international law enforcement tools), available at [http://www.weil.com/~media/files/pdfs/ABA\\_Cartel\\_Criminal\\_Practice\\_Spring\\_%202014.pdf](http://www.weil.com/~media/files/pdfs/ABA_Cartel_Criminal_Practice_Spring_%202014.pdf).

<sup>3</sup> See, e.g., Gary R. Spratling, Dep. Ass't Att'y Gen., Antitrust Div., U.S. Dep't of Justice, Negotiating the Waters of International Cartel Prosecutions 13–15 (Mar. 4, 1999) (noting model plea agreement changes to encourage extradition), available at <http://www.justice.gov/atr/public/speeches/2275.pdf>.

<sup>4</sup> Press Release, U.S. Dep't of Justice, First Ever Extradition on Antitrust Charge (Apr. 4, 2014), available at [http://www.justice.gov/atr/public/press\\_releases/2014/304888.htm](http://www.justice.gov/atr/public/press_releases/2014/304888.htm).

<sup>5</sup> See, e.g., Dan Gearino, *Massive Price-Fixing Among Auto-Parts Manufacturers Hurt U.S. Car Buyers*, COLUMBUS DISPATCH, Mar. 22, 2015 (Director of Criminal Enforcement Marvin N. Price, Jr. noting, in the auto parts investigation, that the Antitrust Division "will consider . . . extraditing" foreign nationals "from the country where they are located"), available at <http://www.dispatch.com/content/stories/business/2015/03/22/a-culture-of-collusion.html>; Pallavi Guniganti, *Obstruction Could Outweigh Antitrust for Indicted Mitsuba Execs*, GLOBAL COMPETITION REV. (Feb. 6, 2015) ("Two executives charged for obstruction of justice and price fixing may have set themselves up as the test case for the US to press Japan for extradition in the auto parts conspiracy.").

When considering extradition of a foreign executive, several factors are at issue, including whether an extradition treaty applies and, if so, which one; whether the applicable extradition treaty contains a “dual criminality” provision (which typically permits extradition only on the basis of criminal conduct qualifying as a serious offense that is punishable by a year or more in prison in both countries); whether other charges may be used to accomplish the extradition; whether charges have been filed under seal so that an unwitting executive might risk arrest while traveling to another country; and whether the executive will be held in custody.

### **Antitrust Division Prosecution and Extradition of Foreign Executives**

The Antitrust Division’s prosecution of foreign nationals who violate the Sherman Act reached a key turning point 16 years ago. In May 1999, in the vitamins investigation, Hoffmann-La Roche Ltd. pled guilty to violating the Sherman Act and was sentenced to pay a criminal fine of \$500 million. The company’s former director of worldwide marketing, a Swiss citizen, pled guilty and agreed to serve four months in prison and pay a \$100,000 fine. His conviction represented the first time a foreign executive agreed to serve time in a U.S. prison for his participation in an international cartel and “marked a watershed in the Antitrust Division’s prosecution of international cartels.”<sup>6</sup> Four other foreign executives pled guilty and agreed to prison terms in the investigation.

As a result of the success and strength of its criminal enforcement program abroad, the Antitrust Division recently has persuaded a substantial number of foreign nationals to voluntarily come to the United States to plead guilty to a Sherman Act violation and serve a federal prison term. Foreign executives may be willing to resolve an Antitrust Division investigation through a plea agreement in order to obtain certainty and closure in the criminal justice process. They avoid the risk of an unexpected arrest during travel based on an international arrest warrant.<sup>7</sup> A negotiated sentence typically is lower than one imposed following a trial conviction. In the Antitrust Division’s ongoing auto parts investigation, for example, dozens of foreign executives have negotiated plea agreements and have voluntarily come to the United States to serve prison terms.<sup>8</sup>

Extradition establishes a process, usually based on a treaty, under which one country agrees to deliver an individual charged with a covered offense to another country for criminal prosecu-

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<sup>6</sup> Scott D. Hammond, Dep. Ass’t Att’y Gen., Antitrust Div., U.S. Dep’t of Justice, *The Evolution of Criminal Antitrust Enforcement over the Last Two Decades* 7 (Feb. 25, 2010), available at <http://www.justice.gov/atr/public/speeches/255515.pdf>; see also *Plea Agreement, United States v. Sommer*, No. 99-CR-201-R (N.D. Tex. May 20, 1999), available at <http://www.justice.gov/atr/cases/f2400/sommer.pdf>; *Information, United States v. Sommer*, No. 99-CR-201R (N.D. Tex. May 20, 1999), available at <http://www.justice.gov/atr/cases/f2400/2454.pdf>; Press Release, U.S. Dep’t of Justice, *Four Foreign Executives of Leading European Vitamin Firms Agree to Plead Guilty to Participating in International Vitamin Cartel* (Apr. 6, 2000), available at [http://www.justice.gov/atr/public/press\\_releases/2000/4494.htm](http://www.justice.gov/atr/public/press_releases/2000/4494.htm).

<sup>7</sup> An arrest warrant may be included as an Interpol Red Notice request which is used to notify 190 member countries to assist in locating and arresting the wanted person for extradition. A Red Notice is tantamount to an international arrest warrant. U.S. DEP’T OF JUSTICE, *CRIMINAL RESOURCE MANUAL 611* (Interpol Red Notices), available at <http://www.justice.gov/usam/criminal-resource-manual-611-interpol-red-notices>; see also *Interpol Notices* (explaining Red Notices and other notice forms), available at <http://www.interpol.int/INTERPOL-expertise/Notices>.

<sup>8</sup> See, e.g., Press Release, U.S. Dep’t of Justice, *Former President and Vice President of Diamond Electric Agree to Plead Guilty to Participating in Auto Parts Price-Fixing Conspiracy* (Jan. 31, 2014) (Dep. Ass’t Att’y Gen. Brent Snyder also noted, “The division’s ongoing investigation has resulted in more than two dozen executives serving prison time for their participation in illegal, auto parts conspiracies.”), available at [http://www.justice.gov/atr/public/press\\_releases/2014/303331.htm](http://www.justice.gov/atr/public/press_releases/2014/303331.htm). To date, most of the executives have been foreign nationals who have negotiated plea agreements. See, e.g., Press Release, U.S. Dep’t of Justice, *Continental Automotive Electronics and Continental Automotive Korea Agree to Plead Guilty to Bid Rigging on Instrument Panel Clusters* (Nov. 24, 2014) (“32 companies and 46 executives have been charged in the Justice Department’s ongoing investigation into the automotive parts industry. . . . Of the 46 individuals, 26 have been sentenced to serve time in U.S. prisons.”), available at [http://www.justice.gov/atr/public/press\\_releases/2014/310026.htm](http://www.justice.gov/atr/public/press_releases/2014/310026.htm).

tion. The United States presently has extradition treaties with more than 100 countries.<sup>9</sup> Because terms vary, each treaty is considered separately as an independent contract between two countries. The Antitrust Division's first successful extradition occurred in 2010. Since then, the Antitrust Division has extradited four individuals from four different countries including, in 2014, its first extradition based solely on antitrust charges.

### ***United States v. Piscioti: Extradition from Germany***

*The Antitrust Division's first successful extradition occurred in 2010. Since then, the Antitrust Division has extradited four individuals from four different countries including, in 2014, its first extradition based solely on antitrust charges.*

In August 2010, Romano Piscioti, an Italian executive of marine hose manufacturer Parker ITR S.r.l. was charged in a one-count sealed indictment for rigging bids, fixing prices, and allocating market shares involving sales of marine hose. Nearly three years later, in June 2013, Piscioti was arrested while traveling in Frankfurt, Germany. After his arrest, his indictment was unsealed.<sup>10</sup> In the marine hose investigation, five companies, including Parker, and nine individuals pled guilty. Two individuals were acquitted at trial, and one German national remains at large.<sup>11</sup>

The extradition treaty between the United States and Germany contains a dual criminality provision that allows an individual to be extradited based on an offense that is subject to criminal penalties in both countries.<sup>12</sup> Under German law, however, no German may be extradited to a foreign country.<sup>13</sup>

Piscioti contested his extradition and remained in custody. In January 2014, the Higher Regional Court in Frankfurt concluded that the dual criminality requirement was satisfied. The bid-rigging charge constituted a criminal offense under section 298 of the German Criminal Code and under the Sherman Act. The German Federal Constitutional Court denied his appeal,<sup>14</sup> and he was ordered to be extradited. During the German extradition proceedings, he was held in custody for

<sup>9</sup> Treaties in Force, U.S. Dep't of State (Jan. 2013) (latest version listing extradition treaties), available at <http://www.state.gov/documents/organization/218912.pdf>; see also 18 U.S.C. § 3181 (note) (listing bilateral extradition agreements). In the U.S. Department of Justice, the Office of International Affairs in the Criminal Division reviews and approves requests for extradition in criminal cases. See U.S. ATTORNEY'S MANUAL § 9-15.210 (Role of the Office of International Affairs), available at <http://www.justice.gov/usam/usam-9-15000-international-extradition-and-related-matters#9-15.210>.

<sup>10</sup> Press Release, U.S. Dep't of Justice, *supra* note 4; Indictment, United States v. Piscioti, No. 10-CR-60232 (S.D. Fla. Aug. 26, 2010), available at <http://www.justice.gov/atr/cases/f304900/304914.pdf>; Order, United States v. Piscioti, No. 10-CR-60232 (S. D. Fla. Aug. 5, 2013), available at <http://www.justice.gov/atr/cases/f304900/304945.pdf>.

<sup>11</sup> Plea Agreement, United States v. Parker ITR S.r.l., No. H-10-75 (S.D. Tex. Mar. 25, 2010), available at <http://www.justice.gov/atr/cases/f257300/257358.pdf>; Shannon Henson, *Jury Finds 2 Not Guilty in Marine Hose Cartel*, LAW360 (Nov. 11, 2008); see also Press Release, U.S. Dep't of Justice, Marine Hose Executive Who Was Extradited to United States Pleads Guilty for Participating in Worldwide Bid-Rigging Conspiracy (Apr. 24, 2014) (summarizing investigation), available at [http://www.justice.gov/atr/public/press\\_releases/2014/305376.htm](http://www.justice.gov/atr/public/press_releases/2014/305376.htm).

<sup>12</sup> As the Supreme Court has described the dual criminality principle, "The law does not require that the name by which the crime is described in the two countries shall be the same; nor that the scope of the liability shall be coextensive, or, in other respects, the same in the two countries. It is enough if the particular act charged is criminal in both jurisdictions." *Collins v. Loisel*, 259 U.S. 309, 312 (1922); see also *United States v. Sensi*, 879 F.2d 888, 893 (D.C. Cir. 1989) (reviewing extradition treaty that "expressly embraces the double criminality principle of extradition law, which requires that the offense charged be punishable as a serious crime in both countries").

<sup>13</sup> GRUNDESETZ FÜR DIE BUNDESREPUBLIK DEUTSCHLAND [GRUNDGESETZ] [GG] [Basic Law], May 23, 1949, Art. 16(2) (Ger.) (as amended Aug. 31, 1990 & Sept. 23, 1990), available at <http://www.constitution.org/cons/germany.txt>; see also Extradition Treaty, U.S.-Ger. June 20, 1978, 32 U.S.T. 1485, available at <http://www.mcabbassociates.com/Germany%20International%20Extradition%20Treaty%20with%20the%20United%20States.pdf>.

<sup>14</sup> See Oberlandsgericht [OLGZ] [Court of Appeals Frankfurt], Jan. 22, 2014, File No. 2 Ausl A 104/13 (Ger.), available at <http://www.lareda.hessenrecht.hessen.de/jportal/portal/t/s15/page/bslaredaprod.psm1?&doc.id=KORE213542014%3AJuris-r01&showdoccase=1&doc.part=L>; Bundesverfassungsgericht [BVerG] [Federal Constitutional Court], Feb. 17, 2014, 2 BvQ 4/14, available at <http://www.hrr-strafrecht.de/hrr/bverfg/14/2-bvq-4-14.php>; see also STRAFGESETZBUCH [STGB] [Criminal Code], Nov. 13, 1998, § 298 (Ger.), available at <http://www.iuscomp.org/gla/statutes/StGB.htm>.

9 months and 16 days. After his initial appearance in the U.S. District Court for the Southern District of Florida, Piscioti was detained. In April 2014, he pled guilty to one count of conspiring to rig bids, fix prices, and allocate market shares of marine hose.<sup>15</sup> The court sentenced him to 24 months in prison and imposed a \$50,000 fine. He received credit for his time in custody during the extradition proceedings, and his sentence was reduced by three months based on his cooperation.<sup>16</sup> In his plea agreement, he was allowed to seek a transfer of his confinement to Italy under the International Prisoner Transfer Program.<sup>17</sup>

### ***United States v. Bennett: Extradition from Canada***

In November 2014, the Antitrust Division announced the second extradition of the year, this time involving a Canadian national. On August 31, 2009, John Bennett and two others were charged in a sealed indictment alleging fraud, kickbacks, and bid rigging involving contracts at Environmental Protection Agency Superfund sites. The indictment was unsealed shortly afterward. Bennett, a former chief executive officer of Bennett Environmental Inc., a Canadian company, was charged with participating in a kickback-and-fraud conspiracy and major fraud against the United States.<sup>18</sup>

Two co-defendants were convicted. One pled guilty to participating in a kickback-and-fraud conspiracy and to committing fraud against the United States and was sentenced to 33 months in prison. The lead defendant was convicted by a jury on ten counts, including bid rigging, kickback, fraud, and related charges, and sentenced to 14 years in prison, the longest prison sentence ever imposed for an antitrust crime.<sup>19</sup> John Bennett's company, Bennett Environmental, entered a guilty plea to conspiring to defraud the EPA and was sentenced in December 2008 to a fine of \$1,000,000 and ordered to pay the EPA \$1,662,000 in restitution.<sup>20</sup> In the investigation, nine individuals and three companies have been convicted.

While the other defendants were prosecuted, the Antitrust Division pursued Bennett's extradition from Canada. The U.S.-Canada extradition treaty provides that "[e]xtradition shall be granted for conduct which constitutes an offense punishable by the laws of both Contracting Parties

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<sup>15</sup> Press Release, U.S. Dep't of Justice, *supra* note 11; *see also* Plea Agreement, United States v. Piscioti, No. 10-CR-60232 (S.D. Fla. Apr. 24, 2014), available at <http://www.justice.gov/atr/cases/f305500/305542.pdf>.

<sup>16</sup> Judgment, United States v. Piscioti, No. 10-CR-60232 (S.D. Fla. Apr. 25, 2014) (No. 25).

<sup>17</sup> Plea Agreement ¶ 15, United States v. Piscioti, No. 10-CR-60232 (S.D. Fla. Apr. 24, 2014), available at <http://www.justice.gov/atr/cases/f305500/305542.pdf>. Under the International Prisoner Transfer Program, foreign prisoners may apply to serve their federal sentences in their home countries. *See* <http://www.justice.gov/criminal/oeo/iptu/> (program overview); <http://www.justice.gov/criminal/oeo/iptu/guidelines.html> (guidelines for considering transfer applications).

<sup>18</sup> Indictment, United States v. McDonald, No. 09-CR-656 (D.N.J. Aug. 31, 2009), available at <http://www.justice.gov/atr/cases/f250100/250158.pdf>; Unsealing Order, McDonald (Sept. 11, 2009), available at <http://www.justice.gov/atr/cases/f250000/250011.pdf>; Press Release, U.S. Dep't of Justice, Three Individuals Indicted for Roles in Conspiracy Schemes Involving Two U.S. Environmental Protection Agency Superfund Sites in New Jersey (Sept. 11, 2009), available at [http://www.justice.gov/atr/public/press\\_releases/2009/249958.htm](http://www.justice.gov/atr/public/press_releases/2009/249958.htm).

<sup>19</sup> Press Release, U.S. Dep't of Justice, Former Project Manager Sentenced to Serve Time in Prison for Role in Bid Rigging and Other Fraudulent Schemes Involving Two EPA Superfund Sites in New Jersey (Mar. 3, 2014), available at [http://www.justice.gov/atr/public/press\\_releases/2014/304133.pdf](http://www.justice.gov/atr/public/press_releases/2014/304133.pdf); *see also* Press Release, U.S. Dep't of Justice, Former Representative of Backfill Subcontractor Sentenced to 33 Months in Jail for Kickback and Fraud Scheme (Feb. 23, 2010), available at [http://www.justice.gov/atr/public/press\\_releases/2010/255575.pdf](http://www.justice.gov/atr/public/press_releases/2010/255575.pdf).

<sup>20</sup> Press Release, U.S. Dep't of Justice, Bennett Environmental Inc. Pleads Guilty to Defrauding the U.S. Environmental Protection Agency (July 31, 2008), available at [http://www.justice.gov/atr/public/press\\_releases/2008/235656.pdf](http://www.justice.gov/atr/public/press_releases/2008/235656.pdf); *see also* Plea Agreement, United States v. Bennett Environmental, Inc., No. 08-CR-534 (D.N.J. July 31, 2008), available at <http://www.justice.gov/atr/cases/f235700/235748.pdf>.

by imprisonment or other form of detention for a term exceeding one year or any greater punishment.”<sup>21</sup>

Bennett contested his extradition for more than five years. In February 2012, a Canadian Supreme Court Judge ordered his committal. In August 2012, the Canadian Minister of Justice ordered him to surrender to the United States. In April 2014, the Court of Appeal for British Columbia dismissed his appeal, deeming the U.S. charges to be equivalent to the Canadian offenses of fraud and conspiracy to commit fraud. On October 30, 2014, the Supreme Court of Canada declined to hear Bennett’s appeal. On November 14, 2014, Bennett was extradited to the United States.<sup>22</sup> Although the case involved a separate bid-rigging charge, the charges on which his extradition was based did not involve a Sherman Act violation.

Bennett appeared before the U.S. District Court for the District of New Jersey on November 17, 2014. He was detained initially but released a few weeks later on bail, with conditions that included posting a \$1 million secured appearance bond, house arrest under third-party custody, wearing a tracking device, and surrendering his passport.<sup>23</sup> His jury trial is scheduled for Fall 2015.

### ***United States v. Porath: Extradition from Israel***

In 2012, the Antitrust Division extradited an executive from Israel on bid-rigging and tax charges. In February 2010, David Porath, an owner of The Apache Group Inc., a re-insulation service company, was charged in the Southern District of New York in a sealed indictment containing three counts: (1) conspiring to rig bids on contracts for re-insulation services to New York Presbyterian Hospital (NYPH) from 2000 through March 2005; (2) conspiring to defraud the Internal Revenue Service; and (3) filing a false tax return. The indictment included a second defendant, who pled guilty in November 2010 to a scheme that created false tax deductions that would reduce Porath’s taxable income.<sup>24</sup> The charges were unsealed the next month.<sup>25</sup> When the charges were filed, Porath, who holds both U.S. and Israeli citizenship, was residing in Israel.

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<sup>21</sup> Protocol Amending the Treaty on Extradition, U.S.-Can., art. 1, Jan. 11, 1988 (1853 U.N.T.S. 407), available at <http://www.treaty-accord.gc.ca/text-texte.aspx?id=101349>; see generally Canada Dep’t of Justice, Extradition Requests to Canada (explaining process), available at <http://www.justice.gc.ca/eng/cj-jp/emla-eej/tocan-aucan.html>.

<sup>22</sup> Press Release, U.S. Dep’t of Justice, Canadian Executive Extradited on Major Fraud Charges Involving a New Jersey Environmental Protection Agency Superfund Site (Nov. 17, 2014), available at [http://www.justice.gov/atr/public/press\\_releases/2014/309928.pdf](http://www.justice.gov/atr/public/press_releases/2014/309928.pdf); see also United States v. Bennett, 2011 BCSC 1521 (Jan. 12, 2012) (corrected judgment summarizing early challenges), available at <http://caselaw.canada.globe24h.com/0/0/british-columbia/supreme-court-of-british-columbia/2011/11/10/united-states-v-bennett-2011-bcsc-1521.shtml>; United States v. Bennett, 2014 BCCA 145 (Apr. 14, 2014), available at <http://www.courts.gov.bc.ca/jdb-txt/CA/14/01/2014BCCA0145.htm>; Bennett v. Attorney General of Canada, No. 35839 (S.C.C.) (case docket), available at <http://www.scc-csc.gc.ca/case-dossier/info/dock-regi-eng.aspx?cas=35839>.

<sup>23</sup> Order Setting Conditions of Release, United States v. Bennett, No. 09-CR-656 (D.N.J. Dec. 9, 2014) (No. 209). Later, the Order was modified to allow Bennett “to travel freely . . . between the hours of 10:00 a.m. and 3:00 pm” with a residence restriction “during all other hours.” Order Modifying Pretrial Release Conditions, United States v. Bennett, No. 09-CR-656 (D.N.J. Mar. 13, 2015) (No. 224).

<sup>24</sup> His co-defendant pled guilty to a conspiracy to defraud the IRS count. See Press Release, U.S. Dep’t of Justice, Pennsylvania Contractor Pleads Guilty to Tax Fraud Conspiracy (Nov. 17, 2010), available at [http://www.justice.gov/atr/public/press\\_releases/2010/264264.pdf](http://www.justice.gov/atr/public/press_releases/2010/264264.pdf).

<sup>25</sup> See Indictment, United States v. Porath, No. 10-CR-120 (S.D.N.Y. Feb. 18, 2010), available at <http://www.justice.gov/atr/cases/f257600/257638.pdf>; Order, United States v. Porath, No. 10-CR-120 (S.D.N.Y. Mar. 31, 2010) (unsealing indictment), available at <http://www.justice.gov/atr/cases/f257500/257557.pdf>; Press Release, U.S. Dep’t of Justice, Former Contractor Indicted in Bid-Rigging Conspiracy at New York City Hospital and for Tax Fraud (Mar. 31, 2010), available at [http://www.justice.gov/atr/public/press\\_releases/2010/257286.pdf](http://www.justice.gov/atr/public/press_releases/2010/257286.pdf).

The extradition treaty between Israel and the United States includes a dual criminality provision that provides for extradition for an offense that “is punishable under the laws in both Parties by deprivation of liberty for a period of one year or by a more severe penalty.”<sup>26</sup>

In January 2011, the Antitrust Division requested the extradition of Porath from Israel. On November 27, 2011, Porath was located and arrested in Israel. He was detained until December 19, 2011, when he was ordered held under house arrest. In January 2012, an Israeli magistrate determined that Porath could be extradited based on all charged offenses. Porath then elected to waive any appeal to the Israeli Supreme Court and consented to his extradition.<sup>27</sup>

On February 16, 2012, Porath was extradited to the United States. He was arraigned the next day and remained in custody. Nearly one year later, on February 6, 2013, he pled guilty to all three charges: conspiring to rig bids, conspiring to defraud the IRS, and filing a false tax return. The court sentenced him to time served (just under one year) and a term of one year of supervised release, and ordered him to pay a \$7,500 fine and \$652,770 in restitution. In the investigation, 15 individuals and 6 companies were convicted on bid-rigging, fraud, bribery, and tax offenses concerning contracts awarded by the NYPH facilities operations department.<sup>28</sup>

### ***United States v. Norris: Extradition from the United Kingdom***

After a six-and-a-half year battle, in 2010, the Antitrust Division extradited a British executive, who then was convicted at a jury trial. This case was the first in which the Antitrust Division successfully extradited an individual and, to date, was the most contentious, having involved contested litigation at each phase.

As part of the carbon graphite investigation, in November 2002, The Morgan Crucible Company PLC, a publicly held company based in England, pled guilty to two counts of witness tampering and document destruction and paid a \$1 million fine. On the same day, Morganite Inc., a subsidiary of The Morgan Crucible Company based in North Carolina, pled guilty to fixing the prices of carbon products and was ordered to pay a \$10 million fine.<sup>29</sup>

After the corporate convictions, in September 2004, Ian P. Norris, Chief Executive Officer of The Morgan Crucible Company PLC and a British citizen, was indicted on four counts: (1) a Sherman Act conspiracy to fix prices for carbon brushes and other carbon products; (2) a conspiracy to obstruct justice; (3) witness tampering; and (4) persuading a witness to destroy records.<sup>30</sup> The obstruction charges related to a script created by Norris for employees to use when questioned

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<sup>26</sup> Protocol Amending the Convention Between the United States of America and Israel of December 10, 1962, U.S.-Isr., art. 2, July 6, 2005, T.I.A.S. 07-110, available at <http://www.state.gov/documents/organization/171403.pdf>.

<sup>27</sup> Final Form Brief for the United States at 17, *United States v. Yaron*, No. 12-2889 (2d Cir. Dec. 13, 2013) (summarizing extradition proceedings), available at <http://www.justice.gov/atr/cases/f302300/302323.pdf>; see also Declaration of Patricia L. Petty, *United States v. Yaron*, No. 10-CR-363 (S.D.N.Y. Apr. 16, 2012) (No. 157) (statement of DOJ Office of International Affairs attorney, summarizing proceedings).

<sup>28</sup> Press Release, U.S. Dep’t of Justice, *Owner of Insulation Service Company Pleads Guilty to Million Dollar Bid-Rigging and Fraud Conspiracies at New York City Hospital* (July 11, 2012), available at [http://www.justice.gov/atr/public/press\\_releases/2012/285024.docx](http://www.justice.gov/atr/public/press_releases/2012/285024.docx).

<sup>29</sup> Plea Agreement, *United States v. Morganite, Inc.*, No. 02-CR-733 (E.D. Pa. Nov. 4, 2002), available at <http://www.justice.gov/atr/cases/f200400/200430.pdf>; Press Release, U.S. Dep’t of Justice, *U.S. Company and U.K. Parent to Plead Guilty to Charges Involving an International Electrical Carbon Products Cartel*, available at [http://www.justice.gov/atr/public/press\\_releases/2002/200423.pdf](http://www.justice.gov/atr/public/press_releases/2002/200423.pdf) (Nov. 4, 2002).

<sup>30</sup> Second Superseding Indictment, *United States v. Norris*, No. 03-632 (E.D. Pa. Sept. 28, 2004), available at <http://www.justice.gov/atr/cases/f206000/206064.pdf>; see also Press Release, U.S. Dep’t of Justice, *Four Former Executives of UK Corporation Charged with Obstructing Price-Fixing Investigation of the Carbon Products Industry* (Sept. 24, 2003), available at [http://www.justice.gov/atr/public/press\\_releases/2003/201287.pdf](http://www.justice.gov/atr/public/press_releases/2003/201287.pdf).

during the investigation. Ultimately, three subordinates pled guilty to obstruction-of-justice offenses.<sup>31</sup>

The Antitrust Division sought to extradite Norris on all charges. The effort commenced in September 2003, when the charges were filed, and continued until March 2010, when he was extradited. The extradition proceedings were vigorously contested. A central dispute was whether the provisions of the UK Extradition Act of 2003 would permit extradition based on the charged offenses.<sup>32</sup> The question was whether the antitrust conduct alleged to have been committed from 1989 until May 2000 was covered because it occurred before a “cartel offense” was established in section 188 of the Enterprise Act of 2002.

In early proceedings, the British courts concluded that the charges were covered by the applicable extradition treaty. Initially, in June 2005, the Bow Street Magistrates’ Court concluded that Norris could be extradited based on the antitrust and obstruction of justice offenses and, in September 2005, the British Secretary of State ordered his extradition. Norris pursued several appeals.<sup>33</sup> In March 2008, the House of Lords determined that Norris could not be extradited on the antitrust count and remitted the case for judicial determination on whether he could be extradited on the obstruction charges. The UK ultimately determined that Norris could be extradited only on the three obstruction-of-justice counts.<sup>34</sup> On March 23, 2010, Norris was extradited from the UK to the U.S. District Court for the Eastern District of Pennsylvania.

In July 2010, Norris proceeded to a jury trial. After a seven-day trial, the jury convicted him solely on the count of conspiring to obstruct justice, acquitting him on the remaining counts. The court sentenced him to serve 18 months in prison and a three-year term of supervised release, and ordered him to pay a \$25,000 fine.<sup>35</sup> The U.S. Court of Appeals for the Third Circuit affirmed his conviction on appeal.<sup>36</sup>

### Issues for Extradition Analysis

The four extradition cases demonstrate the resolve of the Antitrust Division to press for extradition and its readiness to litigate each phase of the case, if necessary. As Assistant Attorney General William Baer commented in connection with the *Pisciotti* case, the conviction “demonstrates the Antitrust Division’s ability to bring to justice those who violate antitrust laws, even when they attempt to avoid prosecution by remaining in foreign jurisdictions.”<sup>37</sup> In the *Norris* case, the Antitrust Division pursued extradition for six-and-a-half years, while extradition in the *Bennett*

*The four extradition cases demonstrate the resolve of the Antitrust Division to press for extradition and its readiness to litigate each phase of the case, if necessary.*

<sup>31</sup> Press Release, U.S. Dep’t of Justice, Former CEO of The Morgan Crucible Co. Sentenced to Serve 18 Months in Prison for Role in Conspiracy to Obstruct Justice (Dec. 10, 2010) (summarizing the convictions in the case), available at [http://www.justice.gov/atr/public/press\\_releases/2010/265028.pdf](http://www.justice.gov/atr/public/press_releases/2010/265028.pdf).

<sup>32</sup> Extradition Act 2003, available at [http://www.legislation.gov.uk/ukpga/2003/41/pdfs/ukpga\\_20030041\\_en.pdf](http://www.legislation.gov.uk/ukpga/2003/41/pdfs/ukpga_20030041_en.pdf).

<sup>33</sup> See generally Scott D. Hammond, *supra* note 1, at 11–12 (summarizing extradition efforts); Julian Joshua, *Implications of Norris for UK-U.S. Extradition and Future UK Cartel Prosecutions*, ANTITRUST SOURCE (June 2008) (same), [http://www.americanbar.org/content/dam/aba/publishing/antitrust\\_source/Jun08\\_Joshua6\\_26f.pdf](http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/Jun08_Joshua6_26f.pdf); *Norris v. United States* [2007] EWHC 71 (Admin) (Jan. 25, 2007) (denying appeal), available at <http://www.bailii.org/ew/cases/EWHC/Admin/2007/71.html>.

<sup>34</sup> *Norris v. United States*, [2008] UKHL 16, A.C. 920 (H.L.), available at <http://www.bailii.org/uk/cases/UKHL/2008/16.html>; Order for Extradition Pursuant to Section 93(4) of the Extradition Act 2003 (Sept. 22, 2008) (cited in *United States v. Norris*, No. 10-4658, 3 n.1 (3d Cir. Mar. 23, 2011) (noting limitation on extradition), available at <http://www.justice.gov/atr/cases/f268800/268813.pdf>).

<sup>35</sup> Press Release, U.S. Dep’t of Justice, *supra* note 31; Press Release, U.S. Dep’t of Justice, Former CEO of The Morgan Crucible Co. Found Guilty of Conspiracy to Obstruct Justice (July 27, 2010), available at [http://www.justice.gov/atr/public/press\\_releases/2010/260826.pdf](http://www.justice.gov/atr/public/press_releases/2010/260826.pdf).

<sup>36</sup> *United States v. Norris*, No. 10-4658 (3d Cir. Mar. 23, 2011), available at <http://www.justice.gov/atr/cases/f268800/268813.pdf>.

<sup>37</sup> Press Release, U.S. Dep’t of Justice, *supra* note 11.

case took more than five years. After extradition, two of the four cases—*Pisciotti* and *Porath*—resulted in negotiated plea agreements. In the *Norris* case, the Antitrust Division obtained a conviction at trial, which was affirmed on appeal. The *Bennett* case remains pending for trial.

The four cases highlight issues for consideration in the extradition of individual defendants to the United States in connection with antitrust offenses.

**Applicable Extradition Treaty.** The initial step is to determine whether an extradition treaty applies and, if so, which one. Although the United States has extradition treaties with more than 100 countries, it does not have such treaties with numerous others, including many in the Middle East, Africa, and parts of Asia. More than one extradition treaty may apply. The starting point is whether the United States has an extradition treaty with the defendant's country of residence. The *Norris* and *Bennett* extraditions were based on extradition treaties with the executives' native countries. Similarly, *Porath* held Israeli citizenship, in addition to U.S. citizenship, and was residing in Israel when he was arrested.

*The initial step is to determine whether an extradition treaty applies and, if so, which one.*

Even those countries with which the United States has an extradition treaty may place limitations on the applicability of the treaty. For instance, some countries, such as Germany and Japan,<sup>38</sup> have laws barring the extradition of its nationals. In other instances, a treaty, such as those with South Korea and Australia, may permit the country to exercise its discretion in extraditing its nationals.<sup>39</sup>

Extradition treaties with the countries to which a defendant likely will travel also must be considered. Each potentially applicable treaty must be reviewed, as the terms often vary. The *Pisciotti* case highlights the risks of being extradited during international travel. As an Italian national traveling through Germany, *Pisciotti* discovered that he was subject to the extradition treaty between the United States and Germany based on a sealed U.S. indictment.

Travel carries additional risks. Scheduled flights can be unpredictable based on weather, mechanical, and other delays, which may result in re-routing to airports in other countries. If a flight is redirected to an airport in a country that has an extradition treaty with the United States, the defendant may be extradited pursuant to the terms of that treaty.

**Covered Offenses.** The next question is whether the applicable extradition treaty covers the charged offenses. If the applicable treaty contains an enumeration of specific covered offenses, extradition is possible only if the charged offense is listed. More commonly, however, extradition treaties have a dual criminality provision that permits extradition only for antitrust or other charged conduct that is criminalized in both countries. The dual criminality requirement was invoked and litigated, and found to have been satisfied, in both the *Pisciotti* and *Porath* cases.

The recent international trend has been to criminalize antitrust offenses.<sup>40</sup> As more countries criminalize antitrust offenses, the risk of extradition will expand to other jurisdictions. For extradi-

<sup>38</sup> Japan Law of Extradition, Art. 2(9), available at <http://www.moj.go.jp/ENGLISH/information/loe-01.html>.

<sup>39</sup> SEN. EXEC. REP. NO. 106-13, (Nov. 3, 1999) (report on extradition treaty with Republic of Korea) (noting that “[p]ermitting such broad discretion to extradite nationals is not the preferred U.S. requirement”), available at <http://www.gpo.gov/fdsys/pkg/CRPT-106erpt13/html/CRPT-106erpt13.htm>; Treaty on Extradition, U.S.-S. Kor., art. 3(1), Dec. 20, 1999, T.I.A.S. No. 12,962 (noting “the Requested State shall have the power to extradite” its own nationals “if, in its discretion, it be deemed proper to do so”), available at <http://www.state.gov/documents/organization/112483.pdf>; Treaty on Extradition, U.S. Austl., art V(1), May 8, 1976, 27 U.S.T. 957 (noting “the executive authority of each Contracting Party shall have the power to deliver” its own nationals “up if, in its discretion, it considers that it is proper to do so”), available at <http://www.austlii.edu.au/cgi-bin/sinodisp/au/other/dfat/treaties/1976/10.html>.

<sup>40</sup> See generally Gregory C. Shaffer & Nathaniel H. Nesbitt, *Criminalizing Cartels: A Global Trend?* (Minnesota Legal Studies Research Paper Series No. 11–26, 26–29, June 6, 2011) (chronological listing of countries that have criminalized cartel conduct), available at <http://ssrn.com/abstract=1865971>.

tion from countries that do not criminalize cartel conduct, the Antitrust Division may be able to rely on other criminal charges that qualify for extradition, as demonstrated by the *Norris*, *Bennett*, and *Porath* cases. In *Norris*, although the executive was charged with Sherman Act violations and obstruction of justice, extradition was based solely on the three obstruction-of-justice charges, so *Norris* could be prosecuted in the United States only on the covered obstruction charges. In the *Bennett* case, although the lead defendant was convicted of bid rigging at trial, *Bennett's* extradition was based on charges of kickback-and-fraud conspiracy and major fraud against the United States. The *Porath* case demonstrates that the Antitrust Division may seek extradition on both Sherman Act and related charges, specifically tax charges. Of the four extraditions to date, only *Pisciotti's* was based solely on antitrust charges.

*The credible threat and ability to extradite foreign executives directly impacts the enforcement of the Sherman Act outside the United States.*

**Nonpublic Charges.** Another issue is whether the charges filed by the Antitrust Division are public. If the charges are not public, a defendant residing abroad would be unaware of them and thus unable to assess whether the offenses might be covered by a particular extradition treaty.

A defendant may be extradited from a country other than his country of citizenship or residence. As demonstrated in the *Pisciotti* case, executives who travel internationally risk being arrested on an international arrest warrant based on unknown, pending charges. *Pisciotti* was extradited not from his native country, Italy, but from a foreign country, Germany, while he was traveling. Because he was not a German national, the German law barring extradition of Germans could not protect him. The indictment remained under seal for nearly three years until his arrest. After his arrest, the indictment was unsealed.

**Custody Status.** Custody status and length of custody are other factors to consider. Custody status is based largely on an assessment of the risk of flight. Custody may be imposed upon arrest in the country of extradition and is independently considered in the United States following extradition. Typically, the international nature of the charge and the defendant's meaningful ties to the United States, or lack thereof, are relevant factors for whether custody may be imposed.<sup>41</sup>

The length of detention can vary. *Pisciotti* remained in custody from the moment of his arrest at the airport in Germany through the extradition proceedings and through the U.S. court proceedings until his conviction and sentencing. Ultimately, he received credit in his federal sentence for the time he spent in custody during his extradition proceedings but he never was released. *Porath* was originally arrested in Israel and then held under house arrest during the extradition proceedings. Upon his extradition to the United States, he remained in custody during his federal court proceedings.

Finally, in some circumstances, an executive may be able to qualify for a transfer to his native country if the conditions of the International Prisoner Transfer Program are satisfied. For example, *Pisciotti's* plea agreement explicitly permitted him to apply to complete his sentence in Italy under the International Prisoner Transfer Program.

## Conclusion

The credible threat and ability to extradite foreign executives directly impacts the enforcement of the Sherman Act outside the United States. The four extraditions to date confirm the determination of the Antitrust Division to use this law enforcement tool.

<sup>41</sup> See generally 18 U.S.C. § 3142 (factors governing release or detention of a defendant pending trial); U.S. DEP'T OF JUSTICE, CRIMINAL RESOURCE MANUAL 26 (Release and Detention Pending Judicial Proceedings) (discussing legal standards and relevant factors), available at [http://www.justice.gov/usao/eousa/foia\\_reading\\_room/usam/title9/crm00026.htm](http://www.justice.gov/usao/eousa/foia_reading_room/usam/title9/crm00026.htm).

Although extradition cases present unique challenges and delays, the Antitrust Division has demonstrated its resolve to pursue and litigate extradition issues for many years, if necessary. An increasing number of countries have criminalized antitrust violations, expanding the number of jurisdictions in which extradition may be pursued. Even when the other country that is party to an extradition treaty may not have criminalized antitrust violations, the Antitrust Division may consider other charged offenses as a vehicle for extradition. Continuing analysis of the issues in extradition cases is important, given the international nature of many antitrust cases and efforts to strictly enforce the U.S. antitrust laws abroad. ●

# No Mistake About It: The Important Role of Antitrust in the Era of Big Data

Allen P. Grunes and Maurice E. Stucke

A few years ago, a *McKinsey Quarterly* article asked, “Are you ready for the era of ‘big data?’”<sup>1</sup> That era is now upon us. As FTC Chairwoman Edith Ramirez recently observed:

Thanks to smartphones and smart meters, wearable fitness devices, social media, connected cars, and retail loyalty cards, each of us is generating data at an unprecedented rate. In fact, in 2013 it was reported that an astonishing 90 percent of the world’s data was generated in the two preceding years. Today, the output of data is doubling every two years.<sup>2</sup>

With the Internet of Things, even more data will be collected about our everyday activities and habits through sensors on thermostats, light bulbs, refrigerators, watches, automobiles, and other everyday devices—even garbage cans.<sup>3</sup>

The business literature suggests that big data will play an increasingly important role in how companies compete. As the 2011 McKinsey Report noted, “Using big data will become a key basis of competition for existing companies,”<sup>4</sup> and “[i]n a big data world, a competitor that fails to sufficiently develop its capabilities will be left behind.”<sup>5</sup> Similarly, the Organisation for Economic Co-operation and Development (OECD) has observed that “[b]ig data now represents a core economic asset that can create significant competitive advantage for firms . . . .”<sup>6</sup>

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<sup>1</sup> Brad Brown et al., *Are You Ready for the Era of “Big Data”?*, MCKINSEY Q., Oct. 2011, available at [http://www.mckinsey.com/insights/strategy/are\\_you\\_ready\\_for\\_the\\_era\\_of\\_big\\_data](http://www.mckinsey.com/insights/strategy/are_you_ready_for_the_era_of_big_data).

<sup>2</sup> Edith Ramirez, Chairwoman, Fed. Trade Comm’n, *Big Data: A Tool for Inclusion or Exclusion 1* (Sept. 15, 2014), available at [http://www.ftc.gov/system/files/documents/public\\_statements/582421/big\\_data\\_workshop\\_opening\\_remarks\\_ftc\\_chairwoman\\_edith\\_ramirez\\_9-15-14.pdf](http://www.ftc.gov/system/files/documents/public_statements/582421/big_data_workshop_opening_remarks_ftc_chairwoman_edith_ramirez_9-15-14.pdf) (footnote omitted).

<sup>3</sup> See Gregory G. Wrobel, *Connecting Antitrust Standards to the Internet of Things*, ANTITRUST, Fall 2014, at 62; see also ORG. FOR ECON. CO-OPERATION & DEV. (OECD), *SUPPORTING INVESTMENT IN KNOWLEDGE CAPITAL, GROWTH AND INNOVATION 322* (2013) (“More than 30 million interconnected sensors are now deployed worldwide, in areas such as security, health care, the environment, transport systems or energy control systems, and their numbers are growing by around 30% a year.”) (citation omitted); *id.* at 320 (“With the increasing deployment and interconnection of (real-world) sensors through mobile and fixed networks (i.e. sensor networks), more and more offline activities are also digitally recorded, resulting in an additional tidal wave of data.”).

<sup>4</sup> JAMES MANIYIKA ET AL., MCKINSEY GLOBAL INST., *BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY 13* (2011) [hereinafter MCKINSEY REPORT], available at [http://www.mckinsey.com/insights/business\\_technology/big\\_data\\_the\\_next\\_frontier\\_for\\_innovation](http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation). See also *id.* at 23 (“Companies including Tesco, Amazon, Wal-Mart, Harrah’s, Progressive Insurance, and Capital One, and Smart, a wireless player in the Philippines, have already wielded the use of big data as a competitive weapon—as have entire economies . . . .”).

<sup>5</sup> *Id.* at 6; see also *id.* at 111 (“The use of big data will become a key basis of competition across sectors, so it is imperative that organizational leaders begin to incorporate big data into their business plans.”).

<sup>6</sup> OECD, *supra* note 3, at 319. See also OECD, *DATA-DRIVEN INNOVATION FOR GROWTH AND WELL-BEING: INTERIM SYNTHESIS REPORT 10* (2014) [hereinafter OECD INTERIM SYNTHESIS REPORT], available at <http://www.oecd.org/sti/inno/data-driven-innovation-interim-synthesis.pdf> (“An analysis of their business models reveals that Internet firms share one major commonality besides relying on the Internet as the backbone of their business operation, namely the use of large streams of data that is now commonly referred to as ‘big data . . . .’”).

[T]he European Commission's new antitrust chief, Margrethe Vestager, dubbed personal data as the "new currency of the Internet," and vowed to focus on how its large-scale collection entrenches the strength of big tech companies.

The collection and analysis of data by businesses is not limited to consumer data. For example, big data can allow an airline to better predict estimated times of arrival for planes in flight. But many aspects of big data are targeted at consumers and collect information about how we drive, how we read, how we shop, what we search for online, and where we are located. Computer scientists at Carnegie Mellon University recently did a study which showed that a dozen or so popular Android apps collect location information an average of 6,200 times on an individual over a two week period—an average of once every three minutes. “Does Groupon really need to know where you are every 20 minutes?” asked one of the researchers.<sup>7</sup> The collection of more and more personal information also raises privacy issues. Ninety-one percent of Americans feel they have “lost control” over how their personal information is collected or used by companies.<sup>8</sup>

Competition authorities in Europe are now beginning to make data, its uses, and its implications for competition law, a key focus. In June 2014, policymakers, enforcers, and scholars met in Brussels to discuss the implications of a data-driven economy on competition policy, consumer protection, and privacy law. The European Data Protection Supervisor's (EDPS) preliminary opinion discussed these issues in depth for the first time, which helped spark the debate and research on how the three areas of law (antitrust, privacy, and consumer protection) intersect.<sup>9</sup> Thereafter, the European Commission's new antitrust chief, Margrethe Vestager, dubbed personal data as the “new currency of the Internet,”<sup>10</sup> and vowed to focus on how its large-scale collection entrenches the strength of big tech companies. Here in the United States, FTC Chairwoman Ramirez made a similar comment to the *New York Times* this past December: “Today's currency is data.”<sup>11</sup>

In the December 2014 issue of *The Antitrust Source*, Darren Tucker and Hill Wellford published an article in which they argue that antitrust law has a limited role to play in the era of big data, going so far as to assert that “the acquisition and use of big data by online firms is not the type of conduct captured by the antitrust laws.”<sup>12</sup> We respectfully disagree. In our article we discuss why big data is not a passing antitrust fad and recommend some next steps for competition agencies.

### Implications of Big Data for Competition Policy

Big data is frequently characterized by four “Vs”: volume, velocity, variety, and value.<sup>13</sup> In our view,

<sup>7</sup> Elizabeth Dwoskin, *Apps Track Users—Once Every 3 Minutes*, WALL ST. J. (Mar. 24, 2015), <http://www.wsj.com/articles/apps-track-useronce-every-3-minutes-1427166955>.

<sup>8</sup> MARY MADDEN, PEW RESEARCH CTR., PUBLIC PERCEPTIONS OF PRIVACY AND SECURITY IN THE POST-SNOWDEN ERA 3 (2014), available at [http://www.pewinternet.org/files/2014/11/PI\\_PublicPerceptionsofPrivacy\\_111214.pdf](http://www.pewinternet.org/files/2014/11/PI_PublicPerceptionsofPrivacy_111214.pdf).

<sup>9</sup> EUR. DATA PROT. SUPERVISOR, Privacy and Competitiveness in the Age of Big Data: The Interplay Between Data Protection, Competition Law and Consumer Protection in the Digital Economy (preliminary opinion Mar. 2014) [hereinafter EDPS PRELIMINARY OPINION], available at [https://secure.edps.europa.eu/EDPSWEB/webdav/shared/Documents/Consultation/Opinions/2014/14-03-26\\_competition\\_law\\_big\\_data\\_EN.pdf](https://secure.edps.europa.eu/EDPSWEB/webdav/shared/Documents/Consultation/Opinions/2014/14-03-26_competition_law_big_data_EN.pdf).

<sup>10</sup> James Kanter, *Antitrust Nominee in Europe Promises Scrutiny of Big Tech Companies*, N.Y. TIMES BITS (Oct. 3, 2014, 4:20 AM), <http://bits.blogs.nytimes.com/2014/10/03/antitrust-nominee-in-europe-promises-eye-on-big-tech-companies/>.

<sup>11</sup> Edward Wyatt, *Raising the F.T.C.'s Voice, Softly*, N.Y. TIMES (Dec. 22, 2014), <http://www.nytimes.com/2014/12/22/business/federal-trade-commission-raises-its-voice-under-its-soft-spoken-chairwoman.html>.

<sup>12</sup> Darren S. Tucker & Hill B. Wellford, *Big Mistakes Regarding Big Data*, ANTITRUST SOURCE, Dec. 2014, at 1, [http://www.americanbar.org/content/dam/aba/publishing/antitrust\\_source/dec14\\_tucker\\_12\\_16f.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/dec14_tucker_12_16f.authcheckdam.pdf).

<sup>13</sup> See OECD, *supra* note 3, at 12 (“Value is a fourth V which is related to the increasing socioeconomic value to be obtained from the use of big data. It is the potential economic and social value that ultimately motivates the accumulation, processing and use of data.”); see also EXEC. OFFICE OF THE PRESIDENT, BIG DATA: SEIZING OPPORTUNITIES, PRESERVING VALUES 2 (2014), available at [http://www.whitehouse.gov/sites/default/files/docs/big\\_data\\_privacy\\_report\\_may\\_1\\_2014.pdf](http://www.whitehouse.gov/sites/default/files/docs/big_data_privacy_report_may_1_2014.pdf) [hereinafter WHITE HOUSE BIG DATA REPORT] (“Most definitions [of “big data”] reflect the growing technological ability to capture, aggregate, and process an ever-greater volume, velocity, and variety of data”).

these features of big data have several implications for competition policy, including raising barriers to entry and foreclosing access to essential inputs.

First, many online companies have adopted business models that rely on personal data as a key input. One common business model involves two-sided markets, where companies offer consumers free technologies, services, and products with the aim of acquiring more valuable data from these consumers to assist advertisers to target the right audience.

Second, companies undertake data-driven strategies to obtain and sustain competitive advantages. Companies increasingly strive to gain a “big data advantage” over their rivals. One MIT-led study showed that the more companies characterized themselves as data-driven, the better they performed on objective measures of financial and operational results. “[C]ompanies in the top third of their industry in the use of data-driven decision making were, on average, 5% more productive and 6% more profitable than their competitors.”<sup>14</sup>

Third, the battle over personal data has spread to strategic acquisitions. Because the value of data depends on volume, variety, and velocity, companies increasingly focus on opportunities to acquire a data-advantage through mergers. The OECD reported that the number of “big data related” mergers and acquisitions more than doubled between 2008 and 2012.<sup>15</sup>

Fourth, when data-driven businesses incur significant costs to obtain, store, and analyze data (as well as provide “free” services to collect data), they may have strong incentives to limit their competitors’ access to these datasets, prevent others from sharing the datasets, and could likely be averse to data-portability policies that threaten their data-related competitive advantage.

Fifth, companies, whose business model depends on securing a competitive advantage through big data, may also devise anticompetitive data-driven strategies. Such strategies may include preventing rivals from accessing the data (such as through exclusivity provisions with third-party providers) or foreclosing opportunities for rivals to procure similar data (such as making it harder for consumers to adopt other technologies or platforms).

Sixth, as companies undertake data-driven business strategies, one might expect them to raise data-driven efficiencies as a defense to justify potentially anticompetitive mergers. In closing its investigation of the agreement between Microsoft and Yahoo!, the DOJ found that the transaction would create a more viable competitive alternative to Google because of the importance of scale to competitive performance in search and search advertising, and suggested that the transaction would enable more rapid improvements in Microsoft’s search and search advertising technology.<sup>16</sup> In *United States v. Bazaarvoice*, the government rejected the parties’ efficiencies claims. The trial court agreed, noting a lack of evidence that the consummated merger had led to an improved product fueled by more data, or to lower prices, or to more innovation.<sup>17</sup> And in the TomTom/Tele Atlas merger, the parties argued to the European Commission that data in the form of feedback from TomTom’s large customer base would allow the merged firm to produce better maps faster.

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<sup>14</sup> See Andrew McAfee & Erik Brynjolfsson, *Big Data: The Management Revolution*, HARV. BUS. REV., Oct. 2012, at 60, 64, available at <https://hbr.org/2012/10/big-data-the-management-revolution/ar>.

<sup>15</sup> See EUR. DATA PROT. SUPERVISOR, REPORT OF WORKSHOP ON PRIVACY, CONSUMERS, COMPETITION AND BIG DATA 1 (2014), available at [https://secure.edps.europa.eu/EDPSWEB/webdav/site/mySite/shared/Documents/Consultation/Big%20data/14-07-11\\_EDPS\\_Report\\_Workshop\\_Big\\_data\\_EN.pdf](https://secure.edps.europa.eu/EDPSWEB/webdav/site/mySite/shared/Documents/Consultation/Big%20data/14-07-11_EDPS_Report_Workshop_Big_data_EN.pdf).

<sup>16</sup> Press Release, U.S. Dep’t of Justice, Statement of the Department of Justice Antitrust Division on its Decision to Close Its Investigation of the Internet Search and Paid Search Advertising Agreement Between Microsoft Corporation and Yahoo! Inc. (Feb. 18, 2010), available at <http://www.justice.gov/opa/pr/statement-department-justice-antitrust-division-its-decision-close-its-investigation-internet>.

<sup>17</sup> *United States v. Bazaarvoice, Inc.*, Case No. 13-cv-00133-WHO, 2014 WL 203966, at \*62–64 (N.D. Cal. Jan. 8, 2014).

The EC ultimately did not estimate the likely data-driven efficiencies since it found the transaction not to be anticompetitive irrespective of efficiencies.<sup>18</sup>

As these matters reflect, the parties at times will use the scale of data as an efficiency defense. As a result, competition authorities must understand both the competitive benefits and risks of these data-driven strategies. At times, a data-driven merger may provide sufficient scale for smaller rivals to effectively compete. At other times, data may be used primarily as an entry barrier.

### Debunking Some of the Myths of Big Data

Data-driven business models raise significant implications for privacy, consumer protection, and competition law. Our competition authorities are to some extent in the early stages of considering the antitrust implications of data and developing the appropriate tools and frameworks. On the one hand, this is not surprising, as it takes time for the agencies to come up the learning curve when dealing with new technological issues and business models. But there are also a number of myths in circulation, and these myths may be causing the agencies to be less active than they should be and are leading to too little enforcement. We can identify ten myths about big data and competition law:

1. Privacy laws serve different goals from competition law.
2. The current antitrust tools fully address the big data issues.
3. Markets currently solve any privacy issue.
4. Data-driven online industries are not subject to network effects.
5. Data-driven online industries have low entry barriers.
6. Data have little, if any, competitive significance, since data are ubiquitous, low cost, and widely available.
7. Data have little, if any, competitive significance, as companies cannot exclude smaller companies' access to key data or use data to gain a competitive advantage.
8. Competition officials should not concern themselves with data-driven industries because competition always comes from surprising sources. (Who would have predicted Google's or Facebook's success 15 years ago?)
9. Competition officials should not concern themselves with data-driven industries because consumers invariably benefit from free online services.
10. Consumers who use these free services do not have any reasonable expectation of privacy.

The reality is far more nuanced. We will focus on a few of the myths here.

**Privacy as an Antitrust Concern.** Privacy has been recognized as a non-price dimension of competition in the sense that firms can compete to offer greater or lesser degrees of privacy protection.<sup>19</sup> Like other aspects of non-price competition, such as quality, variety, and innovation, privacy protection cannot be measured the same way as price. The issue is potentially compounded by the fact that different consumers have different privacy preferences. This has led some

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<sup>18</sup> Case COMP/M.4854—TomTom/Tele Atlas, Comm'n Decision, 2008 O.J. (C 237) 53–54, ¶¶ 245–250.

<sup>19</sup> See, e.g., Maureen K. Ohlhausen & Alexander Okuliar, *Competition, Consumer Protection, and the Right [Approach] to Privacy*, 80 ANTITRUST L.J. (forthcoming 2015) (manuscript at 36) ("Privacy . . . increasingly represents a non-price dimension of competition."), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2561563](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2561563).

authors to conclude that, except in a very narrow range of situations, privacy issues are better handled by consumer protection laws.<sup>20</sup>

Additionally, privacy issues often arise in two-sided markets. Consumers are on one side of the market, and they receive services that are subsidized by advertisers on the other side. Both consumers and advertisers may feel welfare effects, but there has been a tendency at the agencies to focus on the “paying” side of the market and to assume that, in most cases, that focus will also address effects on the subsidized or “free” side. The agencies have been slow to develop a framework that takes both sides of the market into consideration.

Despite the challenges, there have been a number of attempts to articulate theories under which privacy could factor into the antitrust analysis of a merger or other conduct.

Peter Swire, for example, has argued that a loss of privacy may be viewed as a “reduction in the quality of a good or service,” especially to consumers who prefer more rather than less privacy.<sup>21</sup> Writing in 2007, at the time of the Google/DoubleClick merger, he noted that the merger would combine Google’s “deep” information about users who are on Google sites with DoubleClick’s “broad” information about where a user goes after leaving Google. He concluded, “For the many millions of individuals with high privacy preferences, this may be a significant reduction in the quality of the search product . . . .”<sup>22</sup>

The FTC’s closing statement in Google/DoubleClick took an ambiguous position on whether privacy degradation was an antitrust concern. On the one hand, the closing statement analogizes privacy to “concerns about environmental quality or impact on employees” that are “important policy questions for the Nation” but “unrelated to antitrust concerns” and therefore beyond the Commission’s “legal authority” in merger review.<sup>23</sup> On the other hand, the closing statement suggests that consumer privacy may be a “non-price attribute[] of competition” and states that the FTC had in fact “investigated the possibility that this transaction could adversely affect non-price attributes of competition, such as consumer privacy” but concluded that the evidence was not there.<sup>24</sup>

Commissioner Pamela Jones Harbour dissented from the FTC’s decision to close its investigation of the Google/DoubleClick merger. She wrote that the standard antitrust analysis did not present the whole range of merger-related competitive effects, noting in particular that the majority’s analysis focused on online advertisers, while ignoring the potential impact of the transaction on consumers and consumer privacy.<sup>25</sup>

Such ambiguity underscores that enforcement agencies are more comfortable assessing a merger’s effects on prices and less comfortable assessing its non-price effects, including qual-

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<sup>20</sup> See, e.g., *id.* at 44 (“Although privacy can be (and is today) a dimension of competition, the more direct route to protecting privacy as a norm lies in the consumer protection laws.”).

<sup>21</sup> Peter Swire, *Protecting Consumers: Privacy Matters in Antitrust Analysis*, CTR. FOR AM. PROGRESS (Oct. 19, 2007), <http://www.americanprogress.org/issues/regulation/news/2007/10/19/3564/protecting-consumers-privacy-matters-in-antitrust-analysis/>.

<sup>22</sup> *Id.*

<sup>23</sup> Statement of the Fed. Trade Comm’n, Google/DoubleClick, FTC File No. 071-0170, at 2 (Dec. 20, 2007), available at [https://www.ftc.gov/system/files/documents/public\\_statements/418081/071220googledc-commstmt.pdf](https://www.ftc.gov/system/files/documents/public_statements/418081/071220googledc-commstmt.pdf).

<sup>24</sup> *Id.* at 2–3.

<sup>25</sup> Dissenting Statement of Commissioner Pamela Jones Harbour at 9–10, Google/DoubleClick, FTC File No. 071-0170, at 9–10 (Dec. 20, 2007), available at [https://www.ftc.gov/sites/default/files/documents/public\\_statements/statement-matter-google/doubleclick/071220harbour\\_0.pdf](https://www.ftc.gov/sites/default/files/documents/public_statements/statement-matter-google/doubleclick/071220harbour_0.pdf).

ity.<sup>26</sup> Privacy is more complicated because, unlike significant increases in price, degradation in privacy protection may not be observable to consumers. But being difficult to observe is not a reason to disregard privacy degradation as a competitive harm. Moreover, privacy is not a social cost, such as air pollution or impact on employment, but, as we discuss below, part of the bargain when consumers use an online service.

**“Free” Products Require a Different Antitrust Framework.** Standard economic tools need to be used more carefully in online markets because some of the tools of market definition and market power break down when the price to consumers is zero, as is often the case in these markets.<sup>27</sup> For example, one cannot use the “hypothetical monopolist” test, which considers whether a hypothetical monopolist could raise prices by a small but significant non-transitory amount, such as 5 or 10 percent because, as one commentator puts it, “5 percent of nothing is nothing, and because the nature of the product may be such that the hypothetical monopolist would still find it profit-maximizing to price at zero.”<sup>28</sup> A different framework is therefore needed to assess the contours of relevant markets and the potential for market power.

One way to think about the issue is to consider these online companies as advertising-supported media businesses, compare them to more “traditional” media (e.g., television, radio), and ask how they are similar and dissimilar. While not self-evident, Facebook, Google, Twitter, and many other online services in which user data are important (and user privacy may be an issue) are not just technology companies—they are media companies.<sup>29</sup> Moreover, as advertising-supported media, they, like much of the traditional media, are free to the user.<sup>30</sup> As with traditional media, advertisers subsidize the cost of producing and distributing the product—whether that product is a search engine, a social network, a platform for user-generated travel reviews, user-generated videos, or some other application—and advertising dollars account for most of the revenues.

But at least two important differences exist between online media and traditional media. First, online media businesses collect a significant volume of consumer personal data, often on a real-time basis.<sup>31</sup> Second, to collect that information, online companies stand in a different relationship to the ultimate consumer—the viewers, readers, and listeners. With traditional media, the business

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<sup>26</sup> Ariel Ezrachi & Maurice E. Stucke, *The Curious Case of Competition and Quality* (Univ. of Tenn. Legal Studies Research Paper No. 256, 2014; Oxford Legal Studies Research Paper No. 64, 2014), available at <http://ssrn.com/abstract=2494656>.

<sup>27</sup> See David S. Evans, *The Antitrust Economics of Free*, 7 COMPETITION POL’Y INT’L, Spring 2011, at 71, 81.

<sup>28</sup> *Id.* at 84.

<sup>29</sup> Nick Bilton, *Is Twitter a Media or Technology Company?*, N.Y. TIMES BITS (July 25, 2012, 10:02 AM), <http://bits.blogs.nytimes.com/2012/07/25/is-twitter-a-media-or-technology-company/>; Shel Israel, *Facebook Is a Media Company—And So Are You*, FORBES (May 17, 2012, 12:27 PM), <http://www.forbes.com/sites/shelisrael/2012/05/17/facebook-is-a-media-company-so-are-you-and-i/>. See Nat Ives, *Advertisers’ Top-Ranked Media Company Is . . . Google*, ADVERT. AGE (Jan. 30, 2013), <http://adage.com/article/media/advertisers-top-ranked-media-company-google/239481/>.

<sup>30</sup> See, e.g., David S. Evans, *Antitrust Issues Raised by the Emerging Global Internet Economy*, 102 NW. U. L. REV. 1987, 1992 (2008) (“Many Web businesses follow the traditional advertising-supported media model. Content is used to attract traffic. Access to that traffic is sold to advertisers. The content is usually made available for free so that advertising is the primary source of revenue and profits.”).

<sup>31</sup> See, e.g., Craig Timberg, *Facebook Privacy Targeted by Austrian Law Student*, WASH. POST (Oct. 19, 2012), [http://articles.washingtonpost.com/2012-10-19/business/35501337\\_1\\_facebook-privacy-facebook-headquarters-facebook-founder-mark-zuckerberg](http://articles.washingtonpost.com/2012-10-19/business/35501337_1_facebook-privacy-facebook-headquarters-facebook-founder-mark-zuckerberg) (discussing a 25-year old Austrian law student who requested his file from Facebook and discovered that the company had 1,222 pages of data relating to him); Alexis C. Madrigal, *I’m Being Followed: How Google—And 104 Other Companies—Are Tracking Me on the Web*, ATLANTIC (Feb. 29, 2012, 2:57 PM), <http://www.theatlantic.com/technology/archive/2012/02/im-being-followed-how-google-151-and-104-other-companies-151-are-tracking-me-on-the-web/253758/>.

relationship is exclusively between the advertiser and the media company. When consumers watch broadcast television, they are not subject to a contract with the network. Consumers are providing “eyeballs” that the broadcaster can sell to advertisers, but the advertiser has the contractual relationship with the broadcaster.

Online media companies, in contrast, often have a direct contractual relationship embodied in the “terms of service” with the consumer. Google’s terms of service, for example, state: “By using our Services, you are agreeing to these terms.”<sup>32</sup> If users search on Google, sign up for Facebook, or check out a hotel on TripAdvisor, they agree to the “terms of service,” including the company’s privacy policy, which governs what it can and cannot do with users’ information.

Antitrust enforcers historically ignored the viewer’s or listener’s role in traditional radio and television media. This in itself may have been a mistake because there is some evidence, at least in broadcast radio, that listeners ended up with poorer quality radio and industry concentration led to higher advertising rates.<sup>33</sup> That incomplete analysis is more problematic in online markets, where platforms “bargain” with (or impose on) consumers terms for information use, where such information is a large part of the advertiser’s value proposition, and where business practices (including privacy policies as well as some targeting) on the “paid” side of the market can adversely affect consumers.

Online firms should not be able to trivialize the consumer relationship by asserting that the product is “free” and that most consumers are happy to agree to the terms of service and privacy policies. Often consumers do not even read such terms. In fact, if the business model is to work at all, the economic exchange taking place between consumer and online firm is critical. Without it, advertisers would likely not be willing to pay nearly as much for online advertising, nor would third parties pay nearly as much for consumer data.<sup>34</sup>

The fact that online firms have been able to convince some courts that there is no product market for “free” services like search,<sup>35</sup> and convince agencies to treat online media as just another form of traditional media where the consumer can be ignored, paints a false picture.

***Ubiquitous Data, Low Entry Barriers, No Switching Costs, and Other Similar Myths.*** One must be skeptical of claims that data are ubiquitous, low cost, and widely available. If personal data were as freely available as sunshine, companies would not spend a considerable amount of money offering free services to acquire and analyze data to maintain a data-related competitive advantage. Firms whose business models are built on securing a data advantage understand the need for the exclusivity of particular data streams (or accessing and exploiting the data more quickly than their rivals). Such actions ensure that independent data sources are not available to competitors through licensing, purchase, or collection. Some mergers undoubtedly are motivated by companies seeking to retain a data advantage over competitors.

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<sup>32</sup> Terms of Service, GOOGLE, <http://www.google.com/intl/us-en/policies/terms/> (last visited Apr. 1, 2015).

<sup>33</sup> Maurice E. Stucke & Allen P. Grunes, *Why More Antitrust Immunity for the Media Is a Bad Idea*, 105 NW. U. L. REV. 1399, 1411–12 (2011); Maurice E. Stucke & Allen P. Grunes, *Toward a Better Competition Policy for the Media: The Challenge of Developing Antitrust Policies that Support the Media Sector’s Unique Role in Our Democracy*, 42 CONN. L. REV. 101, 124–25 (2009).

<sup>34</sup> Fred B. Campbell, Jr., *The Slow Death of ‘Do Not Track,’* N.Y. TIMES, Dec. 27, 2014, <http://www.nytimes.com/2014/12/27/opinion/the-slow-death-of-do-not-track.html> (“Online companies typically make money by utilizing data gleaned from their users to sell targeted ads. If the flow of user data slows down, so does the money. A study commissioned by the Interactive Advertising Bureau with researchers from Harvard Business School underscores the point: at least half of the Internet’s economic value is based on the collection of individual user data, and nearly all commercial content on the Internet relies on advertising to some extent.”).

<sup>35</sup> See, e.g., *Kinderstart.com, LLC v. Google, Inc.*, No. C 06-2057 JF (RS), 2007 WL 831806, at \*5 (N.D. Cal. Mar. 16, 2007) (“KinderStart cites no authority indicating that antitrust law concerns itself with competition in the provision of free services.”).

Moreover, entry barriers for data-driven online industries are not necessarily low. The DOJ's successful enforcement action against the merger of Bazaarvoice and its leading rival PowerReviews explicitly involved allegations and proof that data can serve as an entry barrier. *United States v. Bazaarvoice* involved the completed merger between the two largest providers of online ratings and reviews. In discussing the entry barrier documents, the court highlighted a document prepared by Bazaarvoice for the investor roadshow before its IPO. Among other things, this document talked about the company's ability to "leverage the data from its customer base" as "a key barrier [to] entry."<sup>36</sup> At trial, Bazaarvoice tried to walk away from these characterizations, saying it really was talking about the company's competitive advantages, and real economic barriers were minimal. The court disagreed: "Much of what Bazaarvoice refers to now as its 'competitive strengths' it used to call, accurately, significant barriers to entry."<sup>37</sup>

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In addition, online industries are frequently characterized by both switching costs and lock-in. As Carl Shapiro and Hal Varian observed, "Switching costs and lock-in are ubiquitous in information systems . . . ."<sup>38</sup> They further note, "First-mover advantages can be powerful and long-lasting in lock-in markets, especially those in information industries where scale economies are substantial."<sup>39</sup> The economics of big data, as the OECD recently noted, "[favors] market concentration and dominance."<sup>40</sup> Data-driven markets "can lead to a 'winner takes all' result where concentration is a likely outcome of market success."<sup>41</sup>

These considerations do not disappear with "free" products. Businesses develop strategies to exploit switching costs and lock-in, whether it is the investment of time needed to learn to use a platform, the number of complementary products such as apps that are available, or the fact that most of one's friends are on Facebook. Indeed, it may be more difficult to move a consumer away from a "free" good or service than one that he or she pays for. The fact that something is "free" may actually skew a consumer's evaluation of non-price dimensions of competition like product quality.<sup>42</sup>

***The Market Response to Privacy Concerns.*** Given that privacy trade-offs are so clearly a concern for the vast majority of Americans, it is noteworthy that there are no viable alternatives to the Internet giants that provide free services, but only at a heavy cost to user privacy. While some may argue the market supplies adequate privacy protection, in this section we explore some reasons why that may not be the case. Most significantly, the economic incentives run almost entirely in one direction—towards accumulating more personal data. As noted, online companies typically make money by utilizing data gleaned from their users to sell targeted ads; if the flow of user data slows down, so does the money. In other words, there is a competitive arms race, and the arms race is for more data.

In response, some have argued that online media offering privacy as a value to consumers have sprung up, such as DuckDuckGo, SnapChat, and Ghostery. However, these companies'

<sup>36</sup> *United States v. Bazaarvoice, Inc.*, Case No. 13-cv-00133-WHO, 2014 WL 203966, at \*50 (N.D. Cal. Jan. 8, 2014) (internal quotation marks omitted).

<sup>37</sup> *Id.* at \*3.

<sup>38</sup> CARL SHAPIRO & HAL R. VARIAN, *INFORMATION RULES: A STRATEGIC GUIDE TO THE NETWORK ECONOMY* 104 (1999).

<sup>39</sup> *Id.* at 168.

<sup>40</sup> OECD INTERIM SYNTHESIS REPORT, *supra* note 6, at 7.

<sup>41</sup> *Id.*

<sup>42</sup> See, e.g., Henry C. Su, *Thinking, Fast, Free, and Fashionable: Competition and Consumer Protection in a Mobile Internet World*, ANTITRUST, Fall 2012, at 82, 83–84.

market shares tend to be small. For example, Google had more than 5 billion daily searches last year while DuckDuckGo was in the low millions.<sup>43</sup>

From an economic standpoint, these privacy-enhancing services may be destined to remain niche players if, as appears likely, a “dysfunctional equilibrium” has developed in which firms and consumers do not have aligned incentives on privacy protection.<sup>44</sup> A small firm cannot simply decide to break out of the equilibrium by adopting more protective policies and clearer disclosures, because its demand won’t shift meaningfully; as a result, it will mostly be sacrificing revenue.

By contrast, a firm with market power may choose to use information in ways that do not benefit consumers but that benefit the firm. As Howard Shelanski has observed, one measure of a firm’s market power is the extent to which it can engage in behavior “without some benefit to consumers that offsets their reduced privacy and still retain users.”<sup>45</sup> The antitrust inquiry should focus on market power and competitive effects, as Shelanski suggests. Firms with market power may provide less privacy protection than firms in a competitive market.

### Next Steps for Competition Officials

The myths about big data paint with a broad brush and tend to obscure some of the legitimate challenges big data presents to competition officials. First and foremost, it is necessary for the antitrust agencies to understand the tradeoffs in the big data era, and to ask the right questions and use the right tools. Thus, focusing solely on one side of the market can be a mistake, particularly when effects are likely to be felt on both sides. Treating online media the same as traditional advertising-supported media is also likely to be a mistake. Ignoring privacy or believing that it is only a consumer protection problem is incorrect. And assumptions based on the alleged ubiquity of data and low entry barriers are often theoretically and factually unsupported. Below are several suggestions.

**Merger Retrospectives.** One cannot fault the competition agencies for overlooking big data if their current approach accurately predicts most mergers’ competitive effects. So how often did the agencies get it right? That is the value of doing merger retrospectives.

The need for retrospective studies is highlighted by John Kwoka’s recent effort to systematically look back at how the agencies have fared with merger remedies.<sup>46</sup> His work shows that remedies short of blocking anticompetitive mergers have not been demonstrably effective in preventing post-merger price increases. Conduct remedies, in particular, have proven to be quite ineffective. Professor Kwoka was focused on price effects; if the agencies are having trouble crafting effective remedies even there, one needs to worry about such difficulties when something other than price is at stake.

We may ask what has happened in data-driven mergers. And the answer here also suggests there is a need to examine past decisions. In 2010, for example, the FTC closed its investigation of Google/AdMob, the two leading mobile advertising networks, on the basis that Apple’s (then) recent entry into mobile advertising meant that it would quickly “become a strong mobile adver-

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<sup>43</sup> *Google Annual Search Statistics*, STATISTIC BRAIN (Jan. 9, 2015), <http://www.statisticbrain.com/google-searches/>; *DuckDuckGo Direct Queries per Day*, DUCKDUCKGO, <https://duckduckgo.com/traffic.html> (last visited Apr. 2, 2015).

<sup>44</sup> Joseph Farrell, *Can Privacy Be Just Another Good?*, 10 J. ON TELECOMM. & HIGH TECH. L. 251, 256–59 (2012).

<sup>45</sup> Howard A. Shelanski, *Information, Innovation, and Competition Policy for the Internet*, 161 U. PA. L. REV. 1663, 1689 (2013).

<sup>46</sup> See JOHN KWOKA, *MERGERS, MERGER CONTROL, AND REMEDIES: A RETROSPECTIVE ANALYSIS OF U.S. POLICY* (2015).

tising network competitor” on the iPhone platform.<sup>47</sup> At the end of 2014, however, despite the huge success of both the iPhone and iPad in the U.S. market, Apple’s share of mobile advertising revenue was about 2.5 percent.<sup>48</sup> The evidence ultimately showed that the FTC’s reliance on entry by a major company to resolve competitive concerns was mistaken.

The agencies should revisit significant data-driven mergers to see which ones turned out badly, to understand why their predictions failed, and to assess the adequacy of their analytical tools. There are a number of questions they should ask in the inquiry, including: Did the data-driven merger enable the tech giant to entrench or further increase its market power? Did the merger help shut out firms from entering the market? Were data combined in ways that adversely affected privacy? Were promises of innovation actually kept? Were entry barriers really low? In undertaking merger retrospectives, the competition agencies can assess whether their current tools are good at predicting the effects of data-driven mergers.

**Identifying Data-Driven Exclusionary Conduct.** A company whose business model is built fundamentally on big data will need to maintain a data advantage over its rivals. To maintain its competitive advantage, the company may be tempted to prevent smaller rivals and potential entrants from accessing such data, which might be exclusionary under the antitrust laws.

Thus, competition authorities need to be sensitive to data-driven business strategies, including strategies in which the purpose and effect are to exclude rivals. As the EDPS recognized, “Extracting value from big data has become a significant source of power for the biggest players in internet markets.”<sup>49</sup> The EDPS identified several issues for competition officials to consider (in coordination with privacy and consumer protection officials):

- how the control of personal information contributes to market power in the digital economy and the implications for data protection;
- the risks to the consumer posed by concentrations and the abuse of market dominance where firms process massive amounts of personal data; and
- how the growth of a vibrant market for privacy-enhancing services can be encouraged by strengthening informed consumer choice.<sup>50</sup>

The recent inadvertently disclosed portions of the FTC staff’s recommendation in the Google investigation identify data-driven exclusionary strategies, including exclusionary agreements with websites for syndicated search and search advertising services.<sup>51</sup> The Commission’s vote to close its investigation seems to reveal some uncertainty as to the antitrust significance of such strategies. There also appears to be uncertainty about the appropriate legal standard and the balancing required under Section 2 of the Sherman Act. Is it enough for a company to offer “plausible procompetitive justifications” for its decisions?<sup>52</sup> Or is something more required?

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<sup>47</sup> Statement of the Fed. Trade Comm’n, Google/AdMob, FTC File No. 101-0031, at 1 (May 21, 2010), available at [https://www.ftc.gov/sites/default/files/documents/closing\\_letters/google-inc./admob-inc/100521google-admobstmt.pdf](https://www.ftc.gov/sites/default/files/documents/closing_letters/google-inc./admob-inc/100521google-admobstmt.pdf).

<sup>48</sup> Trefis Team, *How Apple Is Revamping Its iAd Platform*, FORBES (Dec. 18, 2014, 1:36 PM), <http://www.forbes.com/sites/greatspeculations/2014/12/18/how-apple-is-revamping-its-iad-platform/>.

<sup>49</sup> EDPS PRELIMINARY OPINION, *supra* note 9, at 6.

<sup>50</sup> *Id.* at 8.

<sup>51</sup> Memorandum from the Fed. Trade Comm’n, Bureau of Competition Staff to the Comm’n iii (Aug. 8, 2012), available at <http://graphics.wsj.com/google-ftc-report/img/ftc-ocr-watermark.pdf>.

<sup>52</sup> See Statement of the Fed. Trade Comm’n, Google Inc., FTC File No. 111-0163, at 3 (Jan. 3, 2013), available at [https://www.ftc.gov/system/files/documents/public\\_statements/295971/130103googlesearchstmtofcomm.pdf](https://www.ftc.gov/system/files/documents/public_statements/295971/130103googlesearchstmtofcomm.pdf).

In the merger context, the DOJ considered data-driven exclusionary conduct in its review of Google's acquisition of ITA.<sup>53</sup> Likewise, the European Commission provided a roadmap for analyzing exclusionary behavior in its discussion of the Facebook/WhatsApp merger.<sup>54</sup> The analysis of exclusionary strategies involving data needs to be further developed, as does the appropriate framework.

**Assessing Data-Driven Efficiencies Claims.** The four Vs of data, as we discuss, are neither invariably good, nor bad, nor neutral. Big data and big data analysis can yield significant efficiencies that promote citizen well-being. Although no company has prevailed in the United States on an efficiency defense in court when defending against a merger challenge, the courts and agencies do take account of efficiencies.<sup>55</sup> The competition authorities at times rely on efficiency claims to close a merger investigation.

As companies undertake data-driven business strategies, one might expect them to claim data-driven efficiencies. As noted, efficiencies claims were made and considered in Microsoft/Yahoo!, *United States v. Bazaarvoice*, and TomTom/Tele Atlas. In each of these matters, the parties claimed that the merger would allow a company to produce better products faster because of data.

One question is whether, and the extent to which, consumers benefit from claimed product improvements. What about mergers that also result in some measure of harm on the consumer side? Peter Swire suggested that one way to logically include privacy harms to consumers in the antitrust analysis of mergers is to consider it as an offset to the claimed efficiencies.<sup>56</sup>

The Horizontal Merger Guidelines state that the agencies will only credit efficiencies that “do not arise from anticompetitive reductions in output or service.”<sup>57</sup> If there is some negative welfare effect on the consumer side, and the alleged efficiency gain derives from that effect, the Guidelines’ analysis suggests that such efficiencies should not be credited.

Finally, there is reason to be skeptical of blanket claims that increased data enhances innovation. The agencies, in our view, have been too willing to uncritically accept claims that more data invariably results in product improvements that benefit consumers.<sup>58</sup> As Howard Shelanski observed, digital platforms “might use the [customer] information to improve offerings and make

[T]here is reason to  
be skeptical of blanket  
claims that increased  
data enhances  
innovation.

<sup>53</sup> Complaint at 3, 10–13, *United States v. Google Inc.*, No. 1:11-cv-00688 (D.D.C. Apr. 8, 2011), available at <http://www.justice.gov/atr/cases/f269600/269618.pdf>.

<sup>54</sup> See Case COMP/M.7217—Facebook/WhatsApp, Comm’n Decision, 2014 O.J. (C 7239) 24–25, ¶ 134 (asking whether the parties control any essential parts of the network or any mobile operating system; whether users of consumer communications apps are locked-in to any particular physical network, hardware solution or anything else that needs to be replaced in order to use competing products; whether the parties control and limit portability of data; whether the parties have any means to preclude competitors from recreating a user’s network on the parties’ applications; and whether the parties’ applications are pre-installed on a large base of mobile phones, tablets or PCs, and if so whether “status quo bias” potentially can affect consumers’ choices).

<sup>55</sup> See, e.g., *FTC v. H.J. Heinz Co.*, 246 F.3d 708, 720–22 (D.C. Cir. 2001).

<sup>56</sup> Swire, *supra* note 21.

<sup>57</sup> U.S. Dep’t of Justice & Federal Trade Comm’n, Horizontal Merger Guidelines § 10 (2010), available at <http://www.justice.gov/atr/public/guidelines/hmg-2010.pdf>.

<sup>58</sup> See, e.g., Statement of the Fed. Trade Comm’n, Google/DoubleClick, *supra* note 23, at 12 (“At bottom, the concerns raised by Google’s competitors regarding the integration of these two data sets—should privacy concerns not prevent such integration—really amount to a fear that the transaction will lead to Google offering a superior product to its customers.”). See also Statement of the Fed. Trade Comm’n, Google Inc., *supra* note 51, at 3 (“Challenging Google’s product design decisions in this case would require the Commission—or a court—to second-guess a firm’s product design decisions where plausible procompetitive justifications have been offered, and where those justifications are supported by ample evidence.”).

service faster and more individualized, or they might simply collect the data and hoard it for its option value or competitive advantage.”<sup>59</sup> The claim that a company will be able to offer better products or services with additional data, even if it cannot say what such offerings are, is a trap. Parties’ product improvement claims should be evaluated as cautiously and critically as other efficiency claims.

**Coordinating with Privacy and Consumer Protection Officials.** The consensus is that the current notice-and-consent framework is inadequate to safeguard privacy.<sup>60</sup> Consumers are generally unaware who has access to their personal information, what data are being used, how and when the data are being used, when the data are being sold, and the privacy implications of the data’s use.<sup>61</sup> “Data fusion” (i.e., linking data of diverse types from disparate sources in support of unified search, query, and analysis) may yield potential uses that the consumer never envisioned.<sup>62</sup> Some apps do not even publish a privacy policy.<sup>63</sup> Consumers have little inclination to read the lengthy, detailed, and often opaque privacy notices.<sup>64</sup> Even if they read the privacy notices, consumers generally cannot negotiate better terms.<sup>65</sup>

The imbalance of power between consumers and data users is also a concern.<sup>66</sup> As the President’s Council of Advisors on Science and Technology recently concluded, “The provider offers a complex, take-it-or-leave-it set of terms, while the user, in practice, can allocate only a few seconds to evaluating the offer. This is a kind of market failure.”<sup>67</sup>

Moreover, the law has not settled as to who owns the data.<sup>68</sup> The legal rights and protections over personal data can have competition policy implications. Increasing consumers’ control over

<sup>59</sup> Shelanski, *supra* note 45, at 1689.

<sup>60</sup> EXEC. OFFICE OF THE PRESIDENT, PRESIDENT’S COUNCIL OF ADVISORS ON SCIENCE AND TECHNOLOGY, BIG DATA AND PRIVACY: A TECHNOLOGICAL PERSPECTIVE xi (2014) [hereinafter PCAST REPORT], available at [https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast\\_big\\_data\\_and\\_privacy\\_-\\_may\\_2014.pdf](https://www.whitehouse.gov/sites/default/files/microsites/ostp/PCAST/pcast_big_data_and_privacy_-_may_2014.pdf) (“The framework of notice and consent is . . . becoming unworkable as a useful foundation for policy.”); *id.* at 38 (“As a useful policy tool, notice and consent is . . . simply too complicated for the individual to make fine-grained choices for every new situation or app.”).

<sup>61</sup> WHITE HOUSE BIG DATA REPORT, *supra* note 13, at 51; PCAST REPORT, *supra* note 60, at 38–39, 47.

<sup>62</sup> EDPS PRELIMINARY OPINION, *supra* note 9, at 34; PCAST REPORT, *supra* note 60, at 21.

<sup>63</sup> EDPS PRELIMINARY OPINION, *supra* note 9, at 34 (“[O]nly 61% of most popular apps have a privacy policy”).

<sup>64</sup> *Id.* at 34 (“[A] study has calculated that it would take on average each internet user 244 hours per year to read the privacy policy belonging to each website they view, which is more than 50% of the time that average user spends on the internet. These privacy policies typically contain statements about the future use of data which are concealed in legal small print or which require decoding due to vague, elastic terms like ‘improving customer experience.’”); PCAST REPORT, *supra* note 60, at 38 (“In some fantasy world, users actually read these notices, understand their legal implications (consulting their attorneys if necessary), negotiate with other providers of similar services to get better privacy treatment, and only then click to indicate their consent. Reality is different.”).

<sup>65</sup> EDPS PRELIMINARY OPINION, *supra* note 9, at 35 (“Customers have limited room, if any, to negotiate the terms and conditions of use, representing a ‘significant imbalance’ between provider and user. . . .”).

<sup>66</sup> *Id.* at 8 (“The digital economy is marked by strong, dynamic growth, a high turnover of new services, market concentration involving a few overwhelmingly dominant players, and an ever greater imbalance between big companies on the one side, and SMEs and individual users on the other side.”).

<sup>67</sup> PCAST REPORT, *supra* note 60, at xii.

<sup>68</sup> MCKINSEY REPORT, *supra* note 4, at 95 (“Laws are generally unclear on which constituency—from mobile operators, platform owners, application developers, and handset manufacturers, to actual users—owns the right to collect, aggregate, disseminate, and use personal location data for commercial purposes. . . . A framework that clearly describes the permissible and prohibited use of these data would be beneficial for all stakeholders.”). See also WHITE HOUSE BIG DATA REPORT, *supra* note 13, at 9 (“The technological trajectory . . . is clear: more and more data will be generated about individuals and will persist under the control of others.”).

their data can increase data portability, thus potentially reducing future barriers to entry.<sup>69</sup> A similar concept involves personal “data lockers,” “which allow users to contribute and edit the data they are willing to share with third parties in exchange for a portion of the proceeds when their data is sold.”<sup>70</sup>

In empowering consumers to easily select their privacy preferences and choose providers that match their privacy preferences,<sup>71</sup> these privacy safeguards could lower consumers’ search, transaction, and switching costs, and increase the incentive of companies to enter the market. As the EDPS wrote, data portability could release synergies between competition law and data protection law in at least two ways. First, it could help avoid consumer lock-in problems, similar to the benefits of number portability provided for in telecommunications law. Second, it could empower consumers to take advantage of third-party value-added services while facilitating competitors’ access to the market, for example, through the use of product comparison sites or of companies offering energy advice based on smart metering data.<sup>72</sup>

As a result, competition officials should coordinate with privacy and consumer protection officials in several areas:

1. Identify and understand the potential consumer harms arising from a data-driven economy, including the harms that arise due to insufficient competition;
2. Update the analytical tools for free services to better predict and assess how mergers and restraints can cause these harms;
3. Understand firms’ current incentives (and disincentives) to compete on and invest in privacy enhancing and enhanced technologies and services;
4. Develop a framework that fosters a range of business models, so that informed consumers have a competitive array of choices that better match the privacy trade-offs involved; and
5. Consider synergies (and potential inefficiencies) in the privacy, consumer protection, and

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<sup>69</sup> EDPS PRELIMINARY OPINION, *supra* note 9, at 32 (“Options [for remedies in competition decisions involving personal information] might include: offering users a paid service which minimized collection and retention of personal information; applying a proportionate limit to the retention of customer data, for example along the lines of the ‘compare and forget’ method recommended by the Dutch data protection authority; implementing data portability by giving the user options to withdraw their personal information and to port it to another service provider . . . ; this would potentially empower individuals while also promoting competitive market structures; and placing strict controls on information processing across different parts of the business for incompatible purposes.” (footnotes omitted)).

<sup>70</sup> OECD, EXPLORING THE ECONOMICS OF PERSONAL DATA: A SURVEY OF METHODOLOGIES FOR MEASURING MONETARY VALUE 34 (2013); *id.* at 6 (“New ‘data lockers’ allow users to contribute and control data sharing with third parties in exchange for a portion of the proceeds from the use of their data. These data exchanges could provide new market-based estimates of monetary values, and potentially improve transparency about how data is collected, sold and used.”).

<sup>71</sup> PCAST REPORT, *supra* note 60, at xii (“A consumer might choose one of several ‘privacy protection profiles’ offered by the intermediary, which in turn would vet apps against these profiles.”).

<sup>72</sup> EDPS PRELIMINARY OPINION, *supra* note 9, at 36 (footnotes omitted); PCAST REPORT, *supra* note 60, at 41 (“Simply by vetting apps, the third-party organizations would automatically create a marketplace for the negotiation of community standards for privacy. To attract market share, providers (especially smaller ones) could seek to qualify their offerings in as many privacy-preference profiles, offered by as many different third parties, as they deem feasible. The Federal government (e.g., through the National Institute of Standards and Technology) could encourage the development of standard, machine-readable interfaces for the communication of privacy implications and settings between providers and assessors.”).

competition laws to promote competition, consumers' privacy interests and ultimately citizens' well-being.<sup>73</sup>

### Conclusion

Competition law will play an integral role to ensure that we capture the benefits of a data-driven economy while mitigating its associated risks. When the European Parliament suggested the possibility of breaking up Google, the U.S. mission to the EU and various commenters reacted by saying that such a step would be to "politicize" antitrust.<sup>74</sup> Whatever the merits of a proposed Google break-up, the United States cannot chastise the EU for "politicizing" antitrust while it turns a blind eye to data's competitive risks. The U.S. competition authorities should take the lead in recognizing data's importance and the implications of a few firms' unparalleled system of harvesting and monetizing their data trove. ●

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<sup>73</sup> OECD INTERIM SYNTHESIS REPORT, *supra* note 6, at 8. The FTC took a step in this direction in connection with the acquisition of WhatsApp by Facebook. The Director of the Bureau of Consumer Protection sent a letter emphasizing that WhatsApp had made a number of promises to users about the limited nature of the data it collected, maintained, and shared. The letter made clear that those promises had to be honored after the acquisition by Facebook, which did not offer the same degree of protection. Letter from Jessica L. Rich, Dir., Bureau of Consumer Protection, Fed. Trade Comm'n, to Erin Egan, Chief Privacy Officer, Facebook, Inc. & Anne Hoge, Gen. Counsel, WhatsApp Inc. (Apr. 10, 2014), available at [https://www.ftc.gov/system/files/documents/public\\_statements/297701/140410facebookwhatapltr.pdf](https://www.ftc.gov/system/files/documents/public_statements/297701/140410facebookwhatapltr.pdf).

<sup>74</sup> Tom Fairless, *U.S. Expresses Concern over EU Antitrust Debate on Google*, WALL ST. J. (Nov. 25, 2014, 2:23 PM), <http://www.wsj.com/articles/u-s-expresses-concern-over-google-antitrust-debate-in-europe-1416943414>.

# The Voice of the Consumer in the Courtroom: How “Big Data” Can Improve Injury Evidence in Lanham Act False Advertising Cases

**Jeff Armstrong**

The Lanham Act is a vital commercial policy tool supporting long-term economic growth. In a market economy, consumers and businesses depend crucially on brands and informative, truthful advertising to lower search costs, reduce uncertainty, and support intangible investments that intensify competition.

The Lanham Act allows companies to sue rivals in federal court for false or misleading advertising and trademark infringement. Plaintiffs and defendants in Lanham Act cases often use expert testimony to identify the economic injury—or lack thereof—of the challenged statements. In this article, I argue that when consumers are the target of alleged false advertising, recent advances in information and analytics about consumers’ actual buying behavior are readily available to empirically assess causation and long-term harm. In Lanham Act cases, empirical evidence on irreparable harm is increasingly important for obtaining a preliminary injunction. The information and analytics discussed in this article provide a potential way to offer rigorous empirical evidence about likely irreparable long-term effects from the alleged misrepresentations.

This article focuses on two key issues relating to economic injury in Lanham Act cases. The first is to describe how “big data” about consumers offers new ways to assess the alleged misrepresentation’s impact on actual buying behavior. When consumers have been the target of the alleged falsity, the injury to a competitor depends on downstream consumers’ response to the alleged misrepresentations. Big data offers new and interesting ways to scientifically test the causal relationship between consumers’ buying behavior and the alleged false or misleading advertising.

Second, this article addresses the potential for injury caused by the challenged advertising to endure and possibly amplify over time. The long-term consequences of advertising have been documented in many recently published studies<sup>1</sup> that help address an issue of great importance to Lanham Act cases: evidence of long-term irreparable harm. Recent court decisions suggest a greater role for empirical evidence of irreparable harm.<sup>2</sup> The analysis of consumers’ actual purchase behavior within a framework that explicitly accounts for the challenged advertising’s long-term impacts can add to this evidence.

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<sup>1</sup> For a review of recent empirical evidence on the long-term effects of advertising, see Dominique Hanssens, *What Is Known About the Long-Term Impact of Advertising* (MASB PRACTITIONER PAPER, No. 2011-01, Feb. 2011), available at <http://www.anderson.ucla.edu/faculty/dominique.hanssens/Website/content/Long-Term%20PUP%202011%20-Hanssens.pdf>.

<sup>2</sup> The rebuttable presumption of irreparable harm in Lanham Act cases can no longer be invoked to obtain a preliminary injunction of the offending advertisement. See *Winter v. Natural Resources Defense Council, Inc.*, 555 U.S. 7, 20 (2008); *Ferring Pharm. v. Watson Pharm.*, 765 F.3d 205 (3d Cir. 2014).

## Big Data Fundamentally Changes What Is Known About the Consumer

There has in recent years been a proliferation of highly granular data about consumer buying activity. For this article, big data is used to refer to the tremendous volume of consumer level information that companies are now specializing in tracking, developing, and analyzing in new ways to provide real-time actionable marketing intelligence. The uses and market for this information was the subject of a recent FTC report.<sup>3</sup> Hundreds of firms have emerged in this space, many achieving market capitalizations over \$1 billion.<sup>4</sup>

*Big data has gone from concept to practical use very rapidly. One of the interesting applications has been to answer important long-running questions raised by marketing and advertising scholars.*

Big data has gone from concept to practical use very rapidly.<sup>5</sup> One of the interesting applications has been to answer important long-running questions raised by marketing and advertising scholars.<sup>6</sup> As explained below, there appears to have been a symbiotic relationship between the advances in scholarly research on consumer behavior and the rapid introduction of big data in the marketplace. These parallel and reinforcing trends are interesting and help understand how this progress can be useful in Lanham Act injury analysis.

In 1997, at an Institute of Electrical and Electronics Engineers conference a paper was presented describing an information phenomenon where “data sets are generally quite large, taxing the capacities of main memory, local disk, and even remote disk. We call this the problem of *big data*.”<sup>7</sup> A few years later, several marketing and advertising scholars made a very telling prediction about capabilities on the near horizon for analyzing consumer behavior.<sup>8</sup> Their predictions included: (1) larger, more granular datasets with a greater range of variables to understand consumer responses to marketing; (2) automation of data collection so that information could be gathered rapidly and made available much more quickly; (3) the emergence of Internet data sources that when accumulated over time would give new insights into consumers’ short and long-term buying behavior; and (4) the application of these insights to better understand the relationships between marketing variables and financial performance.

All of these predictions have come true. Of particular interest is the idea that the relationships between advertising and consumer variables over the long term would be more amenable to study, including the “long-term, perhaps irreversible impact” of marketing variables on consumer demand.<sup>9</sup> It is doubtful the authors were thinking about irreparable harm issues in Lanham Act cases, but they were focused on a point of similar concern: the substantial differences between

<sup>3</sup> See FED. TRADE COMM’N, DATA BROKERS: A CALL FOR TRANSPARENCY AND ACCOUNTABILITY (May 2014) [hereinafter FTC REPORT], available at <https://www.ftc.gov/system/files/documents/reports/data-brokers-call-transparency-accountability-report-federal-trade-commission-may-2014/140527databrokerreport.pdf>.

<sup>4</sup> Of the nine firms listed in the FTC Report two are publicly traded, each with market values above \$1 billion. *Id.* at 8.

<sup>5</sup> For an overview, see JAMES MANYIKA ET AL., MCKINSEY GLOBAL INSTITUTE REPORT, BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY (May 2011), available at [http://www.mckinsey.com/insights/business\\_technology/big\\_data\\_the\\_next\\_frontier\\_for\\_innovation](http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation). For examples of big data applications in commercial, scientific, and government settings, see Randal Bryant, Randy Katz & Edward Lazowska, *Big-Data Computing: Creating Revolutionary Breakthroughs in Commerce, Science, and Society*, COMPUTING COMMUNITY CONSORTIUM (Dec. 22, 2008), available at [http://www.cra.org/ccc/files/docs/init/Big\\_Data.pdf](http://www.cra.org/ccc/files/docs/init/Big_Data.pdf).

<sup>6</sup> See Paul Feinberg, *What’s the Big Deal with Big Data*, ASSETS DIGITAL, available at <http://www.anderson.ucla.edu/assets-digital/master-the-8-stages-of-entrepreneurship/whats-the-big-deal-with-big-data>.

<sup>7</sup> See Michael Cox & David Ellsworth, *Application-Controlled Demand Paging for Out-of-Core Visualization*, PROCEEDINGS OF THE IEEE 8TH CONFERENCE ON VISUALIZATION (Oct. 18–24, 1997), available at [https://www.evl.uic.edu/cavern/rg/20040525\\_renambot/Viz/parallel\\_volviz/paging\\_outofcore\\_viz97.pdf](https://www.evl.uic.edu/cavern/rg/20040525_renambot/Viz/parallel_volviz/paging_outofcore_viz97.pdf).

<sup>8</sup> See Marnik Dekimpe & Dominique Hanssens, *Time-series Models in Marketing: Past, Present and Future*, 17 INT’L J. RES. IN MKTG. 183, 183–93 (2000).

<sup>9</sup> *Id.* at 189.

short-run and long-run impacts of advertising and the hypothesis that companies needed to focus more attention on the latter because of their potential value.

There are many examples of how the above scholarly predictions have been borne out, but one occasion is noteworthy. In 2008, a leading vendor of retail point-of-sale consumer purchase data released vast amounts of consumer goods product data to the public to analyze consumer buying patterns, in particular an understanding of how marketing and advertising variables affect consumer choices at the retail level.<sup>10</sup> Part of the impetus for this release was the recognition of the need for more empirical research into the issues discussed above. The vendor released a dataset containing five years of weekly purchase history for 30 consumer packaged goods categories across 47 geographic markets. Other vendors have followed with similar offerings.<sup>11</sup> In addition, there is now an entirely new public dataset on retail prices that could be useful for analyzing price erosion and lost profit claims.<sup>12</sup>

In sum, what is perhaps most interesting about these trends is not only the speed with which they occurred, but how quickly the technologies underlying big data became commercialized to the benefit of consumers and the study of consumer behavior. Also of importance is that insights from big data do not require companies or experts in Lanham Act cases to wade through terabytes of elemental raw data. Indeed, not only are companies striving to compete in the use of big data, there are efforts to make this information available and useful in real-time to buyers with varying levels of IT sophistication. This suggests consumer-centric data can be obtained early on in Lanham Act cases to perform rigorous empirical analyses that may have previously taken months or years to complete. Google Analytics website traffic data is one example of how massive amounts of digital data can be quickly turned into analytically useful information to track consumer exposure to an advertising campaign.

### **An Example of Applying Big Data to Causation and Impact in a Lanham Act False Advertising Case**

One of the main challenges in Lanham Act cases is understanding how consumers perceive and react to misrepresentations or subtle variations in trademarks that are contested by plaintiffs and defendants.<sup>13</sup> Consumer surveys are widely regarded by experts and the courts as providing objective insight into these areas. However, there may be a substantial discrepancy between survey respondents' answers and their actual purchase behavior. Surveys undertaken for litigation purposes also may only weakly measure past effects of alleged false advertising, which could be better measured with historical purchase data, if available.

Accurately measuring how, where, and when consumers were exposed to the alleged misrepresentations is perhaps the most basic and important starting point for empirically analyzing

*[W]hat is perhaps most interesting about these trends is not only the speed with which they occurred, but how quickly the technologies underlying big data became commercialized to the benefit of consumers and the study of consumer behavior.*

<sup>10</sup> See Bart Bronnenberg, Michael Kruger & Carl Mela, *The IRI Marketing Data Set*, 27 *MKTG. SCI.* 745, 745–48 (2008).

<sup>11</sup> See *The Marketer's Guide to Big Data Partners*, *ADVERT. AGE* (2013), available at <http://www.bigdatapartnerguide.com>.

<sup>12</sup> The "Billion Prices Project" at MIT records daily prices for 5 million items sold by 300 online retailers in 70 countries, available at <http://bpp.mit.edu/>.

<sup>13</sup> In Lanham Act cases, competitors, not consumer, have standing to file. Throughout this article, the assumption about the alleged falsity is that it targeted final consumers; hence, harm to a competitor located upstream in the distribution chain is derived from the downstream responses of consumers who purchase the final product. There are instances of "B2B" campaigns that do not target consumers, and these are not addressed in this article. See Randall K. Miller, *Lanham Act Liability for Promotional Statements to Distributors and Other Business Customers*, *ANTITRUST SOURCE*, Oct. 2011, [http://www.americanbar.org/content/dam/aba/publishing/antitrust\\_source/oct11\\_miller\\_10\\_24f.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/publishing/antitrust_source/oct11_miller_10_24f.authcheckdam.pdf).

*Much of the alleged impact asserted in false or misleading advertising cases is rooted in incorrect assumptions about how much consumers were actually exposed to the contested messages.*

impacts. Much of the alleged impact asserted in false or misleading advertising cases is rooted in incorrect assumptions about how much consumers were actually exposed to the contested messages. It cannot simply be assumed because an alleged false advertising campaign was costly, targeted a wide audience, or expected to be profitable, that it achieved its objectives. Business competition has been analogized to an evolutionary process with an element of trial-and-error.<sup>14</sup> This extends to advertising, which may or may not be effective, depending on a variety of factors.<sup>15</sup>

A common method to empirically measure consumers' exposure and response to an advertising campaign is to postulate a relationship between the dollar expenditures on the advertising and the number of consumers made aware of and acting on the advertised content. The relationship could be estimated from data on these variables or based on prior studies. This approach can be useful depending on the circumstances, but it also has potential weaknesses. One shortcoming is that advertising expenditure data is often tracked in an aggregate form, for example, the total amount of money spent on the campaign at a national level which may be broken out at some interval, such as quarterly or annually. However, consumer receptivity to the advertising can vary by media channel and within channel by specific ads, and further by geography or time period.<sup>16</sup> Expenditure data also may not track closely in time with the actual presentation of the advertised content to consumers.

Another major challenge is identifying the causal relationship, if any, between the alleged misrepresentation and consumer buying behavior. Even if awareness targets were attained and can be accurately tracked, the alleged misrepresentation cannot be assumed to have induced the desired response or achieved the anticipated magnitude of impact. It can even have undesirable consequences, such as indirectly benefiting a competitor, a problem referred to as a free-rider effect.<sup>17</sup> Advertising campaigns can have limited effects on consumer purchases, and it is an empirical question as to what those effects actually are, when the effects occurred, and where they occurred (if at all).

The subject of causation is too broad to be discussed here in depth, but the scientific framework on which many experts rely as the "gold standard" is the "control-treatment" approach.<sup>18</sup> The control-treatment approach entails identifying which groups of consumers were exposed to the alleged misrepresentation and which groups were not, so that their purchases can be compared across differential "treatment" or advertising exposure levels. Consumers can be exposed to advertising through a variety of media, including television, print, the Internet, and many other channels. There are various ways to measure exposure through these channels, all of which cannot be discussed in this article. However, in the age of Internet advertising<sup>19</sup>—which represents a large and growing fraction of advertising and purchases—one source of information to track consumers' exposure to advertising comes from Google Analytics.

<sup>14</sup> See Armen A. Alchian, *Uncertainty, Evolution and Economic Theory*, 58 J. POL. ECON. 211, 211–21 (1950).

<sup>15</sup> See Gerard Tellis et al., *Modeling the Microeffects of Television Advertising: Which Ad Works, When, Where, for How Long and Why*, 24 MKTG. SCI. 359, 359–66 (2005).

<sup>16</sup> *Id.*

<sup>17</sup> See Howard P. Marvel, *Exclusive Dealing*, 25 J.L. & ECON. 1 (1982).

<sup>18</sup> See REFERENCE MANUAL ON SCIENTIFIC EVIDENCE (2d ed. 2000).

<sup>19</sup> Internet advertising revenues in the United States were \$42.8 billion for 2013. See IAB INTERNET ADVERTISING REVENUE REPORT (Apr. 2014), available at [http://www.iab.net/media/file/IAB\\_Internet\\_Advertising\\_Revenue\\_Report\\_FY\\_2013.pdf](http://www.iab.net/media/file/IAB_Internet_Advertising_Revenue_Report_FY_2013.pdf).

**Using Google Analytics to Track Consumers' Exposure to an Advertising Campaign.** Google Analytics (GA) is a website performance tool that has been available for many years.<sup>20</sup> Its main purpose is to track website visit activity and make this information available to the website manager for a variety of purposes, including website optimization, marketing and advertising, and selling. GA tracks, stores, and reports website visit information in visual report form or in data that can be downloaded by the user. GA tracks a number of variables, including total website visits, the number of visits to specific pages, the duration of visit sessions, traffic source, e.g., organic search or referral, and customized metrics defined by the user.

Although GA measures website traffic, its authors have structured its tracking capabilities to obtain information about consumers' exposure to advertising messages over various media. For example, a television commercial may contain a link to a unique URL that enables a user to trace the source of website visits back to the televised advertising.<sup>21</sup> Published studies also demonstrate high correlations between various online and offline media.<sup>22</sup> Of course, Internet advertising and online sales have become a substantial component of the total media and retailing mix, and GA—along with other products by Google and others—has been designed to take advantage of synergies between offline and online advertising.<sup>23</sup> For example, when the television commercial for Victoria's Secret apparel aired during the 1999 Super Bowl, it generated 1.5 million visits to the company website in under 30 minutes.<sup>24</sup>

Another advantageous feature of website activity as tracked by GA is that the information is broken out by geography and short time intervals, down to the hour, each day. This kind of granular consumer awareness detail—exposure to a campaign tracked temporally and geographically—is a sound starting point for estimating causal impacts in a control-treatment framework. The exposure level in one geography could be quite low, whereas in others it could be much higher. Even when advertising is national, the actual reach to consumers can vary greatly because the targeted consumer segments vary across the country and the challenged advertising may change over time. By comparing purchase responses across multiple segments, and controlling for differences in geo-demographic characteristics (again, information available from big data), the materiality and causal effects of the alleged false advertising can be analyzed in a control-treatment framework.

The following example provides an illustration. Suppose a weight-loss product is targeted to adult females and marketed with misrepresentations overstating its effects. Assume the product was advertised on television, which also displayed a link to a website repeating the same alleged misrepresentation (and possibly pages that did not contain any false statements, such as health tips). GA data could be used to track website visits and pages at discrete time intervals coinciding with the TV commercial airings. This exposure data could be refined by the incidence of overweight female adults in the population. If unusually high sales occurred in geographic areas of greater website activity (controlling for obesity rates and other factors affecting demand unrelat-

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<sup>20</sup> See SEBASTIAN TONKIN, CALEB WHITMORE & JUSTIN CUTRONI, *PERFORMANCE MARKETING WITH GOOGLE ANALYTICS* (2010).

<sup>21</sup> *Id.* at 365.

<sup>22</sup> See, e.g., Mingyu Joo et al., *Television Advertising and Online Search*, 60 *MGMT. SCI.* 56–73 (2014); see also Jura Liaukonyte, Thales Teixeira & Kenneth C. Wilbur, *Television Advertising and Online Shopping*, *MKTG. SCI.*, Feb. 19, 2015, available at <http://pubsonline.informs.org/doi/ref/10.1287/mksc.2014.0899>.

<sup>23</sup> See TONKIN ET AL., *supra* note 20, ch. 14.

<sup>24</sup> See EMMET COX, *RETAIL ANALYTICS: THE SECRET WEAPON* 30 (2012).

ed to the challenged misrepresentations), then this would suggest the misrepresentations had a measurable impact on consumer behavior.

What this simple example of big data illustrates is that an impact analysis can be based on hundreds of mini-experiments conducted over time and cross-sectionally. The analysis must, of course, include consumer purchase information at a corresponding level of granularity, and the availability of this type of purchase information is becoming widely available as noted above.

*One of the factors considered by courts in weighing whether to issue a preliminary injunction is whether absent such relief the plaintiff would likely suffer “irreparable harm” . . . . This is a subject where the advancements in marketing and advertising science mentioned earlier can contribute to the task of measuring long-term effects that could give rise to irreparable harm.*

### **The Long-Term Effects of False Advertising and an Empirically Based Approach to Test for Irreparable Impact**

There are two points in Lanham Act proceedings where an economic analysis of consumer response to allegedly misleading advertising becomes relevant: first, if a plaintiff prevails on the merits, then damages can be awarded based upon a sufficient showing of the extent of any economic harm; and second, earlier in the case, when plaintiffs typically move for a preliminary injunction to stop the allegedly misleading advertising during the pendency of any trial on the merits. One of the factors considered by courts in weighing whether to issue a preliminary injunction is whether absent such relief the plaintiff would likely suffer “irreparable harm,” i.e., harm for which they cannot be adequately compensated monetarily should they prevail on liability.

As demonstrated in the previous section, big data can help empirically isolate the relationship, if any, between the alleged misrepresentation and consumer activity. Assuming that a causal relationship could be empirically identified, a logical next step is to determine how lasting these effects might be, which in turn can help determine the extent of any injury and whether such injury may be irreparable. This is a subject where the advancements in marketing and advertising science mentioned earlier can contribute to the task of measuring long-term effects that could give rise to irreparable harm.

***The Long-Run Effects of Advertising and the Consumer Buying Process.*** Recent empirical studies by advertising and marketing scholars indicate that when an advertisement is productive, it can increase consumer purchases over the long run by two to three times more than in the short run.<sup>25</sup> These authors have found that long-run effects sometimes extend over a period of several years. Hence, advertising can have an enduring and amplified effect over the long term, which matters when considering potential irreparable harm in a false advertising case. As described below, even if the challenged conduct is removed from the marketplace, its negative impact, if any, can continue to cause harm through legacy effects.

One reason pointed out by these authors for the greater long-run effects of advertising is the repeat purchase cycle: advertising-induced purchases reinforced by positive product experiences leads to future purchases.<sup>26</sup> As more consumers continue to purchase the advertised good, the effect of advertising can accumulate into much larger effects over time. As the base of customers grows and repeat buying continues, the value of a brand also rises. Over the long run, advertising can thus influence the value of brands and trademarks and in turn the goodwill or reputations of companies.<sup>27</sup>

<sup>25</sup> See *supra* note 1. For a more technical discussion of how advertising and marketing affects short-term and long-term sales, see D.M. HANSENS, L.J. PARSONS & R.L. SCHULTZ, *MARKET RESPONSE MODELS: ECONOMETRIC AND TIME SERIES ANALYSIS* (2d ed. 2001).

<sup>26</sup> See Hanssens, *supra* note 1, at 2.

<sup>27</sup> See Kyle Bagwell, *The Economic Analysis of Advertising*, in 3 *HANDBOOK OF INDUSTRIAL ORGANIZATION* 1701 (Mark Armstrong & Rob Porter, eds. 2007).

Goodwill and reputation have an intuitive economic meaning as well as a more formal financial accounting definition both of which address similar questions: What over the long term is a company's ability to generate sales that put its market value above its book value? Put another way, what intangible asset does a company possess that will produce a stable profit stream into the future, such as a base of loyal customers with whom repeat purchases can be expected? These types of intangible assets are extremely valuable to businesses, and any potential impairment would pose a serious risk that is not easily redressable.

An alternative, complementary view of reputation and goodwill has been developed by economists studying the efficiency of markets: consumers reward companies that provide valuable products and services that satisfy them, or they can choose to avoid companies that under-deliver relative to their preference-price tradeoffs.<sup>28</sup> The repeat business incentive is one of the most potent tools wielded by consumers in a free-market economy. Reputational sanctions—whereby consumers can reward or punish firms based on their performance—allow consumers to guide the competitive process rather than resort to other costly means of recourse, such as litigation, regulation, or exit.<sup>29</sup> A legal system that supports reputational assets through trademarks, brands, and truthful advertising favors long-term economic growth by supporting companies that compete for repeat business over long horizons.<sup>30</sup>

These strands of literature raise several inter-related points about measuring economic impacts in consumer false advertising cases. First, the reputational process that disciplines companies and supports efficient market exchange is a long-term phenomenon. Second, advertising that has an impact in the short run can have substantially greater effects in the long run. The long-term effects require an analysis of how consumers adjust their purchases over time. This cannot be estimated with a single consumer survey or in an experimental setting because the adjustment evolves over time and depends on the unfolding of consumers' search paths and revealed choices—which may be unknown to them in the present—as well as reputation-building by firms with good track records that are acquired over long horizons.

Third, the analyses of sales, price, or profit impacts that support the estimation of damages, disgorgement, or corrective advertising should carefully consider the horizon over which the offending conduct impacts consumer purchases. Just as consumers can reward companies with repeat purchases, consumers can choose to punish firms for extended periods if those consumers detect that the goods they purchase fail to meet the expectations promised by the supplier. Although competitors may detect alleged misstatements in Lanham Act cases, the empirical analysis of consumer buying behavior can help structure remedies to make them consistent with the way consumers discipline firms within the competitive market process.

***The Brand Loyal Model of Advertising's Short and Long-Term Effects on Purchasing.*** The advertising studies cited above rely on econometric models, or regressions, to estimate short- and long-run effects based on actual consumer purchase data for individual products. The specific types of models vary. One type of model frequently used in these studies is known as the “brand loyal”

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<sup>28</sup> The principle of reputation and repeat-purchase incentives have both been described by economists in numerous studies. For an overview and references to economic models, *see id.*

<sup>29</sup> The reputational sanctions that discipline market competition have been discussed in many contexts, including antitrust. *See* Douglas H. Ginsburg & Joshua D. Wright, *Antitrust Sanctions*, 6 COMPETITION POL'Y INT'L 3 (Autumn 2010).

<sup>30</sup> For an introduction to the economics of brands and their relationship to economic growth, see Benjamin Klein, *Brand Names*, in THE CONCISE ENCYCLOPEDIA OF ECONOMICS 42–44 (2d ed. 2007), available at <http://www.econlib.org/library/Enc/BrandNames.html>.

model.<sup>31</sup> Because it is a regression, it can estimate the effects of advertising on consumer buying behavior controlling for other variables that affect consumer demand, such as prices, income, and promotions. The model outlined below also fits into the treatment-control methodology discussed in the Google Analytics example above.<sup>32</sup>

To remove some of the “black box” aspects of the brand loyal econometric model, a non-technical overview of the way it distinguishes between short-run and long-run effects is presented below. The detailed discussion below gives the interested reader an appreciation for how an econometric model of this type can be used to estimate short- and long-run advertising effects and the way such a model could be applied in a false advertising case to develop empirical evidence of irreparable harm.

*The brand loyal model is an econometric model that helps answer the question: How will consumer purchases of a product respond to advertising in the short- and long-run or at any point in time in between?*

The brand loyal model is an econometric model that helps answer the question: How will consumer purchases of a product respond to advertising in the short- and long-run or at any point in time in between? The model is a linear regression. It is very similar to a consumer demand model and has a dependent variable, like weekly or monthly product purchases, and independent variables, like product prices and consumers' income.<sup>33</sup> The regression equation also includes as an explanatory variable—a “lagged dependent variable”—which measures consumers' purchases of a good in the prior period, such as the previous week or month. Also, the model has the usual statistical diagnostics that will not be addressed here, like coefficients, t-tests, confidence intervals, r-squared, and so forth. In the footnotes below there are references to more technical detail.

To understand how the brand loyal model differentiates short-run from long-run advertising effects, the concept of consumer purchase carryover must be introduced. Purchase carryover is an empirically verifiable assumption about how much of a consumer's current purchases are a function of his or her previous purchases of a particular product. It is often referred to in technical terms as “inertia,” persistence, or “state dependence,” and is analogous to a probability of repeat purchase of a given product.<sup>34</sup> It can also be thought of as capturing the influence of loyalty, learning, habit, or legacy. These terms have more precise meaning in the scientific marketing literature, but the discussion here will simply refer to them collectively under the concept of purchase carryover.

Purchase carryover can be explained as the following: if a consumer purchases a product on one shopping visit, an expectation can be formed about how much he or she will purchase the same product on the next visit. The carryover effect is analogous to the probability of repeat purchase, which might be very high—above 80 percent—if the consumer exhibits a high degree of inertia or persistence in his or her purchases.<sup>35</sup>

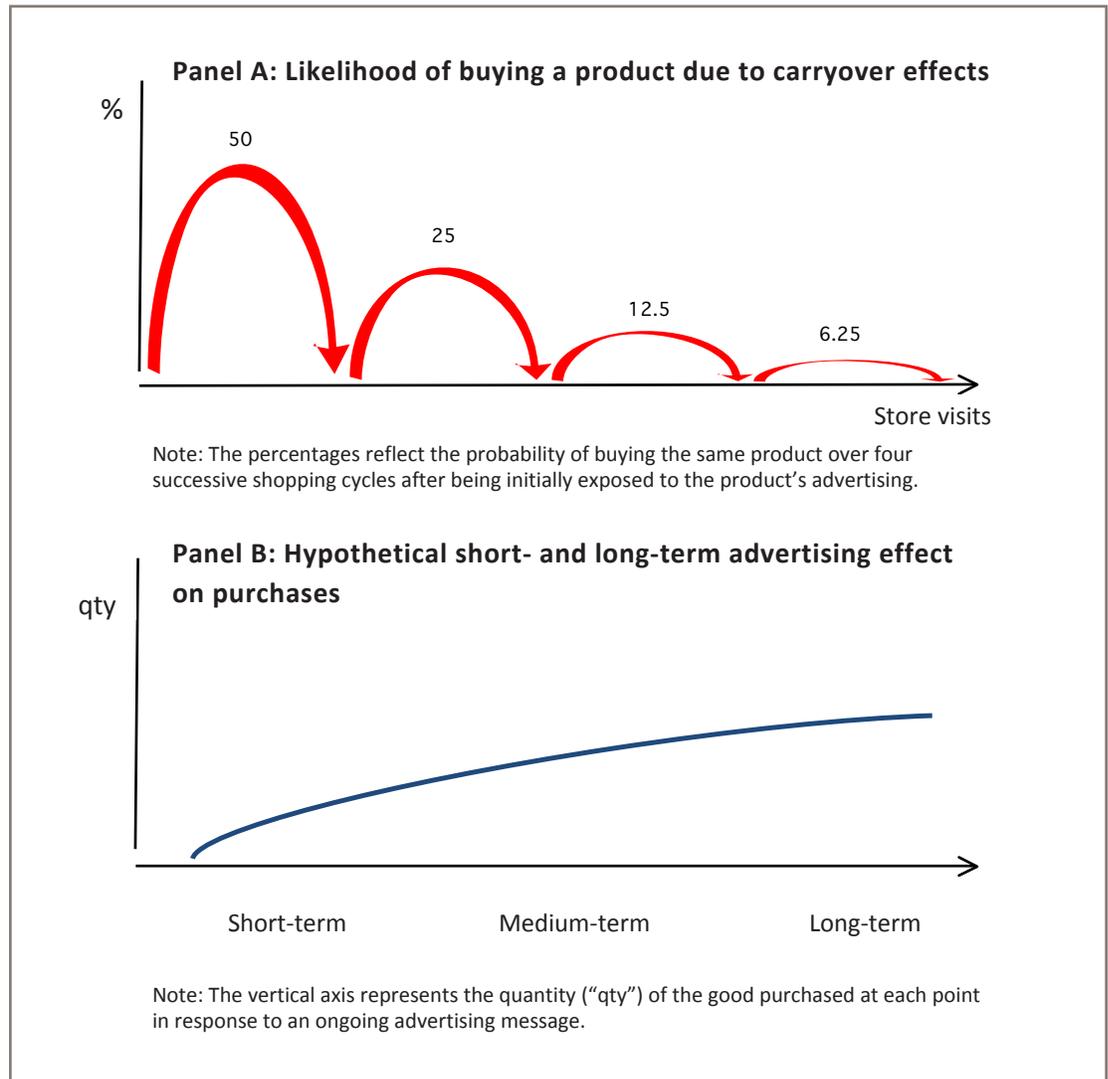
Suppose for discussion purposes the purchase carryover effect is 0.5 or 50 percent. Panel A in Diagram 1 shows how a 50 percent carryover effect operates over time. Initially, if a consumer buys the product once, he or she continues to purchase the product thereafter (ignoring for the

<sup>31</sup> See Charles Weinberg & Doyle Weiss, *On the Econometric Measurement of the Duration of Advertising Effect on Sales*, 19 J. MKTG. RES. 585 (1982); see also ERNST R. BERNDT, *THE PRACTICE OF ECONOMETRICS CLASSIC AND CONTEMPORARY* 388 (1991).

<sup>32</sup> The Google Analytics example and the control-treatment paradigm generally can be represented by data elements that are cross-sectional, e.g., geographies and temporal, i.e., time-series, which together comprise what econometricians refer to as “panel” data. For an introduction to the application of regression models to panel data, see JEFFREY M. WOOLDRIDGE, *ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA* (2d ed. 2010).

<sup>33</sup> The form of the econometric model can be adapted to match the availability of data, such as the length of history over which purchases are tracked, whether multiple products or groups of consumers are affected, and data on defendant's products which may have been advantaged by the alleged violation. The main requirements are the data be sufficient to estimate the carryover effect in consumer purchases and incorporate the available information on consumers' exposure to the challenged advertising.

**Diagram 1: Illustration of Purchase Carryover Effect and Long-Term Effect of Positive Advertising on Consumer Product Purchases**



moment what triggered the initial purchase). Even with only a 50 percent carryover effect, the initial purchase persists over many successive shopping periods, though the effect dissipates over time (down to 6.25 percent after four successive periods).<sup>36</sup>

Applying this to an advertising campaign designed to induce consumers to purchase a product, suppose the consumer responded favorably to the advertising on his or her shopping visit. This immediate response would constitute a one-time or "short-term" effect from the advertisement. In addition, since the consumer was induced to purchase the product on the current visit, the carryover effect implies he or she is likely to buy the product again on future visits. Note that

<sup>34</sup> For a technical discussion and empirical investigation of the reasons for consumer buying inertia, see Jean-Pierre Dube, Gunter J. Hitsch & Peter E. Rossi, *State Dependence and Alternative Explanations for Consumer Inertia*, 41 RAND J. ECON. 417 (2010).

<sup>35</sup> The carryover effect is estimated from historical purchase data. It is the coefficient on the lagged value of the dependent variable in the brand loyal regression model. The exposition here assumes this coefficient ranges from zero to less than one, though values outside this range are theoretically possible. For more technical explanation, see the discussion of dynamic multipliers in JAMES D. HAMILTON, *TIME SERIES ANALYSIS* (1994).

this response is the result of being exposed to the advertisement once. This may not be realistic, but it sets up the next point.

As the advertising continues to run over many periods, more consumers adjust their purchases to a greater degree over the long term. The carryover effect essentially becomes compounded over time and across consumers. The difference between the short-term and long-term effect is shown in Diagram 1 Panel B. The line tracing out the effect shows a gradual increase until reaching a plateau. The points on this line are determined by estimating the buyer loyal regression model coefficients from actual purchase data. To get a sense of how the short and long term can differ, a model that estimates a 50 percent carryover effect implies the long-term response to an ongoing advertising message is twice as large in the long-run as the short-run. A 75 percent carryover effect means the long-run effect will be four times greater than the short-run effect.

*The potential for enduring and amplified advertising effects into the future is one of the reasons false or misleading advertising is particularly complex.*

**Applying the Model to Test for Irreparable Harm Due to False Advertising.** The potential for enduring and amplified advertising effects into the future is one of the reasons false or misleading advertising is particularly complex. The effects can be perceived as highly uncertain, which has been interpreted by some to mean the harm is unquantifiable and hence irreparable. Even when the effects can be empirically estimated, removing the challenged conduct from the marketplace may not be curative as the harm can persist over time, as demonstrated above.<sup>37</sup>

Uncertainty is an issue in any empirical analysis, and this article does not intend to suggest such complexities can be easily overcome. However, advances in advertising science support a more rigorous empirical approach to irreparable harm than has previously been considered. This conforms with recent court decisions calling for more empirical evidence to obtain a preliminary injunction.<sup>38</sup> The data and tools are available. A framework for applying them to irreparable harm should consider the potential long-run negative impact on a plaintiff caused by the alleged misrepresentations and the plaintiff's prospects for sustaining and recovering financially from any injury.

Continuing with the brand loyal model above, suppose consumers were exposed to a false advertisement that prompted them to adjust their purchase decisions. Specifically, assume the alleged misrepresentation induced consumers to reduce their demand for the plaintiff's products. What the above model can do in such a situation is first estimate the carryover effect from historical purchase data and then apply the carryover rate to the short-run impact to derive the long-term reduction in plaintiff's product sales. The short-run consumer response prompted by the misrepresentation could be estimated by extending the model into the injury period, or estimated from outside sources.

A long-run impact substantially greater than the short-run impact expected to persist over time would constitute evidence of likely irreparable harm. It is important to emphasize that within this econometric framework, quantitatively detecting the presence of long-term impacts does not necessarily mean recovery can be monetized. Indeed, the opposite is true. For example, sustained long-term losses—even if estimable—can trigger an impairment of assets that from the damaged firm's point of view are too costly to overcome. As discussed above, these losses can continue even after the alleged misrepresentation is discontinued because of legacy effects.

<sup>36</sup> For simplicity, this exposition does not address other factors that would cause the consumer to continue buying the product, or change the amount at which the consumer buys, such as price and income. These could be included in the regression model as explanatory variables.

<sup>37</sup> Recovery in Lanham Act cases can include corrective advertising. Estimating the short- and long-run impacts of the alleged misrepresentations can help determine the appropriate amount and duration of corrective advertising.

<sup>38</sup> See *supra* note 2.

In addition, assuming the alleged misrepresentation is ongoing, the model can be used to determine how quickly the reduction in purchases will cross a certain threshold. That is, the model can estimate both the short-run and long-run effects, as well as the interim effects and the expected time required before reaching a certain level of harmful impact. This type of analysis can help plaintiffs press for quicker action on a preliminary injunction, if the evidence suggests permanent long-term effects that are prohibitively costly to undo.

In sum, evidence on the magnitude and duration of false advertising effects can be helpful for empirically determining whether plaintiff's sales losses will cross a threshold past which the firm or an important product line cannot recover. While it may be sufficient to show a substantial long-term reduction in sales relative to any short-term effects, evidence of a permanent or irreversible nature can be further developed using the plaintiff's financial information, such as product profit-loss detail and intangible asset values. For example, if the long-term negative impact is likely to materially erode the contribution margin of a product, it may not make sense for the firm to replenish intangible assets associated with the product. The firm may also be put at a disadvantage relative to competitors. This type of evidence takes into account not only the long-run loss of a consumer base but the financial cost, and irreparable nature, of the harm caused by the alleged violation.<sup>39</sup>

### Conclusion

This article has described some of the ways new information about consumers can be combined with applied econometrics to assess false advertising impacts in Lanham Act cases where the alleged misrepresentations target consumers. The data-rich environment in which companies compete enables them to know more precisely how final consumers respond to marketing and pricing initiatives over various time horizons. Companies are eager to know the short- and long-term effects of their marketing and advertising generally, and these pursuits have resulted in dramatic growth in information and analytic capabilities to better understand these dynamics.

The progress in information, marketing, and economic analysis supports the effort to improve Lanham Act injury evidence, particularly about measuring consumer exposure to an alleged misrepresentation, their buying responses to the alleged misrepresentations, and the potential for long-term irreparable harm. The empirical analyses described in this article can provide additional support to evaluate the potential for long-term impacts and irreparable harm. An injury framework that examines actual consumer behavior and consumers' long-run response to advertising helps to structure remedies and penalties, when appropriate, to mirror the marketplace discipline that consumers naturally wield to guide honest and fair competition among firms. ●

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<sup>39</sup> The approach discussed here is similar to the concept of "raising rivals' costs," an economic framework used to study unfair competition that causes permanent harm by severely weakening or forcing a rival to exit the market. See Steven C. Salop & David T. Scheffman, *Raising Rivals' Costs*, AM. ECON. REV. 267, 267-71 (1983).

# Paper Trail: Working Papers and Recent Scholarship

**Editors' Note:** Editor John Woodbury reviews two papers—one theoretical and the other applying the theory—by Jonathan Baker. The papers address the effects on the extent of innovation of antitrust efforts to reduce exclusionary practices by dominant firms. Send suggestions for papers to review to [page@law.ufl.edu](mailto:page@law.ufl.edu) and [jwoodbury@crai.com](mailto:jwoodbury@crai.com).

—WILLIAM H. PAGE AND JOHN R. WOODBURY

## Recent Papers

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**Jonathan Baker, Exclusionary Conduct of Dominant Firms, R&D Competition, and Innovation** (Mar. 15, 2015), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2523202](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2523202)

**Jonathan Baker, Evaluating Appropriability Defenses for the Exclusionary Conduct of Dominant Firms in Innovative Industries** (draft of Nov. 13, 2014), ANTITRUST L.J. (forthcoming), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2523203](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2523203)

These two papers by Jonathan Baker (Professor of Law, Washington College of Law, American University) address the effects on the extent of innovation of antitrust efforts to reduce exclusionary practices by dominant firms. The first paper considers these effects at a conceptual level (*Exclusionary Conduct of Dominant Firms, R&D competition, and Innovation*) (“Theory Paper”). The companion paper (*Evaluating Appropriability Defenses for the Exclusionary Conduct of Dominant Firms in Innovative Industries*) (“Applied Paper”) suggests how some of the results of the first paper might be applied in practice to evaluate claims by a dominant firm that the exclusionary practices preserve its innovation investment incentives by increasing its ability to appropriate the returns from innovation.

### **Exclusionary Conduct of Dominant Firms, R&D Competition, and Innovation**

In this first paper, Baker develops a model of R&D competition in a two-firm setting, a dominant firm and a rival.<sup>1</sup> Baker's motivation for the paper is straightforward: “In antitrust cases, some dominant firms, including Microsoft and Intel, have sought to justify their alleged exclusionary conduct, or fend off proposed remedies that would prohibit it, by claiming that the conduct enhances their incentive to innovate by increasing their return to R&D investment.” (Theory Paper p. 6) The purpose of the model is to identify the effects on overall innovation success if the dominant firm were required to reduce the level of its exclusionary impediments to competition by the rival. In other words, Baker is addressing at least one Holy Grail of innovation analysis: Will elimination of the dominant firm's exclusionary impediments to competition increase the overall likelihood of successful innovation? Or, more colloquially, is more competition in R&D better than less?

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<sup>1</sup> Given the technical nature of the paper, I have chosen to describe the model in broad-brush strokes, which may raise the ire of my economist colleagues at my lack of precision.

Although the model is highly stylized (and the paper itself is quite technical), the results turn on four key characterizations. The first is whether the firms regard R&D investment as a strategic substitute (i.e., if my rival's R&D investment increases, I find it profitable to accommodate that increase by reducing my R&D investment) or a strategic complement (i.e., if my rival's R&D investment increases, I find it profitable to increase my R&D investment).<sup>2</sup> In theory, the dominant firm, for example, could regard the rival's investment as a strategic complement while the rival could regard the dominant firm's investment as a strategic substitute (or vice-versa).

The second key issue is how these relationships change or shift when the enforcement agencies act to reduce the exclusionary impediments. The third is whether after those shifts, total R&D investment rises as a result of increased competition.

A fourth complexity is the need to distinguish between what Baker refers to as pre- and post-innovation competition scenarios. In the pre-innovation scenario, exclusion can take the form, for example, of foreclosing a rival's access to key inputs or distribution outlets, thus discouraging R&D investment by the rivals. Post-innovation competition can be impaired by loyalty discounts and the dominant firm designing its new product to be incompatible with the rival's innovation.

The focus of the rest of the paper is on the kinds of sufficient technical conditions that ensure the reduction in exclusionary impediments increased (or decreased) total R&D expenditures and so increased (or decreased) the probability that at least one of the firms will succeed in innovating. Drawing from Baker (Applied Paper pp. 6–7) and focusing on post-innovation competition, the “direct” effect of an impediment-reducing policy is to reduce the dominant firm's R&D investment incentives (because of reduced appropriability) and increase the rival's investment incentives. But if the rivals do invest more in R&D as a result and the dominant firm regards its rival's R&D investment as a strategic complement, there will be an offsetting dominant firm incentive to increase R&D spending in response to the rival's increased investment. As Baker notes (Theory Paper p. 16), “if the rival invests more and the dominant firm's R&D investment increases or does not decline much, the aggregate probability of R&D success may increase.”

When exclusionary impediments are reduced, the sufficient conditions for an increase in the overall probability of success in the pre-innovation market are a mirror image of those for post-innovation competition. With respect to the direct effects, Baker notes that the dominant firm has an incentive to increase (not reduce) R&D investment so as to “escape” competition while the reverse is true for the rival (which now finds the status quo more profitable). (Theory Paper p. 10.) If the dominant firm regards the rival's R&D investment as a strategic substitute, then the lowered investment of the rival will induce the dominant firm to increase investment. On the other hand, the rival's incentives to reduce R&D investment “will be dampened or countered if it views the dominant firm's R&D investment as a strategic complement . . . .If the dominant firm invests more and its rival's R&D investment increases or does not decline by much, the aggregate probability of R&D success may increase.” (Theory Paper pp. 15–16.)

Baker concludes that “[e]nforcement actions challenging pre-innovation exclusion and enforcement actions challenging post-innovation exclusion will tend to be effective in different strategic settings.” (Theory Paper p. 18.)

Notwithstanding the technical nature of the paper, Baker has developed a simple but rich model that may capture the determinants of the effects of removing exclusionary impediments to

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<sup>2</sup> More technically, one question is whether the best response/reaction function of the dominant firm's R&D investment decisions to the rival's investment decision is upward sloping (as the rival increases its R&D investment, the dominant firm responds by increasing its own investment) or downward sloping (as the rival increases its R&D investment, the dominant firm reduces its R&D investment). There is the analogous question for the rival. Throughout, the assumption is that greater R&D investment increases the likelihood of innovation success.

competition on innovation in a strategic setting. In that sense, the paper advances our knowledge of innovation competition and the possible effects of antitrust policy designed to encourage competition on innovation. But the paper also highlights the complexity in terms of identifying the likely effects in a real-world setting, effects that differ depending on the nature of strategic responses, how those responses shift when competition increases, and whether the policies are directed towards advancing pre-innovation or post-innovation competition. One could certainly argue given the complexity of the innovation effects even in this highly stylized model, that the antitrust agencies and the courts should be very cautious in attempting to reduce the extent of exclusionary practices to increase innovation without accounting for the strategic responses of the players to that effort (which also requires understanding whether the competition sought is pre- v. post-innovation). Baker's companion Applied Paper offers a start to exploring ways of identifying when eliminating exclusionary practices will increase aggregate innovation.

While I would recommend the Theory Paper to economist colleagues, it may be too technical for antitrust lawyers. All of the analysis is crammed into 18 pages, and, as a result, the paper is somewhat more dense than perhaps is necessary. Some elaboration would prove fruitful. For example, more of an analytic roadmap to the paper in the introduction would have been helpful. As another example, Baker spends little time on the definition or characteristics of pre-innovation/post-innovation competition, a distinction that is critical for understanding how competitive interactions affect innovation. And exclusion could be simultaneously happening in both "periods" or the effect on one competition type might spillover to the second (a complication Baker admits he ignores<sup>3</sup>). In addition, it would have been helpful if Baker had placed his paper against the backdrop of other papers examining competition in R&D and how this paper advances the literature. There is certainly some of that discussion buried in a footnote or two (see, for example, note 1 in the Theory Paper), but that discussion is quite sparse. More would have been helpful.<sup>4</sup>

Yet, in my discussion here, I have barely scratched the variety of possible outcomes within the four corners of the paper. Given the importance of understanding the effect of antitrust policy on innovation and Baker's focus on the role of strategic substitutes and complements in considering policy actions, the effort is worth the candle.

### **Evaluating Appropriability Defenses for the Exclusionary Conduct of Dominant Firms in Innovative Industries**

Baker uses the Applied Paper to suggest how some of the insights gained from the Theory Paper can be employed in practice. In this effort, Baker's focus is narrower than that in the Theory Paper. He does not attempt to identify factors that would lead antitrust agencies or the courts to conclude that reducing exclusionary conduct will increase total R&D investment. Baker instead considers

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<sup>3</sup> But Baker does address this issue in passing in the Applied Paper at note 20: "When exclusionary conduct would affect both pre-innovation and post-innovation competition, the dominant firm's innovation incentives would likely depend primarily on the consequences for post-innovation competition . . . as the present value of dominant firm profits in product markets after new products are introduced would be commonly expected to exceed its profits while R&D is underway but before the products are introduced."

<sup>4</sup> Interestingly, in the Applied Paper, Baker is more expansive in his literature references, but those are more focused on the applications rather than the theory. For example, in the Applied Paper, he notes (pp. 5–6) two observations suggesting that exclusionary conduct will not increase aggregate innovation incentives. "The first is the empirical economics literature that suggests that on average, the incentive to innovate to escape product market competition plays at least as large a role in fostering innovation as the incentive to obtain a greater reward for innovation success. The second is the observation that in many markets the dominant firm's payoff to innovation, and thus its incentives to invest in R&D, would likely remain high even if its exclusionary conduct is prohibited, because of structural features like rapid market growth, scale economies, network effects, sale of complementary products, and high customer switching costs." (Notes omitted, citing the relevant literature.)

claims by dominant firms that efforts to eliminate what the agencies or the courts might regard as exclusionary conduct will discourage the dominant firm's R&D investment by reducing the extent to which the dominant firm can reap (appropriate) most or all of the profits from a new innovative product. So, going forward, the dominant firm might argue, its offering of new innovative services will be reduced as competition increases.<sup>5</sup>

Baker provides some of the policy and legal context by focusing on seemingly contrasting court views of the incentive effects of a dominant firm's exclusionary practices. He notes (Applied Paper p. 4) that the appropriability defense was rejected by the Supreme Court in *Kodak*. In addressing Kodak's refusal to sell parts to independent service organizations (ISOs), Baker notes the Supreme Court's observation: "Kodak claims that its policies prevent ISO's from 'exploit[ing] the investment Kodak has made in product development, manufacturing, and equipment sales in order to take away Kodak's service revenues'. . . . This understanding of free-riding has no support in our case law."<sup>6</sup>

By contrast, the appropriability defense seems to have been accorded significant weight by the Supreme Court in its *Trinko* opinion. Baker quotes the Court as observing: "Firms may acquire monopoly power by establishing an infrastructure that renders them uniquely suited to serve their customers. Compelling such firms to share the source of their advantage is in some tension with the underlying purpose of antitrust law, since it may lessen the incentive for the monopolist, the rival, or both to invest in those economically beneficial facilities."<sup>7</sup>

To evaluate the credibility of the dominant firm's appropriability defense, Baker begins with a theme from the Theory Paper that there are two effects which can pull in opposite directions. First is the direct effect of eliminating the exclusionary conduct, which is to reduce the dominant firm's incentives to invest in R&D. This is the effect most often addressed by proponents of allowing dominant firms to preserve and enhance innovation incentives through exclusionary conduct.

But there is a second, indirect effect that these proponents do not consider: whether the dominant firm regards rivals' R&D investment as a strategic complement. If the rivals invest more as a result of eliminating exclusion, the dominant firm would have an incentive to increase its R&D investment.<sup>8</sup> If this indirect effect is stronger than the direct effect, then, Baker argues, the appropriability defense should be rejected. Consequently, when assessing an appropriability defense, both effects must be considered.

Baker further notes that even if the direct effect dominates the indirect effect, the net effect on the dominant firm's R&D incentives from eliminating exclusion could be small while increasing the rivals' R&D investment (so that total industry R&D investment may increase). Moreover, Baker observes (Applied Paper n.25) that if the reduction in the dominant firm's R&D incentives is minor (and thus causing some consumer harm), consumers may nonetheless benefit on balance from

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<sup>5</sup> Thus, in this paper, Baker is focusing on post-innovation competition. Baker notes (Applied Paper p. 8) that "[i]t is reasonable to focus solely on the post-innovation exclusion when evaluating the appropriability defense because the dominant firm would not proffer that defense unless it is concerned with the incentive consequences of post-innovation product market competition." See also the discussion in note 3 *supra*.

<sup>6</sup> Baker, Applied Paper p. 4 (quoting *Eastman Kodak Co. v. Image Technical Servs., Inc.*, 504 U.S. 451, 485 (1992), upholding circuit court reversal of the district court's award of summary judgment to Kodak on plaintiff's monopolization, attempted monopolization, and tying claims).

<sup>7</sup> Baker, Applied Paper pp. 4–5 (quoting *Verizon Commc'ns Inc. v. Law Office of Curtis V. Trinko*, 540 U.S. 398, 407–08 (2004) (dicta)).

<sup>8</sup> Baker (Applied Paper p. 12) is assuming that the magnitude of the direct effect of the elimination of exclusion on increasing the rivals' R&D investment incentives would dominate any secondary effects tending to reduce rivals' investment.

the increased product market competition that the elimination of exclusion would foster. Thus, the larger is the indirect effect (when the dominant firm views the rival's R&D investment as a strategic complement), the more likely it is that the reduction in exclusion will benefit consumers. "For this reason, a dominant firm's appropriability defense should be questioned, and often rejected, if exclusionary conduct lessens rival R&D investment and the dominant firm would be expected to increase its own R&D effort in response to increased R&D by its rivals." (Applied Paper p. 7.)

To evaluate the significance of the indirect effect for dominant firm R&D investment, Baker puts a bit more structure on the theoretical construct presented in the Theory Paper. Providing some intuition behind the notion of strategic complementarity in R&D investment, Baker notes (Applied Paper p. 10):

Intuitively, when a rival increases its R&D investment, the rival's likelihood of innovation success will increase. If the dominant firm's incremental gain from innovation success is greater when the rival succeeds than when the rival fails, the dominant firm will seek to improve its own prospects for innovation success by investing more in innovation too.

Based on an extended example in a more technical appendix, Baker identifies three factors that would affect the likelihood that the dominant firm regards the rival's R&D investment as a strategic complement. First, the dominant firm may anticipate a high market share even when both the dominant firm and the rivals experience innovation success. If so, the dominant firm will capture much of the profits from innovation even without exclusion of rivals. Second, the dominant firm expects to lose substantial sales to the rival if it fails to innovate and the rival succeeds. Baker notes that "each [of these two factors] increases the dominant firm's incremental benefit from new product introduction given that its rival also does so, relative to the firm's incremental benefits when its rivals do not upgrade." (Applied Paper p. 11.)

The third factor Baker identifies is the role of complements to the primary product. If the dominant firm produces complements for the upgraded product and such sales are very profitable to the dominant firm, "the dominant firm cares mainly about ensuring that *some* firm introduce a new product, so its incremental gain from upgrading its own product conditional on its rival introducing a new product will be small." (Applied Paper p. 11.) In that case, the dominant firm's incentives to invest are weakened: an increase in R&D investment by rivals could cause the dominant firm to reduce its R&D investment, i.e., the dominant firm regards the rival investment as a strategic substitute.

Baker assesses how these factors could have informed an evaluation of the appropriability defense in three sets of landmark antitrust matters: Microsoft's exclusion of operating system rivals by impeding the development and distribution of Netscape and Sun Microsystems Java, which could have facilitated OS competition; IBM's decisions to render its central processing units (CPUs) incompatible with the peripheral devices of other producers, which limited competition in peripherals; and Xerox's accumulation of patents which may have discouraged competition in the sale of plain paper copiers.

To briefly describe the IBM example, Baker focuses on a series of cases involving competition in computer peripherals during the 1960s and 1970s.<sup>9</sup> At the time, "IBM was the leading manufacturer of central processing units (CPUs) [and] IBM may have had a monopoly share in markets

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<sup>9</sup> *Transamerica Computer Co. v. IBM Corp.*, 698 F.2d 1377, 1383–84 (9th Cir. 1983); *Cal. Computer Prods., Inc. v. IBM Corp.*, 613 F.2d 727, 744 (9th Cir. 1979); *Telex Corp. v. IBM Corp.*, 510 F.2d 894 (10th Cir. 1975).

for plug-compatible peripherals [e.g., tapes, disks, printers, and terminals].” (Applied Paper p. 15.) When IBM introduced a new generation of CPUs, those were incompatible with non-IBM peripherals and some rivals challenged the incompatibility as an attempt to monopolize the next-generation peripherals sales. Baker notes that when resolving these cases, the courts “declined to condemn IBM’s product design decisions found to enhance product quality or reduce[d] manufacturing costs, in part in order to avoid chilling that firm’s incentives to innovate.” (Applied Paper p. 16)

Suppose instead that the courts had agreed that IBM’s designs were exclusionary and so required compatibility as a remedy and suppose that that remedy provided increased incentives for rivals to engage in R&D for a new generation of peripherals. If IBM were to respond by increasing its own R&D investment, then the appropriability defense would be undercut. “IBM would likely respond in this way if it would expect to benefit more by developing next generation peripherals in the event its rivals also introduced upgraded peripheral products than it would gain by upgrading if its rivals did not innovate.” (Applied Paper p. 16.)

First, Baker notes that IBM likely expected to maintain a high share of peripherals even in the face of innovations by rivals: “Factors like customer loyalty, brand reputation, and service would likely have protected IBM’s share.” (Applied Paper p. 17.) Second, Baker points to evidence that if IBM reduced its R&D investment in response to increased peripheral compatibility, it risked losing substantial peripheral sales to those innovating rivals. Consequently, if these conditions held, “IBM would likely have responded to greater innovative effort by its peripherals rivals—as might have been the product of antitrust enforcement against IBM’s conduct—by increasing its own innovative effort.” (Applied Paper p. 17.) If so, this outcome would undercut an appropriability defense.

However, that’s not the end of the story. IBM might reduce its investment in peripherals R&D if the profitability of CPU sales were substantial and would be greater as long as some firm invested in the peripherals.

[If so,] IBM would have benefitted from the introduction of new peripherals regardless of whether the new products came from IBM or its rivals . . . . If the profitability of [CPUs] was the dominant influence on IBM’s response to rival innovative effort, then IBM might have responded to antitrust enforcement by cutting back on its own effort, consistent with what an appropriability defense would maintain. (Applied Paper pp. 17–18.)

## A Conclusion

On the one hand, Baker’s marrying of the Theory Paper to the Applied Paper makes both papers that much more interesting. The Applied Paper provides a solid practical environment to consider some of the implications of the theory for the practice. On the other hand, like Charles Dickens’s Oliver, I find myself wanting more in the Applied Paper. To be sure, Baker is clear that he is only illustrating how the Theory Paper might be used to assess the appropriability claims of dominant firms that use exclusion to constrain competition from rivals: “The case studies are intended to illustrate the approach, not to opine definitively on whether an appropriability defense should have been accepted in those cases.” (Applied Paper p. 21.) Still, he seems to offer what appears to be a stronger conclusion that “[a]s a group, [the case studies] suggest that it would neither be unusual nor surprising for dominant firms to respond to new product development efforts of rivals with greater innovative effort of their own.” (Applied Paper p. 21.) But Baker speeds through the three case studies, leaving the reader wondering how strong his case is for

evaluating appropriability in those matters. Some of the support for his application is contained in notes that probably should be in the text. But generally, more supporting facts would have been helpful.

And the IBM example suggests lingering questions on how to apply Baker's three factors to assessing an appropriability defense. For example, if IBM's peripheral share is expected to remain high after rivals innovate, how high does it have to be? Similarly, how large do the losses to rivals have to be if IBM failed to innovate? Obviously, if IBM's peripheral share is expected to fall "significantly" or if the losses to rivals in the event IBM doesn't innovate are "small," then eliminating exclusionary barriers to increase rivals' R&D investment incentives could diminish the investment incentives of the dominant firm. It would be helpful to design an "appropriability arithmetic" that can place critical thresholds on the combination of these two factors that would allow a more concrete prediction. Finding evidence that IBM's share would not fall "much" in the event both IBM and its rivals innovate and/or that the loss to IBM in the event it does not innovate would be substantial certainly suggests that less weight should be attached to an appropriability defense. While this is exactly the point Baker makes, more elaboration would be better as it is otherwise not clear how much less weight should be attached to the defense.

Of course, even if one concludes that the exclusionary practices did provide the dominant firm with greater R&D investment incentives, one might still want to know whether rivals' R&D investment will offset this dominant firm's reduced R&D investment incentives—the focus of the Theory Paper.

All in all, the two papers provide useful and potentially important theoretical and practical insights into how competitive interaction in the presence of exclusionary conduct affects overall innovation (the Theory Paper) and the evaluation of the appropriability defense (the Applied Paper).

—JRW