RAMBUS v. MICRON & HYNIX: A NEW TECHNOLOGY DOOMED BY MARKET COLLUSION OR DEFICIENCIES?

A ROUNDTABLE

Views from Trial Counsel Bart Williams, Bill Price and Ken Nissly
Moderated by Cheryl Lee Johnson and Ken O'Rourke; Edited By Cheryl Lee Johnson★

I. Introduction

On the civil side, *Rambus v. Micron & Hynix*[1] was the largest antitrust trial to proceed to trial and a jury verdict in California state court in recent memory. Rambus brought this civil case after several companies pleaded guilty to price-fixing involving certain semiconductor chip products. Rambus sought compensatory damages of some $3.9 billion, which if trebled, would be almost $12 billion. The case, filed May 2004, did not start trial until June 2011, more than seven years later, before Judge James McBride in the San Francisco Superior Court. The trial itself lasted five months, including almost two months of jury deliberation. It ended with the jury concluding that Rambus had not established that there was a conspiracy between the defendants with respect to computer memory chips using Rambus technology. The case is now on appeal, so the parties are understandably constrained in their statements here.[2]

The case was a headliner, as it involved a Silicon Valley startup company, Rambus, with its apparent story-book success. Rambus alleged that a global conspiracy of foreign semiconductor companies including Hynix (the old Hyundai) and Samsung, together with Micron (a U.S. company) and the German company Infineon, kept Rambus from realizing its projected success in the launch of its RDRAM chip technology. The case involved literally a who's who of the tech world with witnesses from Microsoft, Dell, IBM, Hewlett Packard, Apple, Samsung, Compaq, and many other large companies. The case was tried by some of the state's most renowned litigators, and we are pleased that they consented to share some of their insights, advice and wisdom from that long trial.

Our illustrious panel of trial counsel consists of:

- **Bart Williams**, who represented Rambus at trial, is a partner at the Munger, Tolles law firm in Los Angeles and a Fellow of the American College of Trial Lawyers. Besides being named one of the top 100 attorneys in the State of California in 2010 by the *Daily Journal*, he was a star on the Yale Basketball Team.

★ Cheryl Lee Johnson is a Deputy Attorney General in the California Department of Justice's Antitrust Section. Kenneth R. O'Rourke is a partner at O'Melveny & Myers LLP in Los Angeles. The Moderators acknowledge the valuable assistance of Steven M. Perry, a partner at Munger Tolles & Olson and Kevin Teruya, a partner at Quinn Emanuel Urquhart & Sullivan, LLP.

1 *Rambus Inc. v. Micron Technology, Inc., et al.*, Case No. CGC 04-431105 (San Francisco Superior Court).

2 This article contains trial counsel's personal off-the-cuff and after-the-fact impressions and reactions, within the limitations of this format and the spirit of this exercise, in response to a number of fairly broad questions regarding a multi-month trial. Their comments, many of which were first made at the California State Bar Antitrust and Unfair Competition Law Section's Golden State Institute on October 24, 2012, do not represent the views of their clients and have been edited for inclusion in this article.

- **Ken Nissly**, who represented Hynix, is a partner in the O'Melveny & Myers LLP office in the Silicon Valley. He is a technology litigator, handles patent and other cases involving technology, and was recognized as one of *The Recorder's* Attorneys of Year for the State of California for 2011.

- **Bill Price** who represented Micron, is a partner at Quinn Emanuel in Los Angeles and a Fellow of the American College of Trial Lawyers, and was recognized as one of the State of California's Attorney of the Year for 2011 by *The Recorder*. He tries many cases and has a long list of accolades for his trial successes.

The Roundtable is moderated by **Cheryl Lee Johnson**, Deputy Attorney General for the California Department of Justice's Antitrust Division, and **Ken R. O'Rourke**, a partner at O'Melveny & Myers LLP in Los Angeles. It is an outgrowth of a Roundtable held at the California State Bar Antitrust and Unfair Competition Law Section's Golden State Institute on October 24, 2012, which Ken O'Rourke moderated.

At the end of the article, *Competition* has included the jury instructions as well as the jury verdict form so that readers may have a sense of exactly what the jury was finally told at decision time.

II. Background of the Litigation

This was one of a series of lawsuits by or against Rambus[3] involving the ascendency of computer memory technologies developed by a number of companies. According to Rambus, in the early 1980s the speed of computer microprocessors had progressed rapidly, while the technology for effectively feeding information to the microprocessor had seriously lagged, creating a technology bottleneck to faster computer speed. Several competing designs for what is generally referred to as dynamic random access memory ("DRAM") market emerged in this time frame, with the leading contenders being SDRAM (synchronous dynamic random access memory) and DDR (double data-rate synchronous dynamic random access memory). These technologies were developed and standardized by the Joint Electron Device Engineering Council ("JEDEC") industry standard setting organization. Another leading contender was Rambus' proprietary RDRAM (Rambus dynamic random access memory). The RDRAM technology received important early support and endorsement by Intel, which was widely perceived as the kingmaker in the memory world.

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3 Rambus was party to several lawsuits around the United States, including many patent and antitrust cases and several ITC proceedings. These litigations gave their name to numerous prominent "*Rambus* rulings," including ones on patents (*see, e.g., In re Rambus Inc.*, 694 F.3d 42 (Fed.Cir. 2012)), disclosure obligations before standard setting organizations (*see, e.g., Hynix Semiconductor Inc. v. Rambus Inc.*, 609 F.Supp.2d 988 (N.D. Cal. 2009) and *Rambus Inc. v. Fed. Trade Comm'n*, 522 F.3d 456 (D.C. Cir. 2008)), and document retention (*see, e.g., Micron Technology, Inc. v. Rambus*, 645 F.3d 1336 (Fed. Cir. 2011)); *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336 (Fed. Cir. 2011).

After the Department of Justice ("DOJ") began investigating collusion in the DRAM market, several DRAM manufacturers cooperated with the DOJ and/or pleaded guilty to fixing the prices at which various DRAM products were being sold. Micron was the amnesty applicant. Hynix (previously known as Hyundai) pleaded guilty to fixing the price of the products competing with RDRAM; however, that Hynix's plea did not extend to RDRAM products. Samsung later pleaded guilty to fixing the prices of RDRAM (for a limited time period), DDR and SDRAM.

In 2004, Rambus filed a complaint against Micron, Hynix, and Infineon alleging a conspiracy to suppress Rambus' RDRAM technology in violation of the California's Cartwright Act and Business & Professions Code Section 17200, as well as intentionally interfering with prospective economic advantage regarding Rambus' relationship with Intel, the largest manufacturer of processors and chipsets. Rambus later added Samsung as a defendant.

Rambus alleged that these four memory manufacturers conspired to (a) restrict the production and sale of RDRAM, (b) fix, raise, and maintain the price of RDRAM, and (c) lower the price of DDR (defendants' competing technology) in order to prevent RDRAM from becoming the worldwide standard for computer memory. Rambus also alleged that defendants wrongfully interfered with Rambus' prospective relationship with Intel by conspiring to limit the supply of RDRAM (thereby creating an artificial shortage of RDRAM), raising the price of RDRAM, and inventing or exaggerating problems with RDRAM to convince Intel to terminate its relationship with Rambus. Rambus argued, among other things, that defendants should be held liable because Hynix and others had previously pleaded guilty to fixing the prices of SDRAM and DDR, and Micron had admitted to the same conduct and cooperation with the government in its price-fixing investigation. Through their collusive conduct, Rambus asserted that defendants prevented RDRAM from becoming the type of memory used in most computers.

Rambus requested actual and treble damages, punitive and exemplary damages, injunctive relief preventing defendants from continued violations of the law, pre- and post-judgment interest, attorneys' fees and costs. Rambus sought approximately $4 billion in compensatory damages, trebled to roughly $12 billion under the Cartwright Act. Samsung and Infineon settled before trial.

After a five month trial, which included three months of evidence and argument and some two months of jury deliberations, the jury rejected Rambus' claims of a conspiracy.

III. Panel Discussion

***Moderators**: Before we dive into several of the pre-trial, trial and post-trial strategies in this case, it would be helpful to set the stage with the various themes that each side used in arguing their case to the jury. Understanding that it is a bit challenging to reduce a five-month trial to a few paragraphs from your opening and closing remarks, Bart, perhaps you can start for Rambus.*

Williams: Thanks. I will use a highly truncated "Clopening," a combination of our opening and closing remarks just to generally highlight our trial themes.

This trial was about a secret and unlawful conspiracy between the world's largest computer memory manufacturers to kill the revolutionary RDRAM technology that Rambus had invented. At the center of this illegal conspiracy were the defendants in the case, Hynix (which many knew as Hyundai) and Micron, along with two other companies who were supposed to be their competitors, Samsung from Korea and Infineon from Germany. These manufacturers used their combined market power to fix RDRAM prices and to choke off the supply for RDRAM. They also colluded to lower prices on the memory technology that they preferred. Through their collusion, they killed the Rambus technology that was destined—according to numerous impartial industry observers—to become the next breakthrough memory technology demanded by customers.

In 1996, Intel, which manufactured about 80% of the world's computer processers, announced that it would use Rambus' RDRAM as the standard memory system for all Intel processors, beginning in the 1999 time frame. Given Intel's market share, its support for RDRAM meant that RDRAM was the presumptive next generation memory technology standard, and DRAM manufacturers would need to obtain licenses from Rambus in order to build and sell RDRAMs for the 80% of computers that used Intel processors.

In response to this announcement, the man who later becomes Hynix's vice president of worldwide sales, Farhad Tabrizi, described what would happen if the manufacturers permitted RDRAM to become the next generation standard memory. In a September 26, 1996 email to other DRAM manufacturers, Tabrizi said:

> The Rambus II licensing is not just an issue of paying a royalty to Rambus. If Intel implements Rambus, all other applications will move that direction to leverage the strength and volume of the PC or personal computer market. Even if the architecture changes to something else, their signaling will remain for many generations. I urge you to please educate others and get their agreement to say "NO TO RAMBUS AND NO TO INTEL DOMINATION."
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> By the way, Mr. Tabrizi used those capital letters in his email; we didn't add them.

The evidence at trial showed that the defendants conspired to kill RDRAM so that the technology that they preferred, "Double Data Rate" or "DDR" memory, would take RDRAM's place. They preferred DDR over RDRAM for various economic reasons, such as the opportunity to make hundreds of billions of dollars in sales over the coming decade, over $20 billion a year, without paying license fees to Rambus. The defendants used their power over price and supply in the computer memory market to accomplish this goal, all the while telling Rambus that they were supporting RDRAM.

Defendants' own correspondence leaves no doubt about the existence of the conspiracy. In July 1999, three years after Hynix's Tabrizi had urged the industry to just "Say No" to Rambus, one of Tabrizi's direct reports, Mario Martinez, proposed that Hynix and Samsung conspire to restrict RDRAM supply:

> [W]ith Samsung building significant amounts of [RDRAM], we need to work with them to limit the supply in the market. Otherwise, we'll both be competing for market share . . . . and will result in an oversupply. We have

> to meet with Samsung to discuss ours and their production plan, TAM [Total Available Market] analysis and targeted market share worldwide and strategically count and reach consensus.

Competitors are supposed to compete against one another, and they cannot lawfully conspire with one another to restrict production or fix prices. Working with your competitor "to limit the supply in the market" is clearly illegal. And the same Hynix email quoted above also describes the need to have a "consensus" on RDRAM pricing between Hynix and Samsung. In response, a Hynix executive in Korea responded that Samsung had "the same idea" about RDRAM. A few days later, Martinez sent a follow-up email stating that his boss, Mr. Tabrizi, was going to "facilitate" a meeting between Hynix and Samsung to discuss this scheme. A few weeks after that, Hynix mysteriously obtained Samsung's *internal* RDRAM price projections for the next 15 months.

There's more. In the fall of 1999, top executives from Samsung and Infineon went to Micron's headquarters for a secret meeting. According to Infineon's internal documents, among the items discussed at the executive meeting was a plan to "not support" RDRAM so that the DRAM manufacturers could "control the market!!!!!!!!!!!!!!!"

That's right: there were 16 exclamation marks in that email. Of course, the conspirators knew that what they were doing was wrong. An Infineon executive who attended this meeting reported at the time that someone had wanted to take a photo of the Samsung, Infineon and Micron executives at dinner "and we all had to dive under the table, because if such a photo with all the major DRAM sales guys were to get in the wrong hands it would have been dangerous."

A similar meeting between Samsung and Micron took place in May 2000. According to a Micron executive who was present, Samsung assured Micron that it would charge "a price premium of 2X to 3X" for RDRAM, compared to the existing SDRAM. Both companies knew that a price premium like that would block RDRAM's market success. That was the goal.

An email written in June 2011 by Micron's Vice President of International Sales explained how the conspirators were *also* manipulating the prices of their preferred product, DDR, in an effort to block RDRAM. The Micron Vice President, Linda Turner, was responding to a Micron salesperson who was concerned that Hynix's DDR prices were markedly low—indeed, "scary." Ms. Turner responded by writing:

> No problem! We want DDR to explode into the marketplace so have actually been requesting Infineon, Samsung, and Hynix to lower their DDR pricing to help it become a standard (and drive Rambus away completely). Thanks.

The defendants will tell you that this is all too complicated to believe. But in a commodity market, prices are the critical factor in deciding which product (here, which technology) becomes dominant. As the defendants' emails showed, they knew that. *They* didn't think their scheme was too complicated. They repeatedly talked about how their inflated RDRAM prices would stunt RDRAM's market success, and how their (temporarily) low DDR prices would cause DDR to win this two-horse race for market dominance. As one Micron executive explained, DDR prices would be "VERY aggressive until we are totally entrenched," at which time the manufacturers could

change their approach and charge "what we want, once the hooks are set and the big fish are on the line."

Not surprisingly, the defendants' conduct matched their executives' emails. They kept RDRAM production low and RDRAM prices high, and they kept the competing DDR prices low. Then, once they believed that DDR had won the race and had ousted RDRAM, they hiked up the prices of DDR to reap the rewards for their illegal conduct.

The Department of Justice finally found out about the defendants' price fixing when that DDR price spike (400% over a few months) happened. Customers screamed; the DOJ served industry-wide subpoenas; and Micron agreed to enter the amnesty program. And Infineon, Hynix and Samsung pleaded guilty to price fixing. But the criminal pleas did not help Rambus, whose business had been destroyed by the defendants. That is what the jury was asked to consider.

***Moderators**: Ken, can you briefly explain Hynix's thematic approach in this case and how it planned to present the guilty plea?*

Nissly: While Rambus argued Hynix's guilty plea with the Department of Justice as a result of an investigation of price fixing in the memory chip industry was the same conspiracy that Rambus was alleging, this simply was not true. The Hynix corporate plea in the Department of Justice investigation specifically excluded from its scope any conduct with respect to Rambus.

There were three types of memory chip technology that were competing with one another in this time frame: SDRAM, DDR, and RDRAM. Hynix made all three kinds, and Hynix's guilty plea specifically excluded any conduct with respect to Rambus' version, RDRAM. Hynix took responsibility for its plea and acknowledged that what it had done in pricing other DRAM products was wrong; it did not ask the jury to excuse that conduct. But Rambus in this case alleged a conspiracy that was different than the conspiracy that the government had charged and that Hynix admitted to.

So what happened to Rambus' RDRAM product? Why did it not succeed more than it did? While Rambus claimed its product's disappointing results were caused by the conspiracy of others, the evidence showed Rambus' product failed of its own weaknesses and Rambus' own conduct. On this issue, Intel was a critical player since it manufactures about 80% of the chipsets that memory connects to in PCs.

Intel was the original supporter of the Rambus RDRAM technology. But that changed. Paul Fahey, the Intel executive in charge of bringing up the RDRAM program at Intel, testified about all the various technical reasons why RDRAM was not a successful product. Representatives of other companies that tried to use or manufacture the RDRAM product also testified to the problems they encountered with the Rambus technology. At the end of the day, these witnesses who hailed from many of the largest tech companies in the U.S., including Compaq, HP, Dell, IBM, Apple, and Microsoft, came to the Court to testify live or by deposition. They had no real stake in the case other than to share their Rambus experiences.

Rambus clearly knew that Intel had changed its mind about RDRAM. Intel worked with Rambus personnel and encountered several cost, support and performance

issues. Indeed, one of Rambus' internal presentations asked the poignant question of whether there was "life" for Rambus after Intel; in other words, after Intel withdrew its support for RDRAM. Rambus' answer was: there had better be because Intel had already started backing away from RDRAM.

The exhibits that Rambus highlighted with Hynix's one-time marketing vice president Mr. Farhad Tabrizi talked about competing with Rambus, and he colorfully articulated his personal views about RDRAM, but he did not decide Hynix's RDRAM business plan. During the trial, as here, Rambus highlighted emails between lower-level executives discussing an idea for a meeting that there is no evidence ever occurred.

Rambus argued that its RDRAM memory technology would have succeeded in the performance desktop market, and that once it succeeded in that market, that success would waterfall so that RDRAM would also move into mainstream, workstations, value PCs, and other markets using DRAM. But it was Intel that turned the tap off. Intel withdrew its support from Rambus and told the industry, Hynix included, that Intel would not adopt the Rambus product because it was technically deficient. That's why Rambus never succeeded.

***Moderators**: Bill, what was your approach on behalf of defendant Micron?*

Price: Thanks. We knew going into this trial that the jury was going to hear undisputed evidence that Micron and Hynix and others had had discussions among themselves that led to artificially high prices for SDRAM and DDR. We also knew what the jury was not going to hear that the Department of Justice, which investigated those communications, itself had said in a court filing that Rambus was not a victim of those communications, and that those communications were different from the conspiracy alleged by Rambus in this case. That was a key point that we had to explain to the jury.

So when I began my closing, I told the jury a story about "ghost riders." There was a phenomenon in New York where bus drivers were told that if they were in a minor accident they were to lock the doors of the bus, not so that people couldn't get off, but so that people couldn't get on the bus and claim they were injured. And that is what Rambus is in this case—a "ghost rider." There was a conspiracy, and there were victims. But those victims were actually the computer manufacturers who had to buy SDRAM and DDR at inflated prices. Rambus was not harmed by that conspiracy. In fact, Rambus was helped by it, because the admitted-to discussions were to keep the price of SDRAM and DDR artificially higher than they would have been. That made RDRAM—the competing product using Rambus' technology—more attractive by comparison. In that sense, the admitted-to discussions were contrary to the conspiracy alleged in this case.

Rambus' focus on the conspiracy investigated by the DOJ, which it was ghost-riding on, required us to respond and explain the significant differences between that conspiracy and the conspiracy alleged in this case. However, defending a case isn't only about explaining the problems with the other side's theory. You also have to explain to the jury what really happened, which is what we did in our defense case. We told the jury the real story behind RDRAM's failure. We emphasized that Intel, which was the kingmaker or kingbreaker, decided not to use RDRAM because of the failure of the

product and Rambus' own management, not for reasons that had anything to do with the defendants' conduct. Rambus had depended on Intel's support for the success of its product.

Ken Nissly already provided a view of what Intel's reasons were. There were documents as far back as 1998, for example, where Mr. Mooring, Rambus' president, talked to some of Intel's chief executives and reported back that Intel had already decided that RDRAM would have no shot at being the next generation memory to be used in 2002 and beyond.

Intel reached this conclusion because it realized that Rambus was using Intel "as a club" to coerce the DRAM manufacturers into expensive and unfavorable licensing agreements. As a result, Rambus was generating a lot of ill will in the industry toward Intel. Intel also realized that RDRAM had major technical and developmental problems that Rambus' engineers simply did not have the experience or expertise to solve; instead, Rambus was happy to let Intel do all of the hard work and get a free ride.

Intel also believed, rightly, that Rambus had misrepresented the cost of RDRAM. When convincing Intel to support RDRAM, Rambus had promised that the cost increase of moving from SDRAM to RDRAM would be about 5%. However, by RDRAM's delayed introduction in late 1999, the cost increase was much higher, so Rambus was losing credibility.

Finally there was the issue of Rambus having a secret plan to claim that it owned the technology for SDRAM and DDR, as well as RDRAM, if Intel ever moved away from supporting RDRAM. Rambus had long been laying the groundwork to sue the DRAM manufacturers, as well as the other users (such as Intel, AMD, and Via) of any memory other than RDRAM. We presented evidence, including presentations made by Rambus' management and board of directors that they had decided that they would not file those suits until either Rambus had lost Intel's support or RDRAM had become the mainstream memory. Then they could then sue with impunity. In January 2000, before the conspiracy alleged in this case could have been implemented, Rambus started suing DRAM manufacturers on the other technology, SDRAM. This was called Rambus' "Plan B."

Rambus did not call a single Intel witness to come to trial and give live testimony, because Rambus knew that this was the real story of RDRAM's failure. However, we did and had multiple Intel witnesses, including executives, testify how devastating to Intel all of Rambus' actions were. For example, one member of Intel management, Mr. Paul Fahey, described how Intel employees had ruined their lives—failed marriages and health problems requiring leaves of absences—trying to solve the problems with RDRAM. Meantime, they believed that the Rambus employees shirked their responsibilities in comparison. When these Intel employees learned that the Rambus folks didn't need to work as hard because they had this "Plan B," it was devastating to the relationship between Intel and Rambus. Mr. Fahey explained how damaging it was for those Intel employees who had dedicated their lives to this work to realize that they were trying to get something to work that was, for Rambus, simply one of several routes to extract money from the industry. This testimony was fairly emotional, and we argued that that it was these sorts of actions and failures by Rambus that caused RDRAM's failure.

***Moderators**: Did Micron attempt to distinguish its position from that of Hynix or did it share Hynix's strategy and approach at trial in challenging RDRAM?*

Price: During the trial, we also emphasized that the alleged conspiracy did not make sense because of the differing economic interests of the DRAM manufacturers that prevented them from reaching agreement on and carrying out the complicated multi-part conspiracy theorized by Rambus. As an example, Micron's strength was in competing on cost, and it was the leader in cost reduction on SDRAM and DDR manufacturing. Shifting to RDRAM would have increased Micron's costs by some 40%, but would have increased Samsung's costs as well by some 15%, depending on the date and version of the product. That would have negated Micron's key competitive advantage.

That was the reason that Micron preferred DDR over RDRAM. Micron thought DDR could do as well as or better than RDRAM depending on the application, and Micron also had its own individual incentive to keep its key competitive advantage over its foreign rivals. This is why there are multiple documents from Micron saying it did not want RDRAM to be the memory standard in the marketplace.

Micron's foreign rivals did not share Micron's incentives or follow its strategies. For example, there was a time in late 2000 and early 2001, where Micron instituted a price parity program for DDR. Micron was going to sell DDR, the newer type of memory, at the same price as it was selling SDRAM, the older type of memory. This was an attempt to promote and spur interest in DDR to be the mainstream memory. And what happened when the other manufacturers, such as Hynix and Samsung, found out about this program? As reported in various e-mails, their reaction was to say that Micron was out of its mind and would lose millions of dollars, and that they would have no part in participating in this program. So Micron was clearly acting on its own.

So why did Ms. Turner write that it was "No problem!" that the price of DDR was low, and that Micron was actually asking the other manufacturers to lower the price of DDR? At the time, the DRAM market had collapsed, and companies were exiting the industry. So the notion of getting others to lower their prices, especially in light of their different incentives, was absurd and "gallows humor" under dire circumstances, as Ms. Turner explained.

IV. Limitations on the Use of Guilty Pleas

***Moderators**: After the court gives a lengthy description of the Hynix guilty plea, describing in great detail the price fixing conspiracy on DRAM, the court says that the plea can only be used for limited purposes of determining whether it was part of the common plan or whether the parties had the means to conduct the plan. How did that impact the use of the plea?*

Nissly: One interesting aspect of this case was that, although Judge James McBride presided over the trial, Judge Richard Kramer handled the pretrial proceedings, including the motions *in limine* regarding the guilty pleas. Judge Kramer directed the parties to package all of his pretrial rulings in a so-called "green binder" so that Judge McBride would have the pretrial rulings available during trial. Special Instruction No. 1, which related to the Hynix guilty plea and which Judge McBride gave at the beginning of the case, came out of that process. That instruction was the subject of a lot of arguments back and forth, but it attempted to capture Judge Kramer's ruling that Rambus couldn't use

the Hynix guilty plea as character evidence, but could use it for the purposes permitted by Evidence Code section 1101(b):

> [SPECIAL INSTRUCTION No. 1]
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> On May 11, 2005, Hynix Semiconductor, Inc. ("Hynix") pleaded guilty in the United States District Court for the Northern District of California to the felony of participating in a conspiracy in the United States and elsewhere to suppress and eliminate competition by fixing the prices of dynamic random access memory ("DRAM") to be sold to certain original equipment manufacturers of personal computers and servers ("OEMs") from on or about April 1, 1999, to on or about June 15, 2002, in violation of Sherman Antitrust Act, 15 U.S.C. Section 1.
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> The definition of "DRAM" for purposes of Hynix's plea was as follows: "DRAM" means dynamic random access memory semiconductor devices and modules, including synchronous dynamic random access memory ("SDRAMM") and double data rate dynamic random access memory ("DDR") semiconductor devices and modules, but not Rambus dynamic random access memory ("RDRAM") semiconductor devices and modules.
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> In pleading guilty, Hynix admitted the following facts:
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> The "relevant period" is that period from on or about April 1, 1999, to on or about June 15, 2002. During the relevant period, Hynix was a corporation organized and existing under the laws of Korea. Hynix has its headquarters and principal place of business in Icheon, Korea. From April 1, 1999, to approximately 2001, Hynix did business as Hyundai Electronics Industries Co., Ltd., a corporation organized and existing under the laws of Korea. In approximately October 1999, Hynix acquired LG Semiconductor Co., Ltd., a corporation organized and existing under the laws of Korea.
>
> DRAM is the most commonly used semiconductor memory product. DRAM provides high-speed storage and retrieval of electronic information in personal computers, servers, and other devices. During the relevant period, Hynix was a producer of DRAM and was engaged in the sale of DRAM in the United States and elsewhere. During the relevant period, Hynix's DRAM sales, directly affected by the conspiracy, to OEMs in the United States totaled $839 million.
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> During at least certain periods of time during the relevant period, Hynix, through certain officers and employees, participated in a conspiracy in the United States and elsewhere among certain DRAM producers, the primary purpose of which was to fix the price of DRAM sold to certain OEMs. The conspiracy directly affected these OEMs in the United States: Dell Inc., Hewlett-Packard Company, Compaq Computer Corporation, International Business Machines Corporation, Apple Computer, Inc., and Gateway, Inc. In furtherance of the conspiracy, Hynix through certain officers and employees, engaged in discussions and attended meetings with representatives of certain other DRAM producers and sellers. During these discussions and meetings, agreements were reached to fix the price of DRAM to be sold to certain OEMs.

> At certain times during the relevant period, DRAM prices decreased significantly. Nevertheless, Hynix and its co-conspirators reached agreements to limit the rate of price declines, which were achieved with varying levels of effectiveness. At other periods, Hynix and its co-conspirators reached agreements on price increases and were able to institute price increases on DRAM sales to certain OEMs.
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> During the relevant period, DRAM sold by one or more of the conspirator firms, and equipment and supplies necessary to the sale of DRAM, as well as payments for DRAM, traveled in interstate and foreign commerce. The business activities of Hynix and its co-conspirators in connection with the sale of DRAM affected by this conspiracy were within the flow of, and substantially affected, interstate and foreign trade and commerce.
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> Acts in furtherance of this conspiracy were sales by one or more the conspirators to OEMs in this District.

We showed that the plea did not involve the complicated "relative price fixing" conspiracy alleged by Rambus, under which the defendants allegedly manipulated RDRAM prices high and DDR prices low, but instead dealt with attempts to limit the declines in DDR prices, and in a few instances raise DDR prices. Higher DDR prices actually would have helped sales of the competing RDRAM product, not hurt them. And the only evidence regarding actual prices, which was offered by the defendants, showed RDRAM prices dropped dramatically. The case was about Intel's decisions, and Intel decided to withdraw its support for RDRAM because of the delays in the market introduction, its lack of performance advantages, its inherent higher costs, and Rambus' inability or unwillingness to solve RDRAM's problems.

Williams: Because of the pretrial rulings, we were limited to arguing that Hynix's guilty plea, in which it admitted to participating in a conspiracy to fix the prices of DDR and SDRAM during precisely the same time frame that we alleged in the complaint, should be used by the jury to establish that Hynix had the opportunity to engage in the common scheme we had alleged and that it hadn't stumbled into a smoke-filled room by mistake.

We also argued that the absence of a criminal conviction for RDRAM price fixing did not mean that no conspiracy existed. It simply meant that no conspiracy had been charged against Hynix. Obviously, this argument would have been a lot stronger had the jury also known that Hynix had agreed to cooperate with the DOJ in its investigation of RDRAM price fixing and that Samsung and Infineon had pled guilty to fixing the prices of RDRAM. But because the court excluded the cooperation paragraph of the Hynix plea, and excluded the RDRAM guilty pleas by Samsung and Infineon, Hynix was able to tell the jury, without contradiction, that the guilty pleas had "nothing to do" with RDRAM.

V. Explaining and Distinguishing Guilty Pleas

***Moderators**: Bart, next question for you. We've heard your presentation and the defense presentations, and there are obviously issues as to whether there is a single price fixing conspiracy or*

whether there are multiple conspiracies, and whether any of those conspiracies related to the fate of RDRAM. Tell us about how you used the Hynix guilty plea in trial in that regard.

Williams: As I noted above, our use of the Hynix guilty plea was limited by a pretrial ruling and a jury instruction that defined how we were able to utilize it. We were able to use it to establish that Hynix had participated in a "common scheme or plan" with respect to RDRAM, and had the opportunity and means to carry out that conspiracy.

I think the more interesting question, though, is what we were *not* able to do with the various guilty pleas. In 2002, after the Department of Justice opened an investigation into possible DRAM price fixing, Micron swiftly offered to cooperate in exchange for amnesty. In 2004, Infineon pled guilty to fixing the price of DRAM, including RDRAM, and admitted that that conspiracy had operated from April of 1999 through the middle of 2002. (Rambus filed its complaint in 2004). In 2005, Hynix plead guilty to fixing the price of SDRAM (the product that was the standard before RDRAM), and to fixing the price of DDR (the product that was the standard after RDRAM), but did not plead guilty to fixing the price of RDRAM (although, as I noted above, Hynix did agree to cooperate with the DOJ in its investigation into RDRAM price fixing).

The final company in the door was Samsung, which pled guilty to fixing the price of all three DRAM flavors: SDRAM, RDRAM and DDR. Samsung admitted to participating in an RDRAM price fixing conspiracy between January 2001 and June 2002.

We expected prior to trial that the jury would hear that Samsung, an alleged co-conspirator, had admitted to, and had pled guilty to, fixing the price of RDRAM. Judge Kramer originally ruled that the Samsung plea would come in, but after Samsung settled with Rambus, he reversed course and held the guilty plea to be inadmissible hearsay. And that, I think, was a very important reason why the jury's verdict came out the way it did.

The court's pretrial rulings created an opportunity at trial for the defendants to argue that the alleged conspiracy could not have existed unless Samsung had been a participant. Samsung had the largest market share of any DRAM manufacturer, and there was evidence that Samsung had spent many millions of dollars ramping up for production and sales of RDRAM. So the defendants argued that Samsung was Rambus' best friend and biggest supporter, and not a conspirator. They could not have made that argument if the Samsung plea was in front of the jury.

We contended at trial that once the defendants made that argument, the jury should have been able to hear that Samsung had pled guilty to fixing the price of RDRAM during the relevant period of time, regardless of what Judge Kramer had held. Judge McBride ultimately, after many hearings, chose to stick with the ruling that had been rendered by Judge Kramer.

***Moderators**: Let's go back to the Hynix plea because the jury was told quite a bit about the fact that Hynix was an overseas company, and that it and its executives had entered guilty pleas for price fixing memory products. What measures did you take to blunt the effect of the guilty admissions?*

Nissly: We knew this was a critical issue, obviously. So during jury selection, I asked the potential jurors about the Hynix guilty plea, whether they could follow the judge's instructions, and whether they could understand the differences if we showed that the conspiracy to which the company pled guilty was different than the conspiracy Rambus claimed in its case. This was an issue we dealt with in our opening. And fundamentally, the conspiracy that Rambus was alleging was quite different because Rambus was trying to argue that the conspiracy had been one to fix a relative price of RDRAM compared to DDR so as to encourage OEMs to favor DDR. That is a pretty complicated kind of conspiracy.

We were able to show from the language of the plea agreement that what the plea agreement involved was limiting rates of decline in prices for SDRAM and DDR (because prices in the DRAM industry typically drop steeply) and in some cases imposing some increases. So the point was to show the jury that the conspiracy covered by the plea agreement and the conspiracy alleged by Rambus were quite different. Rambus was trying to convince the jury that the plea was something it wasn't.

***Moderators**: We understand that the exclusion of the Samsung guilty plea is one of the issues on appeal. Can you briefly explain the legal wrangling that resulted in exclusion of the Samsung plea agreement at the trial level?*

Williams: As I noted above, Samsung pled guilty to price fixing of RDRAM as well as to SDRAM (the previous memory standard) and DDR (the memory system that replaced SDRAM). When Samsung settled about 18 months prior to trial, the court held that the Samsung plea could only come into evidence for a non-hearsay purpose and that the jury would *not* hear that the Samsung plea included RDRAM.

We argued that Samsung's admission in its guilty plea to participating in a conspiracy to fix RDRAM prices should have come into evidence under several different provisions in the Evidence Code, such as Evidence Code Section 1300 (judgment of a conviction of a felony), Evidence Code Section 1230 (statement against penal interest), and Evidence Code Section 452.5 (official records of criminal convictions). We also argued that the court's exclusion of the Samsung plea was highly prejudicial because it allowed the defendants to argue (repeatedly) that (a) no conspiracy concerning RDRAM could have been economically successful without the participation of Samsung, and (b) Samsung was not motivated to keep RDRAM prices high, and was instead "Rambus' biggest fan," because it had spent hundreds of millions of dollars developing and manufacturing RDRAM.

In our view, the jury was never told the truth: that although Samsung did indeed manufacture and sell a lot of RDRAM, it also pled guilty to conspiring to fix the price of RDRAM. Other evidence showed that Samsung didn't do that to *help* Rambus; they did it because they wanted DDR to succeed and become the next standard memory technology.

We think the court's erroneous decision to keep the Samsung plea from the jury under these circumstances is a compelling issue on appeal, in part because the *only* question that the jury answered was whether Samsung or Infineon had conspired with Hynix or Micron to fix RDRAM prices or otherwise block RDRAM's market success.

And while we didn't talk to the jurors directly about this issue, at least one juror who spoke to a Reuters reporter a day or two after the verdict was quoted as saying that the jury had been deadlocked 7-5 in Rambus' favor for more than a month, and that if the jurors had known the full story about the guilty pleas, it would have mattered in the deliberations.[4]

Price: Obviously we disagree. Rather than give a point-by-point rebuttal, I will just point out a few things. The Samsung guilty plea stated that Samsung artificially raised the price of SDRAM, DDR, and RDRAM. As you see from Bart's comments, Rambus believes that the plea constitutes evidence that Samsung wanted DDR to succeed and RDRAM to fail.

There is no logical reason to believe that. Rambus' conspiracy theory requires the jury to conclude that the alleged conspirators artificially raised the price of RDRAM and *lowered* the price of DDR. That is contrary to the Samsung plea, which shows that Samsung was an equal-opportunity price fixer, artificially raising the price of all types of memory. In addition, the Samsung plea explicitly states that Samsung invested in, promoted, and marketed RDRAM as a competitive product in the marketplace, which contradicts Rambus' conspiracy theory. Furthermore, the Samsung plea states that at certain points in time Samsung artificially raised the price of SDRAM and DDR, but not RDRAM. Under Rambus' logic, the Samsung plea shows that Samsung wanted SDRAM and DDR to fail, and RDRAM to succeed, which is the opposite of Rambus' theory in this case.

Incidentally, the only parties that offered evidence of the actual price of SDRAM, DDR or RDRAM in the case were the defendants; Rambus did not seek to admit this evidence in its case-in-chief. That is because the price data is inconsistent with the conspiracy theory that Rambus seeks to prove through its superficial and prejudicial arguments using the Samsung guilty plea.

Nissly: To clear up one thing, on the first day of trial the jury heard videotaped testimony from a Samsung witness admitting that the company had pleaded guilty to price fixing. So the jury knew about that. Rambus' complaint is that the Samsung plea *agreement* itself was excluded from evidence, but the exclusion of the Samsung plea agreement was proper.

VI. Amnesty Candidates and Snitch Status

***Moderators**: Bill, Micron was the amnesty candidate in the DRAM investigations that started back in 2002 and some would say, led to further investigations into LCDs, CRTs, SRAM, flash, and other products. Can you tell us about how Micron's cooperation and status as an amnesty candidate played out at trial?*

Price: Well, the trial court excluded evidence of the amnesty agreement itself because the court found that the agreement was not relevant. Although the court kept out the explicit argument that Micron was a "snitch," Rambus was able to get into

4 Levine, "*Exclusive: Rambus Jury Shifted Views As Deliberations Wore On*," Nov. 18, 2011, available at http://www.reuters.com/article/2011/11/18/us-rambus-micron-trial-idUSTRE7AH2PF20111118.

evidence that Micron had admitted that it had conversations that had led to artificially high prices on SDRAM and DDR, but not on RDRAM because Micron never sold RDRAM in commercial quantities. In addition, Rambus was able to get into evidence that Mr. Steve Appleton, Micron's former CEO, had spoken to the press and said that you really can't fix prices in this industry. Rambus also got into evidence that Mr. Appleton was chided by the DOJ for making that statement, and that he was forced to issue a public retraction.

I'm not sure if the jury was able to put two and two together and figure out Micron was a "snitch." That would be the impression from all of this, but certainly what the jurors understood, and what we knew they would understand going into the trial, is that Micron admitted its employees had done the same things as the employees of other companies who had pled guilty to price-fixing. So it was as if there were a guilty plea by Micron on the conspiracy concerning artificially raising the prices of SDRAM and DDR.

***Moderators**: Micron: What advice might you give to the attorneys representing the "snitch" in a price fixing conspiracy?*

Price: It is hard to say because we had the double problem of not only being the "snitch," but also having that "snitching" be about something other than what was at issue in the case being presented to the jury.

One thing that is important, both for the so-called "snitch" but also for any company that has previously admitted to something, is to make sure that you communicate to the jury that the company knows that something wrong was done, and that the company has done what it could do to make up for that—whether by payment of fines or otherwise.

VII. Depositions and Deposition Designations

***Moderators**: Everyone takes lots of depositions in these high-stakes antitrust cases. Were the depositions useful at trial and are there any lessons on how the depositions or deposition designations might have been done differently to be more useful or valuable?*

Williams: This case highlights the importance of the effective use of depositions. Most of the defendants' sales and marketing people whose documents established the existence of an anticompetitive conspiracy were beyond the subpoena power of the court, and the defendants did not call their out-of-state sales or marketing personnel as witnesses at trial. So, the depositions were crucial. Most, but not all, were videotaped, including several videotaped depositions taken in a federal prison.

It's important to make sure that the lawyers who take videotaped depositions take them as if they are examining a witness in court. The voice, inflection and pacing of the deposing attorney are important to the value of the deposition. We had some great deposition excerpts showing defense witnesses who either couldn't remember, or couldn't explain, why they were communicating with their so-called competitors about RDRAM prices. We are making good use of these clips in our in-house training programs. Admittedly, some of our depo clips were a little dry, but we needed to use them in order to move the emails into evidence. And several of our best clips, such as testimony by a Samsung vice-president about his company's RDRAM price fixing, were excluded because of the pretrial rulings about the Samsung plea. Finally, we were disappointed

when Judge McBride declined the jurors' requests, during jury deliberations, to see the videotaped testimony of some key witnesses on the conspiracy issue.

Nissly: Hynix brought a marketing executive, Mr. Tabrizi, to testify; indeed, Rambus called him adversely as its first live witness. Hynix called him back in our case, and he ended up testifying for several days.

But clearly depositions were important in this case. The witnesses were located around the world. A number of them had changed employment between the time of the events in dispute (in the 1990s and early 2000s) and the trial in 2011. There were over 150 depositions taken in the case, and virtually all of them were videotaped. Excerpts of over 30 depositions were used at trial, after a months-long, laborious process of designations, counter designations, and question-by-question argument and rulings on admissibility. Initially, Judge Kramer, who managed our pretrial proceedings for the first seven years of the case, held hearings and ruled on deposition designations. This process continued throughout trial before our trial judge, Judge McBride.

It is very important to ask your own witnesses questions at the deposition to create a record you can use in response to designations by your opponent if it turns out the witness is not available to testify at trial. With the passage of time, employment changes and with deponents increasingly located overseas, the odds you will be able to call the deponent to testify live at trial are sometimes long.

***Moderators**: Defendants: Rambus played excerpts from depositions of the defense personnel during its closing; did you consider that effective and what did you do to counter this?*

Nissly: Part of Hynix's strategy for dealing with Rambus' expected deposition designations was to ask its own witnesses questions at their depositions. We did so. More generally, Hynix countered Rambus' tactic by arguing that Rambus was taking the evidence out of context and ignoring the real reasons that RDRAM failed to win acceptance as PC main memory. We showed that Rambus' deposition sound bites were only one piece of a much larger story.

VIII. Third-Party Testimony from Intel

***Moderators**: Both sides seemed to acknowledge the importance of the testimony from Intel personnel; what was done to either highlight or blunt this testimony?*

Williams: There is no doubt that some of the testimony at trial by an Intel executive named Paul Fahey was emotionally delivered and largely critical of Rambus. But his trial testimony was very different from his contemporaneous emails. During the cross of Mr. Fahey, we used emails written at the time of the events, and Mr. Fahey's deposition testimony, to establish that: (1) Fahey had conceded that the problems with the RDRAM technology were solved prior to its release to the marketplace in 1999 (in his words, "the product was clean"), despite difficulties encountered prior to launch; (2) the primary problem with the RDRAM technology from Intel's point of view was that the price of the technology (which was set by the defendants) was too high; and (3) Mr. Fahey and his colleagues at Intel were not aware at the time of the anticompetitive activities of the defendants.

We emphasized in our closing that a decade had passed since the winner-takes-most market decision was made between RDRAM and DDR. Once Intel moved away from RDRAM because the price didn't fall as it normally does for technology after it enters a market, Intel devoted its energies to making DDR work with its processors. Over that decade, billions of dollars in DDR sales (and Intel processor sales) were made, Intel entered into business ventures with Micron, and the engineers at Intel, Micron and Hynix worked closely together. Lots of water had passed under the bridge. More importantly, the Intel engineers and executives who testified at trial were simply ignorant of the facts about the conspiracy both at the time of the events in question and at the time they testified at trial. They knew that the price of RDRAM was too high, and they had bought into the defendants' story that the high price was due to the RDRAM design. Because they had never seen the powerful emails and notes that established the existence of the conspiracy, we told the jurors that the Intel witnesses simply didn't know what the jurors knew, because only they, the jurors, had seen all of the defendants' emails during the trial.

We also relied on numerous Intel presentations both internal and external that extolled the advantages of RDRAM, criticized DDR, and said that the "hinge factor" that would decide the race between RDRAM and DDR was RDRAM pricing. The defendants took the position that all those statements were insincere and represented efforts by Intel's marketing department to boost sales of Intel's controllers that used RDRAM. We didn't think that was very credible.

Price: I think that's an unfair characterization of Mr. Fahey's testimony, as well as the Intel evidence generally. Mr. Fahey, for example, had many emails and other witnesses corroborating his testimony, which we were able to present to the jury. We called multiple Intel witnesses who knew the reasons why Intel decided to drop RDRAM, and who explained those reasons which had nothing to do with a conspiracy. More importantly, these Intel witnesses, including Mr. Fahey, had internal email and document communications from the time when these decisions were being made that demonstrated the massive difficulties they had in working not only with RDRAM, but also with Rambus itself.

By calling Intel witnesses, we presented evidence from within Intel. Rambus' evidence regarding Intel was heavily dependent on statements Intel made to third parties and the public, which were always made through the filter of marketing the products that Intel had on the market at the time which used RDRAM. In effect, Rambus wanted the jury to believe that Intel's marketing of RDRAM was indicative of the company's views on RDRAM. Internal Intel documents and emails that we were able to present demonstrated that in fact Intel was moving as quickly as possible to abandon RDRAM across its product roadmap.

I think it is telling that Rambus did not present a single live witness from Intel to testify in its case. Rambus acknowledged that RDRAM could not become mainstream memory without Intel's support. Intel was, in Rambus' words, the "kingmaker." Yet, Rambus did not present a single live Intel witness to explain why Intel withdrew its support of RDRAM. The only Intel testimony Rambus presented was a deposition from Pete MacWilliams that was mixed at best. And it is important to note that Mr. MacWilliams was widely known within Intel as a devoted supporter of Rambus

and RDRAM, to the point that others told him that it was "time to get away from management by hope" and accept that RDRAM was a failure.

Nissly: The testimony of the Intel witnesses, including Paul Fahey, was a critical aspect of the trial. Everyone agreed that Intel's decision to support, and then its later decision not to support RDRAM was the most important fact in the case. We proved that Intel made its decision to withdraw its support for RDRAM for reasons that had nothing to do with Rambus' claims of a conspiracy.

***Moderators**: But what about Intel documents saying that the problems with RDRAM were fixed prior to its launch in 1999?*

Price: That was a major argument that Rambus made at trial—that, sure, RDRAM did not work well at first, and it was late to market, but that those bumps in the road were worked out and would not have had any effect going forward on the product's reception.

That's not really the case, for several reasons. As Mr. Fahey explained, Intel and its employees became convinced as a result of these technical hurdles and delays that Rambus and its engineers simply were not up to the task of bringing to market a fully functioning RDRAM device, and that Rambus was content to leave the hard work to Intel and the DRAM manufacturers. That created a lot of ill will toward Rambus at Intel, especially after Rambus unveiled its plans to sue the industry, claiming it owned the technologies which competed with RDRAM. That ill will doesn't resolve itself simply because the product does finally launch, and it poisoned Rambus' and Intel's relationship for a long time.

More generally, the Intel witnesses, as well as numerous third parties, explained that it was not enough for the problems with RDRAM to eventually be resolved. There was a window of opportunity for RDRAM in the market, and its delays in launch and problems made it miss that window and sapped the confidence in subsequent RDRAM products. Again, that is something that cannot be undone simply by saying "well, it works fine now." For example, imagine the difficulties that, say, Yugo automobiles would have if they were to return to the United States market, even if their latest cars were very well made. Bad impressions and missed opportunities linger long after they happen, and that was the case with RDRAM.

Of course, another issue that we drove home at the trial was that, no matter what Intel or Rambus did, RDRAM would always have been inherently more costly to manufacture than SDRAM or DDR. In an industry like computer memory where margins are razor thin, those costs alone doomed RDRAM. As Mr. Fahey testified, to this day at Intel, "Rambus" is used as code for a project that sounds good on paper, but that in reality is a huge problem and is going to cost too much.

Williams: Mr. Price and I disagreed during the trial on many things; this issue is one of them. Good technology doesn't die because of an early "bad impression." If that was enough to kill RDRAM, why did the defendants continue to communicate with each other—long after the initial launch delay—about ways to "drive Rambus away" or to "kill" RDRAM? Why did Hynix's head of marketing urge his counterparts at Micron and Infineon to keep RDRAM prices high in order to send a message to Intel to "get your head out of your ★★★" with respect to RDRAM? Why did a top Hynix

executive *apologize* to a top Micron executive because a "stupid Hynix person" had made positive statements about RDRAM in an article? Why did Micron report to Samsung in early 2001 that it would not compete for RDRAM sales? The defendants offered no answers to these questions.

Intel believed in the RDRAM technology. It is beyond dispute that almost a year after the so-called "technical hurdles and delays" in the initial launch of RDRAM, Intel introduced its new, advanced Pentium 4 microprocessor that worked *only* with RDRAM. At the time, Intel expressed the view—both externally and internally—that RDRAM was "essential" to achieving maximum Pentium 4 performance and that *if* RDRAM prices came down, that performance enhancement would "carry the day." But it didn't happen. The price gap between RDRAM and competing technologies stayed high, just as the defendants had planned, and DDR, not RDRAM, eventually "carried the day."

IX. Live Testimony and Absent or Missing Witnesses

***Moderators**: Hynix/Micron: Rambus told the jury that the defendants refused to allow their sales persons from Boise and Seoul to attend trial and testify. Did you anticipate this and what was your strategy to counter this?*

Price: We did anticipate that Rambus would try to do this. It is important to remember that Rambus' case relied on an attempt to confuse two different conspiracies—the one investigated by the DOJ which primarily involved *raising* the price of SDRAM and DDR, and the one that Rambus alleged which involved *lowering* the price of SDRAM and DDR. Interestingly, although we didn't get to present this at trial, the DOJ itself had said in a court filing that Rambus was not a victim of the conspiracy that the DOJ investigated.

The sales persons, as shown by Rambus' deposition questions, were the witnesses who knew about the communications investigated by the DOJ. We did not play Rambus' game by allowing Rambus to call these witnesses live at trial to confuse the jury with testimony about that conspiracy.

Instead of having our witnesses focus on the conspiracy investigated by the DOJ, we had our case focus on the real reasons that RDRAM failed—it was technically more difficult and inherently more costly to make than the competing types of memory. The best way to tell this story was through neutral third parties who discovered the problems with RDRAM and with Rambus for themselves. They included chipset and processor companies like AMD, computer manufacturers like Apple and HP, and, of course, Intel, the largest chipset and processer manufacturer. The witnesses from these companies all basically said the same thing: supporting RDRAM was a mistake due to its cost and technical problems, and/or Rambus' own shortcomings as a business partner. Besides cost, RDRAM was not as fast as expected, and the competition was not as slow. It was late in coming, and Rambus was not striving to speed it. In fact, before the alleged conspiracy had run its supposed course, Rambus had moved from opposing the competing technology to licensing it. But I can't claim credit for anyone's answers. Trial counsel deal in questions and the challenge of the job is to pose questions that keep the real issue in juror's minds.

Ultimately, the jury saw through Rambus' attempt to confuse the two conspiracies and realized that these third parties were telling the truth about the real reasons for RDRAM's failure.

Williams: I agree with Bill that our case would have been stronger if the defendants had allowed the jury to weigh the credibility of *live* defense witnesses as they tried to explain to the jury the incriminating emails they had written or received. So I can understand why they chose not to bring those witnesses to trial. I disagree, however, with Bill's view that the jury ultimately decided that RDRAM failed for technical reasons. They didn't get past question one on the form (whether there was a conspiracy), and the issues Bill is talking about were raised in question four (substantial factor). And as best as I can recall, the jury didn't ask for read back of any of the technical testimony Bill is talking about, which suggests that that issue wasn't their focus.

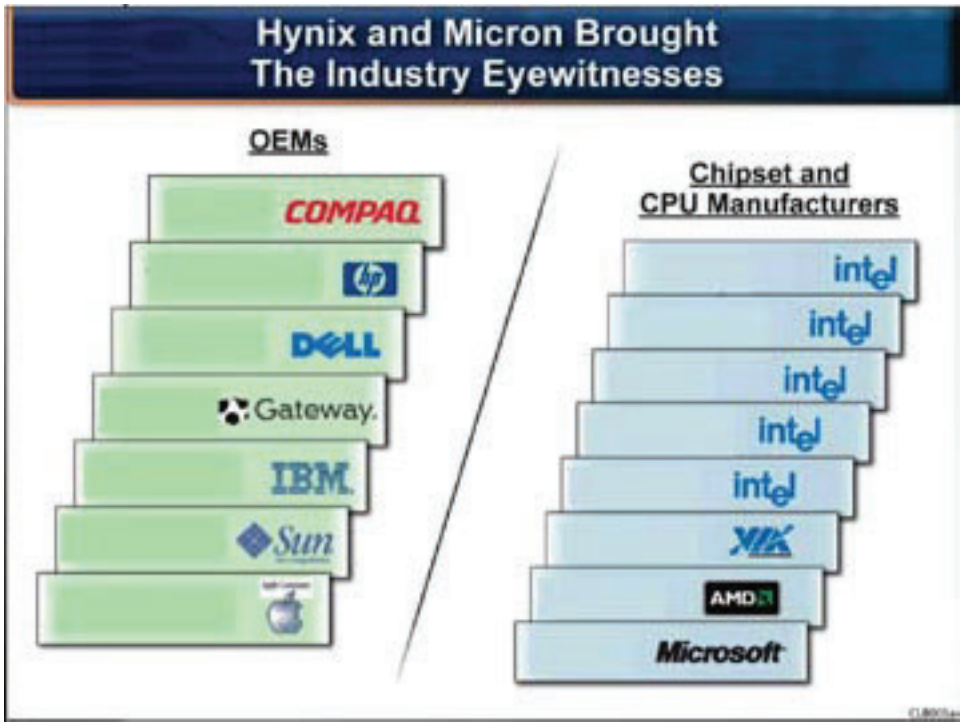
***Moderators**: Hynix/Micron: There seemed to be substantial evidence both in documents and in deposition testimony that the defendants and in particular, their salespersons were having frequent joint communications that certainly had the appearance of impropriety and conspiracy. Were you concerned that the failure to bring the witnesses to trial would be used to advantage with the jury, and suggest that the truth was worse than the documents and depositions?*

Nissly: While Rambus seized on sound bites from documents or deposition testimony, we focused on putting the evidence (and the sound bites) in context to explain what was meant. For example, Rambus emphasized an email from a Hynix marketing executive that referred to "RDRAM killing." Rambus emphasized this email at trial as it had done in pretrial arguments. But in the very same email, the Hynix executive recommended that two of the ten DRAM products Hynix should focus on should be RDRAM products. Also, some of the emails referring to pricing communications that Rambus used were from a time period before RDRAM was even in the market, and some were from long after Intel's decisions had sealed RDRAM's fate. So it was important for us to return to many of the documents Rambus used to show them in their full context.

Of course, we couldn't fall into a purely responsive mode, using all of our trial time to deal with the exhibits Rambus used, because we had a lot of our own evidence that we needed to present. So we also tried to give the jury the tools, such as a timeline showing the key events, that would help them evaluate and put into context the timing and circumstances of the sound bites (such as the "RDRAM killing" email) that Rambus liked to repeat. In addition, we explained the DRAM market to the jury, so that they understood why Rambus' claims were unfounded. For Hynix, we showed that Rambus' focus on one Hynix executive was misplaced because he did not determine the company's strategy on RDRAM.

Although Rambus focused on communications between the DRAM companies in which prices were mentioned, it was Hynix—not Rambus—that offered evidence at trial of actual RDRAM prices. We showed charts comparing sales prices over time of specific RDRAM products sold by Hynix and other companies to the OEMs. And that evidence showed that various companies offered RDRAM at different prices, with Hynix's RDRAM prices often being the lowest.

Ultimately, it was Intel and other industry players that decided whether RDRAM would succeed or fail in the market. The defendants were the ones who brought numerous industry witnesses including witnesses from Intel, Dell, AMD, Via, and other companies to testify at trial. We also used a couple of graphics reminding the jury of the extensive third party witness testimony they heard, such as the following:



Price: Like I've said, we needed to address all aspects of how we would respond to Rambus' attempts to capitalize on the DOJ's investigation and to bootstrap the conspiracy Rambus alleged onto the conspiracy the DOJ investigated. That included how best to deal with the deposition testimony that Rambus took in this case which were unclear as to whether the questions were about the conspiracy being investigated by the DOJ or the conspiracy theorized by Rambus.

The Rambus depositions actually focused on the conspiracy investigated by the DOJ, not the conspiracy alleged by Rambus in this case. So rather than present witnesses and documents regarding the conspiracy the DOJ investigated, which is what Rambus wanted the focus of the case to be, we focused on our affirmative case and explained the technical, cost, and business reasons that doomed RDRAM to failure. Too often defendants content themselves with justifying their business judgments, of which jurors are always skeptical. Defendants must explain themselves, of course, but they can rarely stop there, though they too often do.

We explained, as we had to, the past price-fixing to the jury. But we then showed how the alleged conspirators did not have a common interest here and acted quite differently toward different ends, which was important. And using third parties we proved why RDRAM did not win, which was key. I think we did that effectively, and

presented compelling evidence that allowed the jury to look past the evidence of certain conspiratorial conduct, and focus on the issues that this case really presented.

X. Venue and Court Considerations

***Moderators**: There are multiple actions between the parties in several district courts around the nation. The antitrust conspiracy alleged in this case could have been brought in a federal or state court, and could have been brought under the Sherman Act, Cartwright Act or both. What were the considerations that led this case to be filed as a state court action in the San Francisco Superior Court, and to file it solely under state antitrust law and why did it remain there.*

Williams: I became involved in the case only after it had been filed, but I always assumed that we were interested in getting to trial quickly and thought we could do so in San Francisco.

Price: I understand that, early in the case before our involvement, there was an effort to have the case transferred to Santa Clara County where Rambus was headquartered. I also know that there were efforts by Hynix and Samsung to have the claims against them submitted for arbitration in Korea based on arbitration provisions in contracts that they had signed with Rambus. But beyond those early procedural moves, no, we didn't try to have the case transferred to another forum, and instead focused on winning it in San Francisco.

Nissly: Early on, Hynix filed a motion to transfer the case to Santa Clara County, where Hynix's U.S. subsidiary is headquartered and where Rambus is located, but the motion was denied. We also moved to compel arbitration because Rambus and Hynix had agreed in a license agreement to arbitrate various disputes. The trial court found that the antitrust case fell within the scope of the mandatory arbitration clause but, for reasons peculiar to California's rules, did not require Rambus to arbitrate. The appellate court denied our writ. So the case remained in the San Francisco Superior Court through trial.

XI. Co-defendant Considerations and Foreign Bias

***Moderators**: Were the defendants concerned that the price fixing conduct and pleas of their co-defendants effectively reinforced the existence of the conspiracy or otherwise tainted perceptions, and was consideration given to separate trials or severance?*

Price: We faced the unduly prejudicial effects of Rambus coming into court, waving around a plea and attempting to use it as character evidence. So we moved to exclude this evidence, but we did not succeed in excluding all evidence of the pleas. We also faced the possibility that Rambus would be successful in confusing the jury about the conspiracy covered by the pleas and the conspiracy alleged by Rambus in this case, so we devoted a lot of effort to making sure that our presentation was as clear as it could be that the conspiracy alleged by Rambus was different than, and in fact inconsistent with, the conspiracy to which there was a guilty plea.

Williams: It was obvious during the pre-trial proceedings and the trial that the defendants were very worried about the prospect that the jury would learn that Samsung and Infineon had pleaded guilty to participating in a conspiracy to fix the price of RDRAM during the relevant time period. Practically their entire story depended on

the jury's ignorance of that fact. We felt that on several occasions Judge McBride came very close to allowing the Samsung plea into evidence; he even acknowledged that an admission in federal court to a felony offense was an admission against penal interest under the Evidence Code. But ultimately, he stuck with Judge Kramer's ruling.

***Moderators**: Micron: Was Micron concerned about the possibility of being tainted by bias against foreign companies, and what measures were taken to blunt this possibility?*

Price: We faced all sorts of biases: larger companies vs. a smaller company, a "local" company vs. non-local companies, plaintiff vs. defendant, and, yes, foreign vs. domestic companies. At the end of the day, though, there is only so much you can do about these biases, and if you spend all day worrying about them, you lose sight of one of the goals of a trial: to communicate your message and presentation in an effective manner that can overcome a juror's possible biases against your client.

One of the other things that you can do with a potential bias is to turn it to your advantage. This is, I think, one of the things we were able to do in comparing Micron to its foreign co-defendants. As I mentioned before, emphasizing the differences in corporate strategies and incentives among Micron, Hynix, and Samsung was a key portion of our explanation of why Rambus' conspiracy theory did not make sense. When you are comparing Micron, the sole remaining DRAM manufacturer in the U.S. that has survived competition that has driven out big names like IBM, Texas Instruments, and Intel, to some of the biggest, most ubiquitous companies in the world like Samsung, it really does help to drive home just how different they are.

***Moderators**: Hynix: Did you feel that the plaintiff made efforts to highlight Hynix's status as a foreign company, and what was your counter?*

Nissly: Yes, we felt that Rambus made efforts to highlight Hynix's status as a foreign company. We tried in voir dire to determine whether this would be an issue for any potential jurors. But more importantly, our response was to prove that Rambus' allegations about Hynix's conduct were not true. We trusted that the jurors would decide the case based on the evidence they heard, not based on the fact that Hynix is a foreign company.

XII. Time Limitations

***Moderators**: What time limitations did you have for the closings and were time limitations during the trial an issue or problem?*

Williams: We did have a reasonable amount of time for closing. For closing argument, Rambus' opening closing was three hours long. Each defendant got about two and a half hours for their closings, and Rambus got 90 minutes for rebuttal.

During trial, we attempted, with mixed success, to expedite the proceedings by asking Judge McBride to impose reasonable time limits on all parties. We might have had a different view about time limits if more of the defendants' witnesses, particularly the convicted price-fixers, had been subject to trial subpoenas. Those exams would have been lengthy, especially if interpreters were required.

Price: The main time limits I recall were later in the trial, when Judge McBride imposed various time limits on us for witnesses. One example that I recall is Judge McBride only allowed us about an hour to examine Rambus' former CEO, Geoff Tate. That was quite a challenge—Mr. Tate had been the CEO of Rambus almost since its founding until long after the events at issue in this case. He was an active CEO, deeply and directly involved in both the courting and subsequent alienation of Intel by Rambus. He was also frequently in contact with not only the DRAM manufacturers but also the various consumers of DRAM, and, equally important, involved in all of the planning for Rambus' "Plan B" patent litigation strategy, including its now well-known spoliation of evidence.

There was a lot of ground to cover with Mr. Tate, because he not only has voluminous prior testimony that could be drawn on to obtain admissions, but Mr. Tate also has been repeatedly accused by judges of telling inconsistent stories regarding Rambus-related issues.

So with all of that ground to cover, the time limit was a real challenge, and forced us to think very hard about our strategy for Mr. Tate. There were tough calls, and they took a lot of thought within our team. We simply did not have the time to use a lot of stuff. All the same, I think we did a great job with Mr. Tate's examination, and I think that Judge McBride's time limit forced us to sharpen our examination to an extent that we might not have done otherwise.

XIII. Substantial Factor/Causation

***Moderators**: One of the Cartwright Act jury instructions asks the jury to find whether the acts of the defendants were a substantial factor in preventing RDRAM from becoming the standard for computer memory. This is basically a causation issue. The jury didn't actually answer that question, because after almost two months of deliberation, they did not find a conspiracy. However, can you share with us your approach to establishing or deflating the "substantial factor" element during trial?*

Williams: The defense argued that Intel pulled its support for RDRAM not because of high prices, but for other reasons, such as launch delays and high manufacturing costs. We argued (and, we think, proved) that the price of RDRAM was the "hinge factor" that determined its success, and that RDRAM prices had been inflated substantially because of price fixing. While it may have cost a bit more to make Rambus than SDRAM during the ramp up period, maybe 15%–20% more, the prices being quoted by the defendants for RDRAM were 200%–350% over the price of SDRAM. The manufacturing cost was not what was driving the prices.

There were many documents from Intel and others saying that price was the critical factor, and that the RDRAM prices were not coming down as normally happens once a commodity is pushed into the market. Witnesses who had been in the computer memory industry for years testified that it is typical for the price of a new DRAM technology to rapidly close on the price of the existing DRAM technology and, once that happens, the new DRAM would "waterfall" into many different market segments. But that didn't happen with RDRAM. We said it didn't happen because of the defendants' conspiracy—what Mr. Nissly refers to as "pricing chatter." Defendants said it didn't happen because of the cost to make RDRAM.

So with virtually every witness that the defendants called to the stand, we put in front of them their company's internal documents discussing the importance of RDRAM pricing. The questioning would be, looking at this document, wasn't price a substantial factor? It was hard for witnesses to say no to that simple question in light of the documents, and many witnesses would agree and give that to us. So we expected that once the jury got to that question on the jury verdict form, they would be able to check the box and find that while price may not have been the *only* concern, it was a "substantial factor" in deciding RDRAM's fate.

Price: Well, it is important to understand what Rambus alleged in this case. They were not just alleging that they lost some sales or lost some royalty revenues because, of course, when prices go up, then royalty revenues could rise as well (if quantity does not go down more than price goes up). So it was possible that Rambus was actually making more money when there was an artificial increase in RDRAM prices.

Instead, Rambus was alleging that because of an artificial increase in the price of RDRAM relative to the price of DDR and SDRAM, RDRAM failed to become the mainstream memory. To counter that allegation, we focused on testimony by folks at Intel that if RDRAM had a cost difference of more than 5% or so, then it would never be the mainstream memory standard. In addition, we presented evidence, including from Intel personnel, that given the size of a RDRAM chip, it was inherently more expensive by some 20% to make the RDRAM chip than a DDR or SDRAM chip (depending on the date, version, and supplier), and it would continue to be so for all time. That was only one of several factors why RDRAM was simply not cost-effective.

Rambus had argued that the size difference of RDRAM would eventually be eliminated, but Intel folks disagreed and said no, the disadvantage was inherent in the architecture of the chip itself and that it could never get small enough. So instead of concentrating on price, we concentrated on cost, along with the other problems with RDRAM. We established that the price of RDRAM was not a "but-for" cause of its failure to become the memory standard, and that it failed because of cost and other issues not caused by a conspiracy.

Nissly: The parties agreed that the jury would be given the standard "substantial factor" jury instruction, including the clause that states: "Conduct is not a substantial factor in causing harm if the same harm would have occurred without that conduct."[5] In addition to talking about the inherent cost disadvantage of RDRAM, as Bill mentions, we emphasized that Intel's decisions would determine how successful RDRAM would be because RDRAM needed Intel chipset support. Without Intel chipsets, there could not be viable RDRAM.

The "chatter" among employees of the defendants about DRAM prices didn't cause RDRAM to fail. It was the fact that Intel had decided, even before it launched its first RDRAM chipset, that it was going to use something different for its next generation of PC main memory. That decision was made for a lot of technical and business reasons that were unrelated and distinct from price and the alleged price fixing. Other important

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5 CACI 430; *see also Soule v. GM Corp.*, 8 Cal. 4th 548, 572-73 (1994); *Huitt v. So. Cal. Gas. Co.*,188 Cal.App.4th 1586, 1596, 1605 (2010).

industry players, like Apple, AMD, Via, and others, reached the same conclusion as Intel and rejected RDRAM for main memory.

XIV. Special Verdict Form and Rule of Reason Versus *Per Se*

***Moderators**: The Special Verdict form is a long and complex form. Can you describe the thinking and battles that took place about this form?*

Williams: We felt that the length and complexity of the form was primarily attributable to the trial court's erroneous decision to give rule of reason instructions in a *per se* case. Rule of reason instructions are much longer and more complicated than *per se* instructions and, in this case, meant that the jurors were asked, for example, to measure the harms from the defendants' price fixing against the benefits of that price fixing. We argued that price fixing is *per se* illegal and has no redeeming qualities as a matter of law, but on the last day before closing, the court agreed with the defense. We are contending on appeal that that ruling was clearly erroneous and should be corrected on remand.[6]

Nissly: The special verdict form resulted from Rambus' complicated liability theory and huge damage claim. Ultimately, the jury found Rambus did not prove a conspiracy and never reached the other questions in the verdict form about Rambus' antitrust claim. The same thing happened with Rambus' interference claim. The jury found there was no conspiracy, and therefore didn't reach the rest of the questions in the verdict form.

The court properly viewed this as a rule of reason case, not a *per se* case. Rambus wasn't alleging a conventional price fixing conspiracy, where companies get together to increase profits by maximizing prices. In reality, RDRAM prices dropped dramatically. So instead, Rambus argued that Hynix and Micron conspired with others to drive RDRAM into a market niche, using a variety of tools such as an alleged agreement between the defendants to keep RDRAM prices high and DDR prices low.

The defendant companies all had very different approaches to their RDRAM business plans, from Samsung (which was by far the largest supplier of RDRAM), to Hynix (which tried to find the right mix of RDRAM and DDR to meet its customers' requirements), to Micron (which decided not to manufacture RDRAM commercially at all). Yet Rambus argued that these companies came together not to maximize their profit from RDRAM, and not to boycott it completely, but instead to limit RDRAM's role to a niche.

Given the peculiarities of the conspiracy Rambus alleged, the court was right to conclude that it was not the type of practice with which courts have enough experience to be deemed *per se* illegal.[7] Judge McBride spent a great deal of time considering the issue. He met with us throughout the trial to hear argument and ask questions. By the

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6 *See Oakland-Alameda County Builders' Exchange v. F.P. Lathrop Constr. Co.*, 4 Cal.3d 354, 363 (1971) ("Under both California and federal law, agreements fixing or tampering with prices are illegal *per se*.").

7 *See, e.g., Reynolds v. Cal. Dental Serv.*, 200 Cal.App.3d 590, 597-98 (1988) (*per se* treatment limited to small category of practices that courts have considerable experience in evaluating, and can predict with confidence would be found unreasonable in almost all instances under the rule of reason).

time the Judge decided to give rule of reason instructions, he had heard all the evidence and made a correct, careful decision.

Price: One thing that's worth pointing out here, however, is that the jury concluded that Rambus had failed to prove the existence of the complicated conspiracy that it had alleged. Put differently, the jury answered no to the first question for each claim, and the rest of the verdict form was blank. Even in a *per se* case, which Judge McBride correctly ruled this was not, that is a fundamental question that the jury must answer before moving on to the other issues that Bart referenced. So even if this were a *per se* case, the question the jury answered would still have been on the form, and the verdict would not have been different. Rambus did not prove the conspiracy it had alleged, as it would have had to do either in a *per se* case or under the rule of reason.

***Moderators**: Did you have any feedback from the jury about the complexity of the form? Any thought that the mere complexity of the form was related to the final jury verdict?*

Williams: No.

Price: Bart's right, we did not get any feedback from the jurors about the form. However, it was clear that the jurors were taking their jobs very seriously. As a result, I don't think that it is fair to assume or speculate that they would have been deterred by the special verdict form's length when rendering their verdict.

XV. Expert Testimony on Semiconductor Technology

***Moderators**: There appeared to be a significant volume of conflicting expert testimony as to the relative strengths and weaknesses of RDRAM and the competing technology of the DDR Dram, SyncLink DRAM, or SDRAM. How did you make this technology and the product differences comprehensible to a jury, and account for how fast moving the technology is?*

Price: Your question highlights one of the key roles that a testifying expert should play in a trial. It is not enough to simply be an expert in the subject. Effective testifying experts are teachers that can take complicated issues, such as the gritty technical details underlying RDRAM's cost and technical problems, and translate them into concepts that are readily accessible to jurors drawn from very different walks of life.

Because the issues are somewhat removed from the knowledge of anyone not already immersed in the DRAM industry, they obtain a certain timelessness. Even though there has been a decade of rapid technological advances in the DRAM industry since the time that RDRAM failed, the jury isn't going to have much, if any, familiarity with what those advances were. Thus, it is easier for them to put themselves back in the state of things in the late 1990s than it would be for something they were much more familiar with, such as a cell phone.

Nissly: We spent a lot of time explaining how DRAM works in a computer system, which basically hasn't changed over time, although the speed and capability of various generations of DRAM has changed. We used many demonstratives and graphics with the experts which highlighted the pertinent differences.

Williams: While we didn't get any direct feedback from the jurors about this issue, it was our observation during the trial that the jurors felt the technology presentations to be overly long and rather boring. We think that defense counsel reached the same judgment, for they shortened the exams of the techie types as the trial progressed and dropped some entirely.

***Moderators**: What efforts were made to limit or disqualify the experts or invoke the court's gate keeping function on experts?*

Price: There were a lot of motions in *limine* filed regarding the proper scope of expert testimony in this case. We faced, for example, the possibility that Rambus' economist and damages witnesses would improperly attempt to opine on the ultimate issues of the case, or various highly contested and speculative assumptions fundamental to Rambus' theory, such as that in the but-for world, RDRAM would have displaced every competing technology, in every single market segment. The proper scope of expert testimony, and concerns about experts becoming paid spokesmen for one side or the other, are not really unique to our case.

Williams: There were numerous motions *in limine* filed by both sides that were directed to the expert testimony, but few if any were ruled upon. One interesting expert-related issue was the decision by Micron's counsel to have Micron's economist disavow any intent to testify about what economic forces were actually in play in the marketplace, apparently because of a fear that any testimony about Samsung's actual role in the market could result in the admission of Samsung's RDRAM guilty plea.

XVI. Use of Mock Juries and Their Value

***Moderators**: Given the dollars at stake, did you feel compelled to use mock juries to test the theories in this case? If so, did you feel that the mock juries provided any kind of useful feedback that you could not have gotten from questioning some people off the street?*

Williams: I really don't feel comfortable about getting into the specifics of any client's use of mock trials for a particular case, but I can tell you that I believe very strongly in the use of mock trials and exercises—the more the better. I find that they're invaluable for figuring out themes that can resonate, arguments that need better clarification, the types of jurors who are receptive to particular arguments, and a host of other things. You can test how a juror will respond to issues if they hear about particular evidence or if they don't. They are incredibly informative.

Nissly: Like Rambus, we can't get into the specifics, but in general we agree that using mock jury research, as well as qualified and competent jury consultants to assist in trial preparation, is invaluable in helping understand what evidence and themes are effective. I think they are most valuable when discovery is complete so that you can test all of the key pieces of evidence, informed by an understanding of what evidence is likely to actually be admitted at trial.

Price: Without going into the specifics of this case, I want to agree with Bart. Mock juries are extremely important. And it is crucial that those mocks begin early. My partner John Quinn likes to say that whichever side discovers what matters first wins the case. So we generally try to start doing presentations to mock juries while the case is still

in its early stages. Doing so is important in determining what our approach to the case, and to discovery and depositions should be, and, ultimately, how we should be preparing to present our defense at trial.

XVII. Lessons From a Long Trial

***Moderators**: Well we've talked about the fact that this was a long trial, five months in fact. There were three months of evidence and almost two months of jury deliberation. What are the lessons you learn from a long, complex business trial like this and how is that different from other trials?*

Williams: Well, rest is important. We didn't get a lot of that. My partner, Steve Perry was averaging about 3, 4 hours a night for most of those months. I think also there is a phenomenon in bigger trials, and I'm sure that Bill and Ken probably noticed the same thing, that many of the witnesses from large companies may not have had their depositions taken. There are lots of employees in these large companies who can tell the story. So you can spend years in discovery and take tons of depositions, yet the witnesses who actually testify at the trial are individuals whose depositions were not taken. It kind of takes you back to when I was a prosecutor, as was Bill, where you don't get depositions and have to cross-examine witnesses at trial without the benefit of their previous statements. That puts a premium on a trial team's ability to search document databases, Internet archives and other sources, and turn around excellent cross-examination outlines in short order.

Nissly: From Bart's description of the case, it will not shock you that Rambus called Mr. Tabrizi early on in their case as an adverse witness. He was the first "live" witness called at trial and he testified for four or five days in the beginning of the case (Rambus first called one witness by deposition video to begin its case). The lengthy examination of Mr. Tabrizi ended up being quite useful to us in that the jury heard early on about problems with RDRAM and the role of Intel, along with the points that Rambus was trying to make with Mr. Tabrizi.

Another thing I would add, following up on something that Bart said, is that in a long trial like this one, it takes a team of people in and out of the courtroom. By that I include the attorneys and other professionals who are doing a lot of the heavy lifting at night and over the weekends.

We also paid a lot of attention to the voices in the courtroom, making sure that we divided up the work load, people were prepared, and so forth. Over that long period of time, the jury gets tired of you and you get worn down; that's not a good thing.

Price: I think a key thing is that you just have to realize that people make up their minds quickly. It's hard to keep an open mind for that long, no matter how hard they try. So you need to kind of get them moving your way very early, particularly in a long trial. Most people start leaning one way or the other, and, when they do, they're going to see the evidence through that filter.

As a defendant in a long trial, my view is that you have to pretty much be even with the plaintiff in the first few weeks. To help you stay even with the plaintiff, one of the things that I've learned is to try to take longer on cross-examination and to repeat and reemphasize the defense themes, particularly during the first two weeks, so that at the

end of those weeks, you've still got a shot. The jury will have heard your themes, and perhaps started to lean your way.

That was really important here. Going into the case, we faced the possibility that we would look very bad out of the gate, and that would color the entire trial, given it would be more than a month before our case could start. So we sought to prevent Rambus from getting very much out of the gate, and we seized the opportunity to start to tell our story in the first weeks of trial. We tried to spend more time on cross-examination during the first two weeks, much to Judge McBride's displeasure, which is why he later put limits on us. But those later limits were fine, because by that time, the limits weren't as important—our themes were in the juror's minds, and we could present evidence to continue to build on those themes.

XVIII. Handling the Jury Deliberations and Verdict

***Moderators**: There were some eight weeks of jury deliberation. Occasionally the jurors asked questions through notes to the judge on whether they could take Wednesday off for somebody's medical appointment, for instance, or sometimes to rehear evidence or testimony. Eventually there is a verdict and Judge McBride called the lawyers who happened to be in the courtroom that day, some 8 weeks into the deliberations, to come into chambers. Can you just give us a quick summary of how this played out.*

Nissly: After that long period of time (nearly two months of deliberations), I was surprised when the note finally came back saying that they had a verdict. Originally the jury had been told they would be there until Thanksgiving, and we were a week or so ahead of Thanksgiving. We had all resigned ourselves to the idea that the jurors thought staying until Thanksgiving was some sort of obligation. The note came and the judge told us that we had a verdict. He previously had advised us that he would give us an hour or so to get everybody to the courthouse that we needed to have there when the verdict was read.

There was a tremendous amount of press interest in the case, with reporters sitting in the hallway most of the two months the jury was out, as well as a number of Rambus shareholders who follow Rambus in a very, very intense way. They were posting on the Internet in chat rooms and so forth. The Judge had said, look I'll give you folks an hour, so everybody get down here.

Then, I think it was one of Rambus' lawyers, Steve Perry, who asked the Judge if he would tell us the verdict before it was announced in open court. At first the Judge said no, he wouldn't do that, but he thought about it for a minute and said he would. An hour or so later when, of course, it was already all over the Internet that a verdict had been reached, the Judge called us into chambers, showed us the verdict, and let us take a look at it to make sure we didn't have any issues with it. But the Judge made us swear that we would not react in any way, shape or form, when we walked out of his chambers. We were sworn to have absolute stone faces because the Judge did not want the people in the gallery to know what the verdict was by looking at the lawyers' facial expressions. So we all followed the Judge's instructions and we all walked out absolutely stone-faced. The Judge read the verdict, and then there was pandemonium as the reporters sprinted toward the door to get the news out on the wire.

Price: I stayed in the courtroom for two weeks after the closings, and I left only because I had to go to another trial. My team that was in court took literally and seriously the judge's instructions not to let even a whisper of the result slip out early. So when they learned that the jury had found in our favor, they didn't even email me right away as to what the verdict was. I was sitting next to my computer waiting for an email because we had advance notice a verdict was going to be announced.

It took one of my colleagues coming into my office and saying, "We won!" And I said, "How do you know? I didn't get an email!" And she said, "I've been looking at the Rambus blogs." These blogs were the ones kept by the Rambus shareholders Ken mentioned. Every day over the whole period of the trial, there would be a group in the gallery or the hallway, reporting their perspective of the day's events on the Internet. And the blogs ended up being important because, unlike the lawyers, the bloggers weren't told they had to keep quiet. So they were sitting in the room as the verdict was announced, and they immediately posted it on the Internet, while our trial team was, of course, not emailing me. So I found out from the Rambus blogs about the results.

***Moderators**: Bart, you're a trial lawyer and you've won many trials. No one likes to lose at trial, but tell us how you found out about the verdict and what went through your mind.*

Williams: I was in Des Moines, Iowa, with a client when I heard. I stuck around the court for about four or five weeks waiting every day until I couldn't do it any longer. It was really one of the toughest moments I've ever had because I was literally with the General Counsel of a huge company looking at my Blackberry from time to time when I got the message. The General Counsel understandably wanted only my total focus on his problem, which was a very big problem, and so I excused myself and went to another conference room to absorb it.

Basically, it was very disappointing. I went back to my experience in sports, which is you win some and you lose some, and you have to just keep on moving. A lawyer who was a great mentor of mine, Ted Wells, who is at Paul Weiss and one of the best trial lawyers in the country, was following this trial. One of the first emails I got was from Ted saying, hey listen man, at least you're in the game, and you'll be in the game again, and you keep going. So it was a disappointing moment. The next thing I did was, as soon as I got back to my hotel in Des Moines, also going back to my days as an athlete, I wrote everybody on the defense team and congratulated them at length because it was, I think, it must have been a great moment for them. So that's how I reacted.

Price: I really appreciated that email.

Nissly: I did too. It was a very professional gesture.

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SAN FRANCISCO

RAMBUS INC., Plaintiff, v. MICRON TECHNOLOGY, INC., et al., Defendants.	Case No. CGC 04-431105 **JURY INSTRUCTIONS** Dept: 611 Judge: Hon. James J. McBride

Instruction No. 1
Duties of the Judge and Jury

Members of the jury, you have now heard all the evidence. It is my duty to instruct you on the law that applies to this case. You must follow these instructions as well as those that I previously gave you. You will have a copy of my instructions with you when you go to the jury room to deliberate.

You must decide what the facts are. You must consider all the evidence and then decide what you think happened. You must decide the facts based on the evidence admitted in this trial. Do not do any research on your own or as a group. Do not use dictionaries, the Internet, or other reference materials. Do not investigate the case or conduct any experiments. Do not contact anyone to assist you, such as a family accountant or lawyer. All jurors must see or hear the same evidence at the same time. Do not read, listen to, or watch any news accounts of this trial. You must not let bias, sympathy, prejudice, or public opinion influence your decision.

I will now tell you the law that you must follow to reach your verdict. You must follow the law exactly as I give it to you, even if you disagree with it. If the attorneys have said anything different about what the law means, you must follow what I say.

In reaching your verdict, do not guess what I think your verdict should be from something I may have said or done.

Pay careful attention to all the instructions that I give you. All the instructions are important because together they state the law that you will use in this case. You must consider all of the instructions together.

After you have decided what the facts are, you may find that some instructions do not apply. In that case, follow the instructions that do apply and use them together with the facts to reach your verdict.

If I repeat any ideas or rules of law during my instructions, that does not mean that these ideas or rules are more important than the others are. In addition, the order in which the instructions are given does not make any difference.

Instruction No. 2
Evidence

Sworn testimony, documents, or anything else may be admitted into evidence. You must decide what the facts are in this case from the evidence you have seen or heard during the trial, including any exhibits that I admitted into evidence. You may not consider as evidence anything that you saw or heard when court was not in session, even something done or said by one of the parties, attorneys, or witnesses.

What the attorneys say during the trial is not evidence. In their opening statements and closing arguments, the attorneys talk to you about the law and the evidence. What the lawyers say may help you understand the law and the evidence, but their statements and arguments are not evidence.

The attorneys' questions are not evidence. Only the witnesses' answers are evidence. You should not think that something is true just because an attorney's question suggested that it was true. However, the attorneys for both sides have agreed that certain facts are true. This agreement is called a stipulation. No other proof is needed and you must accept those facts as true in this trial.

Each side had the right to object to evidence offered by the other side. If I sustained an objection to a question, you must ignore the question. If the witness did not answer, you must not guess what he or she might have said or why I sustained the objection. If the witness already answered, you must ignore the answer.

During the trial I granted a motion to strike testimony that you heard. You must totally disregard that testimony. You must treat it as though it did not exist.

Instruction No. 3
Witnesses

A witness is a person who has knowledge related to this case. You will have to decide whether you believe each witness and how important each witness's testimony is to the case. You may believe all, part, or none of a witness's testimony.

In deciding whether to believe a witness's testimony, you may consider, among other factors, the following:

(a) How well did the witness see, hear, or otherwise sense what he or she described in court?

(b) How well did the witness remember and describe what happened?

(c) How did the witness look, act, and speak while testifying?

(d) Did the witness have any reason to say something that was not true? Did the witness show any bias or prejudice? Did the witness have a personal relationship with any of the parties involved in the case? Does the witness have a personal stake in how this case is decided?

(e) What was the witness's attitude toward this case or about giving testimony?

Sometimes a witness may say something that is not consistent with something else he or she said. Sometimes different witnesses will give different versions of what happened. People often forget things or make mistakes in what they remember. Also, two people may see the same event but remember it differently. You may consider these differences, but do not decide that testimony is untrue just because it differs from other testimony.

However, if you decide that a witness deliberately testified untruthfully about something important, you may choose not to believe anything that witness said. On the other hand, if you think the witness testified untruthfully about some things but told the truth about others, you may accept the part you think is true and ignore the rest.

Do not make any decision simply because there were more witnesses on one side than on the other. If you believe it is true, the testimony of a single witness is enough to prove a fact.

You must not be biased in favor of or against any witness because of his or her disability, gender, race, religion, ethnicity, sexual orientation, age, national origin, or socioeconomic status.

Instruction No. 4
Multiple Parties

The plaintiff in this trial is Rambus.

The defendants in this trial are Micron and Hynix. You should decide the case against each defendant separately as if it were a separate lawsuit. Each defendant is entitled to separate consideration of its own defenses. Unless I tell you otherwise, all instructions apply to each defendant.

Instruction No. 5
Nonperson Parties

All parties in this lawsuit are corporations. Each is entitled to the same fair and impartial treatment that you would give to an individual. You must decide this case with the same fairness that you would use if you were deciding the case between individuals.

When I use words like "person" or "he" or "she" in these instructions to refer to a party, those instructions apply to each corporation.

Instruction No. 6
Duty To Abide by Translation Provided in Court

Some deposition testimony was given in Korean. An interpreter provided translation for you at the time that the deposition testimony was given. You must rely solely on the translation provided by the interpreter, even if you understood the language spoken by the witness. Do not retranslate any testimony for other jurors.

Instruction No. 7
Obligation To Prove – More Likely True Than Not True

A party must persuade you, by the evidence presented in court, that what he or she is required to prove is more likely to be true than not true. This is referred to as "the burden of proof."

After weighing all of the evidence, if you cannot decide that something is more likely to be true than not true, you must conclude that the party did not prove it. You should consider all the evidence, no matter which party produced the evidence.

In criminal trials, the prosecution must prove that the defendant is guilty beyond a reasonable doubt. But in civil trials, such as this one, the party who is required to prove something need prove only that it is more likely to be true than not true.

Instruction No. 8
Direct and Indirect Evidence

Evidence can come in many forms. It can be testimony about what someone saw or heard or smelled. It can be an exhibit admitted into evidence. It can be someone's opinion.

Some evidence proves a fact directly, such as testimony of a witness who saw a jet plane flying across the sky. Some evidence proves a fact indirectly, such as testimony of a witness who saw only the white trail that jet planes often leave. This indirect evidence is sometimes referred to as "circumstantial evidence." In either instance, the witness's testimony is evidence that a jet plane flew across the sky.

As far as the law is concerned, it makes no difference whether evidence is direct or indirect. You may choose to believe or disbelieve either kind of evidence. Whether it is direct or indirect, you should give every piece of evidence whatever weight you think it deserves.

Instruction No. 9
Party Having Power To Produce Better Evidence

You may consider the ability of each party to provide evidence. If a party provided weaker evidence when it could have provided stronger evidence, you may distrust the weaker evidence.

Instruction No. 10
Failure To Explain or Deny Evidence

You may consider whether a party failed to explain or deny some unfavorable evidence. Failure to explain or to deny unfavorable evidence may suggest that the evidence is true.

Instruction No. 11
Evidence Admitted for Limited Purpose

During the trial, I explained to you that certain evidence was admitted for a limited purpose. You may consider that evidence only for the limited purpose that I described, and not for any other purpose.

Instruction No. 12
Evidence Applicable to One Party

During the trial, I explained that certain evidence could be considered as to only one party. You may not consider that evidence as to any other party.

During the trial, I explained that certain evidence could be considered as to one or more parties but not to every party. You may not consider that evidence as to any other party.

Instruction No. 13
Statements by Alleged Co-Conspirators

If you find the existence of a conspiracy, evidence of a statement made by one alleged conspirator may be considered by you against another alleged conspirator if you determine by a preponderance of the evidence:

1. that the statement was made at a time when the person making the statement was participating in the conspiracy;

2. that the statement was made in furtherance of the objectives of the conspiracy; and

3. that the statement was made before or during the time when the party against whom it is offered was participating in the conspiracy.

Instruction No. 14
Special Instruction No. 1

On May 11, 2005, Hynix Semiconductor, Inc. ("Hynix") pleaded guilty in the United States District Court for the Northern District of California to the felony of participating in a conspiracy in the United States and elsewhere to suppress and eliminate competition by fixing the prices of Dynamic Random Access Memory ("DRAM") to be sold to certain original equipment manufacturers of personal computers and servers ("OEMs") from on or about April 1, 1999, to on or about June 15, 2002, in violation of the Sherman Antitrust Act, 15 U.S.C. Section 1.

The definition of "DRAM" for purposes of Hynix's plea was as follows: "DRAM" means dynamic random access memory semiconductor devices and modules, including synchronous dynamic random access memory ("SDRAM") and double data rate dynamic random access memory ("DDR") semiconductor devices and modules, but not Rambus dynamic random access memory ("RDRAM") semiconductor devices and modules.

In pleading guilty, Hynix admitted the following facts:

The "relevant period" is that period from on or about April 1, 1999, to on or about June 15, 2002. During the relevant period, Hynix was a corporation organized and existing under the laws of Korea. Hynix has its headquarters and principal place of business in Ichon, Korea. From April 1, 1999, to approximately March 2001, Hynix did business as Hyundai Electronics Industries Co., Ltd., a corporation organized and existing under the laws of Korea. In approximately October 1999, Hynix acquired LG Semiconductor Co., Ltd., a corporation organized and existing under the laws of Korea.

DRAM is the most commonly used semiconductor memory product. DRAM provides high-speed storage and retrieval of electronic information in personal computers, servers, and other devices. During the relevant period, Hynix was a producer of DRAM and was engaged in the sale of DRAM in the United States and elsewhere. During the relevant period, Hynix's DRAM sales, directly affected by the conspiracy, to OEMs in the United States totaled $839 million.

During at least certain periods of time during the relevant period, Hynix, through certain officers and employees, participated in a conspiracy in the United States and elsewhere among certain DRAM producers, the primary purpose of which was to fix the price of DRAM sold to certain OEMs. The conspiracy directly affected these OEMs in the United States: Dell Inc., Hewlett-Packard Company, Compaq Computer Corporation, International Business Machines Corporation, Apple Computer Inc., and Gateway, Inc. In furtherance of the conspiracy, Hynix, through certain officers and employees, engaged in discussions and attended meetings with representatives of certain other DRAM producers and sellers. During these discussions and meetings, agreements were reached to fix the price of DRAM to be sold to certain OEMs.

At certain times during the relevant period, DRAM prices decreased significantly. Nevertheless, Hynix and its co-conspirators reached agreements to limit the rate of price declines, which were achieved with varying levels of effectiveness. At other periods, Hynix and its co-conspirators reached agreements on price increases and were able to institute price increases on DRAM sales to certain OEMs.

During the relevant period, DRAM sold by one or more of the conspirator firms, and equipment and supplies necessary to the sale of DRAM, as well as payments for DRAM, traveled in interstate and foreign commerce. The business activities of Hynix and its co-conspirators in connection with the sale of DRAM affected by this conspiracy were within the flow of, and substantially affected, interstate and foreign trade and commerce.

Acts in furtherance of this conspiracy were carried out within the Northern District of California. DRAM affected by this conspiracy was sold by one or more of the conspirators to OEMs in this District.

Instruction No. 15
Limited Use of Hynix Plea Evidence

Evidence has been introduced for the purpose of showing that Hynix and certain Hynix executives and employees pled guilty to the felony of participating in a criminal conspiracy to fix the price of certain DRAM products and for the purpose of showing the truth of the facts admitted in the guilty pleas. This evidence may not be considered by you to prove that the individuals or Hynix have a bad character or a disposition to commit crimes. It may be considered by you for the limited purpose of determining if it tends to show any of the following, and that's for you to judge:

That the conduct admitted in the guilty pleas and the conduct alleged by Rambus in this lawsuit were part of a common plan, scheme, or conspiracy;

That the individuals or Hynix had the opportunity to engage in the conduct alleged by Rambus;

That the individuals or Hynix had the means or ability to engage in the conduct alleged by Rambus; or

That the individuals or Hynix had a motive for the commission of the conduct alleged by Rambus.

For the limited purposes for which you may consider this evidence, you must weigh it in the same manner as you do all the other evidence in this case.

You may not consider evidence of these pleas as to Micron.

Instruction No. 16
Limited Use of Samsung Plea Evidence

Evidence has been introduced for the purpose of showing that Samsung and one Samsung employee pled guilty to the felony of participating in a criminal conspiracy to fix the price of DRAM products. This evidence may not be considered for the purpose of showing the truth of the facts admitted in the guilty pleas. This evidence may not be considered by you to prove that the individual or Samsung have a bad character or a disposition to commit crimes. It may be considered by you for the limited purpose of determining if it tends to show any of the following, and that's for you to judge:

That the conduct admitted in the guilty pleas and the conduct alleged by Rambus in this lawsuit were part of a common plan, scheme, or conspiracy;

That the individual or Samsung had the opportunity to engage in the conduct alleged by Rambus;

That the individual or Samsung had the means or ability to engage in the conduct alleged by Rambus; or

That the individual or Samsung had a motive for the commission of the conduct alleged by Rambus.

For the limited purposes for which you may consider this evidence, you must weigh it in the same manner as you do all the other evidence in this case.

Instruction No. 17
Penalty or Punishment Irrelevant

You have heard evidence about criminal convictions for violation of federal antitrust laws. You should not speculate about what penalty or punishment may have been assessed for these convictions. It is irrelevant to your decision.

Instruction No. 18
Partial or Redacted Exhibits

Some of the exhibits admitted into evidence have been redacted, that is, copied with parts of a page blocked out, or provided to you without including all pages. The portions provided to you are what has been admitted into evidence. You are not to speculate about what is contained in the portions not provided.

Instruction No. 19
Privilege and Green Binder Issues

People have a right not to disclose what they told their attorney in confidence. This is called the attorney-client privilege.

During this trial you may have heard reference to witnesses exercising this privilege. You are not to infer anything one way or another from a statement that a witness exercised the privilege.

During this trial there have been many references to the Green Binder. I remind you that the Green Binder is a shorthand way of referring to orders made before this trial.

Instruction No. 20
Deposition as Substantive Evidence

During the trial, you heard testimony shown on video or read from depositions. A deposition is the testimony of a person taken before trial. At a deposition the person is sworn to tell the truth and is questioned by the attorneys. You must consider the deposition testimony that was read to you or you were shown on video in the same way as you consider testimony given in court.

Instruction No. 21
Demonstrative Exhibits

During the trial, demonstrative exhibits have been used with a number of witnesses. These demonstrative exhibits were used to help illustrate the testimony of the witnesses who used them. However, unlike the testimony of the witnesses who referred to the demonstrative exhibits, the demonstrative exhibits themselves are not evidence. Also, unlike the actual exhibits which I admitted into evidence, most of the demonstrative exhibits will not be available to you in the jury deliberation room. However, I have decided to allow some of the demonstrative exhibits to be available to you in the jury deliberation room. These demonstrative exhibits will be in a binder clearly labeled "Demonstrative Exhibits."

Instruction No. 22
Statements of a Party Opponent

A party may offer into evidence any oral or written statement made by an opposing party outside the courtroom.

When you evaluate evidence of such a statement, you must consider these questions:

1. Do you believe that the party actually made the statement? If you do not believe that the party made the statement, you may not consider the statement at all.

2. If you believe that the statement was made, do you believe it was reported accurately?

You should view testimony about an oral statement made by a party outside the courtroom with caution.

Instruction No. 23
Expert Witness Testimony

During the trial you heard testimony from expert witnesses. The law allows an expert to state opinions about matters in his or her field of expertise even if he or she has not witnessed any of the events involved in the trial.

You do not have to accept an expert's opinion. As with any other witness, it is up to you to decide whether you believe the expert's testimony and choose to use it as a basis for your decision. You may believe all, part, or none of an expert's testimony. In deciding whether to believe an expert's testimony, you should consider:

a. The expert's training and experience;

b. The facts the expert relied on; and

c. The reasons for the expert's opinion.

Instruction No. 24
Experts – Questions Containing Assumed Facts

The law allows expert witnesses to be asked questions that are based on assumed facts. These are sometimes called "hypothetical questions."

In determining the weight to give to the expert's opinion that is based on the assumed facts, you should consider whether the assumed facts are true.

Instruction No. 25
Conflicting Expert Testimony

If the expert witnesses disagreed with one another, you should weigh each opinion against the others. You should examine the reasons given for each opinion and the facts or other matters that each witness relied on. You may also compare the experts' qualifications.

Instruction No. 26
Opinion Testimony of Lay Witness

Witnesses who were not testifying as experts gave opinions during the trial. You may, but are not required to, accept those opinions. You may give the opinions whatever weight you think is appropriate.

Consider the extent of the witness's opportunity to perceive the matters on which the opinion is based, the reasons the witness gave for the opinion, and the facts or information on which the witness relied in forming that opinion. You must decide whether information on which the witness relied was true and accurate. You may disregard all or any part of an opinion that you find unbelievable, unreasonable, or unsupported by the evidence.

Instruction No. 27
Cartwright Act – Essential Elements

Rambus claims Micron and Hynix agreed with each other and/or with Samsung and/or Infineon to prevent RDRAM from becoming the standard for computer memory. Rambus claims that as part of their agreement, Micron and Hynix agreed with each other and/or with Samsung and/or Infineon to fix RDRAM prices high and DDR prices low. "Price fixing" is an agreement to set, raise, lower, maintain, or stabilize the prices charged or to be charged for a product. Rambus also claims that as part of their agreement, Micron and Hynix agreed with each other and/or with Samsung and/or Infineon not to sell RDRAM in quantities sufficient to allow RDRAM to become the standard for computer memory.

To establish this claim, Rambus must prove all of the following:

1. That Micron and/or Hynix conspired with each other and/or with Samsung and/or Infineon to fix RDRAM prices high and DDR prices low and/or restrict RDRAM output in order to prevent RDRAM from becoming the standard for computer memory;
2. That the purpose or effect of the conduct of those companies was to restrain competition;
3. That the anticompetitive effect of the restraint outweighed any beneficial effect on competition;
4. That Rambus was harmed; and
5. That the anticompetitive conduct of those companies was a substantial factor in causing Rambus's harm.

Instruction No. 28
Substantial Factor

A substantial factor in causing harm is a factor that a reasonable person would consider to have contributed to the harm. It must be more than a remote or trivial factor. It does not have to be the only cause of the harm.

Conduct is not a substantial factor in causing harm if the same harm would have occurred without that conduct.

Instruction No. 29
"Conspiracy" Explained

A conspiracy is an agreement with an unlawful purpose. An agreement exists if two or more persons or companies combine or join together for a common purpose. Such an agreement can be made orally or in writing or may be implied by the conduct of the parties. No written document or specific understanding is necessary for an agreement to exist. For Micron and/or Hynix to be part of an agreement, they must have known they were joining in an agreement, even if they were not aware of all of its aspects.

Mere knowledge of a wrongful act without cooperation or an agreement to cooperate is insufficient to make Micron or Hynix responsible for the harm. If you decide that Micron and/or Hynix joined a conspiracy then that defendant is responsible for all acts done as part of the conspiracy, whether the acts occurred before or after that defendant joined the conspiracy.

To prove the existence of an agreement, Rambus must show more than a similarity between conduct of Micron and/or Hynix and the conduct of others. Independent business judgment in response to market forces sometimes leads competitors to act in a similar way because of their individual self-interests. That conduct alone is not enough to prove an agreement. However, similar behavior, along with other evidence suggesting joint conduct, may be used to decide whether there was an agreement.

In deciding whether conduct of Micron and/or Hynix was the result of an agreement, you may consider, among other factors, the following:

(a) The nature of the conduct;

(b) The relationship between the parties;

(c) Whether the conduct was contrary to the best interests of some of the persons or companies in question;

(d) Whether the conduct lacked a legitimate business purpose; and

(e) Whether the conduct occurred following communications concerning the subject of the conduct.

Instruction No. 30
Exchange of Price Information

The exchange of price information among competitors is not illegal unless it is part of an agreement to fix prices.

Instruction No. 31
Anticompetitive Versus Beneficial Effects

In deciding whether the challenged restraint had an anticompetitive or beneficial purpose or effect on competition, you should consider the results the restraint was intended to achieve or actually did achieve. In balancing these purposes or effects, you also may consider, among other factors, the following:

(a) The nature of the restraint;

(b) The probable effect of the restraint on the business involved;

(c) The reasonableness of the stated purpose for the restraint;

(d) The availability of less restrictive means to accomplish the stated purpose;

(e) The portion of the market affected by the restraint; and

(f) The extent of the conspirators' market power.

Instruction No. 32
"Market Power" Explained

Market power is the ability to increase prices or reduce output without losing market share. The higher a seller's market share, the more likely it has market power.

In deciding whether a seller or group of sellers has market power, you should consider how difficult it is for a potential competitor to successfully enter the market. The more difficult it is to successfully enter a market, the more likely a seller or group of sellers has market power within that market. Market power is less likely to exist if it is not difficult for potential competitors to enter a market successfully.

Each market has two components: a product market and a geographic market.

Instruction No. 33
"Product Market" Explained

Rambus claims that the product market is DRAM interface technology.

To define the product market, you must determine which products are in the market in which the alleged conspirators are claimed to have carried out their restraint of trade.

A product market consists of all products that can reasonably be used for the same purpose. Products are not in the same product market if users are not likely to substitute one for the other.

In deciding whether products are reasonable substitutes, you may consider whether a small increase in the price of one product would cause a considerable number of customers of that product to switch to a second product. If so, these two products are likely to be in the same market. If a significant increase in the price of one product does not cause a significant number of consumers to switch to a second product, these products are not likely to be in the same market.

Instruction No. 34
"Geographic Market" Explained

Rambus claims that the relevant geographic market is worldwide.

A geographic market is the area where buyers turn for alternate sources of supply or where sellers normally sell. The geographic market may or may not be the same as the area where the parties in this case currently compete or do business. It may be smaller or larger than that area.

A geographic market may be limited to the area where a product can be shipped and sold profitably. You may consider whether purchasing patterns are so different in the two areas that products sold in one area tend not to be sold in another. For example, this might occur if the cost of transporting a product into or out of the claimed geographic market is large compared to the value of the product.

In deciding whether products are in the same geographic market, you may consider whether a small increase in the price of the product in one area would cause a considerable number of customers in that area to buy the product in another area. If so, these two areas are likely to be in the same geographic market. If a significant increase in the price in one area does not cause a significant number of consumers to buy the product in another area, these areas are not likely to be in the same geographic market.

Instruction No. 35
Intentional Interference With Prospective Economic Relations – Essential Elements

Rambus claims that Micron and/or Hynix conspired with each other and/or with Samsung and/or Infineon to intentionally interfere with an economic relationship between Rambus and Intel that probably would have resulted in an economic benefit to Rambus. To establish this claim, Rambus must prove all of the following:

1. That Rambus was in an economic relationship with Intel that probably would have resulted in an economic benefit to Rambus;

2. That Micron and/or Hynix conspired with each other and/or Infineon and/or Samsung to intentionally interfere with the economic relationship between Rambus and Intel;

3. That those companies knew of that relationship;

4. That those companies intended to disrupt that relationship;

5. That those companies disrupted that relationship by engaging in wrongful conduct in violation of California's Cartwright Act as explained previously;

6. That the relationship was disrupted;

7. That Rambus was harmed; and

8. That those companies' wrongful conduct was a substantial factor in causing Rambus's harm.

Instruction No. 36
Intent

In deciding whether Micron and/or Hynix acted intentionally, you may consider whether they knew that a disruption was substantially certain to result from their conduct.

Instruction No. 37
No Interference With Own Contract

A contracting party cannot be held liable for conspiracy to interfere with its own contract.

Instruction No. 38
Statute of Limitations – Intentional Interference

Defendants contend that Rambus's claim for intentional interference with prospective economic relations was not filed within the time set by law. In order for Rambus's claim to be timely, Rambus must prove that (1) the primary objective of the conspiracy to intentionally interfere with Rambus's prospective economic relations was not completed before May 5, 2002, and (2) a conspirator committed one or more overt acts in the furtherance of the conspiracy on or after May 5, 2002.

Instruction No. 39
Damages

If you decide that Rambus has proved its claim against Micron and/or Hynix, you also must decide how much money will reasonably compensate Rambus for the harm. This compensation is called "damages."

The amount of damages must include an award for each item of harm that was caused by the conspirators' wrongful conduct, even if the particular harm could not have been anticipated.

Rambus does not have to prove the exact amount of damages that will provide reasonable compensation for the harm. However, you must not speculate or guess in awarding damages.

The following are the specific items of damages claimed by Rambus.

(1) Loss of profits from royalty payments that would have been paid to Rambus by RDRAM manufacturers if RDRAM had become the memory standard; and

(2) Loss of profits from royalty payments that would have been paid to Rambus by RDRAM controller manufacturers if RDRAM had become the memory standard.

Instruction No. 40
Lost Profits

To recover damages for lost profits, Rambus must prove it is reasonably certain it would have earned profits but for the wrongful conduct.

To decide the amount of damages for lost profits, you must determine the gross amount Rambus would have received but for the wrongful conduct and then subtract from that amount the expenses Rambus would have had if the wrongful conduct had not occurred.

The amount of the lost profits need not be calculated with mathematical precision, but there must be a reasonable basis for computing the loss.

Instruction No. 41
Limitation on Damages

The law places limitations on a plaintiff's ability to go too far back in time in recovering damages.

For that reason, in this case, Rambus can recover damages only for acts committed after May 4, 2000 that were a substantial factor in causing harm to Rambus after May 4, 2000.

You may consider evidence of conduct occurring prior to May 4, 2000 for other purposes, such as determining whether a conspiracy existed as of May 4, 2000.

Instruction No. 42
Multiple Legal Theories

Rambus seeks damages from Defendants under two legal theories. You should consider Rambus's claim separately under each theory, including damages, as if the other theory does not exist.

The Court will make sure the damages, if any, are not double-counted.

Instruction No. 43
Punitive Damages

If you decide that Micron and/or Hynix's conduct caused Rambus harm, you must decide whether that conduct justifies an award of punitive damages. The purposes of punitive damages are to punish a wrongdoer for the conduct that harmed Rambus and to discourage similar conduct in the future.

You may award punitive damages against a defendant only if Rambus proves that the defendant engaged in that conduct with malice, oppression, or fraud. To do this, Rambus must prove one of the following by clear and convincing evidence:

1. That the conduct constituting malice, oppression, or fraud was committed by one or more officers, directors, or managing agents of the defendant, who acted on its behalf;

2. That the conduct constituting malice, oppression, or fraud was authorized by one or more officers, directors, or managing agents of the defendant; or

3. That one or more officers, directors, or managing agents of the defendant knew of the conduct constituting malice, oppression, or fraud and adopted or approved that conduct after it occurred.

"Malice" means that the defendant acted with intent to cause injury or that the defendant's conduct was despicable and was done with a willful and knowing disregard of the rights or safety of another. A person acts with knowing disregard when he or she is aware of the probable dangerous consequences of his or her conduct and deliberately fails to avoid those consequences.

"Oppression" means that the defendant's conduct was despicable and subjected Rambus to cruel and unjust hardship in knowing disregard of its rights.

"Despicable conduct" is conduct that is so vile, base, or contemptible that it would be looked down on and despised by reasonable people.

"Fraud" means that the defendant intentionally misrepresented or concealed a material fact and did so intending to harm Rambus.

An employee is a "managing agent" if he or she exercises substantial independent authority and judgment in his or her corporate decision making such that his or her decisions ultimately determine corporate policy.

There is no fixed formula for determining the amount of punitive damages, and you are not required to award any punitive damages. If you decide to award punitive damages, you should consider all of the following in determining the amount:

(a) How reprehensible was the defendant's conduct? In deciding how reprehensible the defendant's conduct was, you may consider, among other factors:

1. Whether the conduct caused physical harm;

2. Whether the defendant disregarded the health or safety of others;

3. Whether Rambus was financially weak or vulnerable and the defendant knew Rambus was financially weak or vulnerable and took advantage of it;

4. Whether the defendant's conduct involved a pattern or practice; and

5. Whether the defendant acted with trickery or deceit.

(b) Is there a reasonable relationship between the amount of punitive damages and Rambus's harm?

(c) In view of the defendant's financial condition, what amount is necessary to punish it and discourage future wrongful conduct? You may not increase the punitive award above an amount that is otherwise appropriate merely because the defendant has substantial financial resources. Any award you impose may not exceed the defendant's ability to pay.

Punitive damages may not be used to punish Defendants for the impact of their alleged misconduct on persons other than Rambus.

Instruction No. 44
Punitive Damages – Clear and Convincing Evidence Required

Punitive damages must be proved by clear and convincing evidence, which is a higher burden of proof than preponderance of the evidence. This means the party must persuade you that it is highly probable that the fact is true.

Instruction No. 45
Arguments of Counsel Not Evidence of Damages

The arguments of the attorneys are not evidence of damages. Your award must be based on your reasoned judgment applied to the testimony of the witnesses and the other evidence that has been admitted during trial.

Instruction No. 46
Jurors Not To Consider Attorney Fees and Court Costs

You must not consider, or include as part of any award, attorney fees or expenses that the parties incurred in bringing or defending this lawsuit.

Instruction No. 47
Predeliberation Instructions

When you go to the jury room, the first thing you should do is choose a presiding juror. The presiding juror should see to it that your discussions are orderly and that everyone has a fair chance to be heard.

It is your duty to talk with one another in the jury room and to consider the views of all the jurors. Each of you must decide the case for yourself, but only after you have considered the evidence with the other members of the jury. Feel free to change your mind if you are convinced that your position should be different. You should all try to agree. But do not give up your honest beliefs just because the others think differently.

Please do not state your opinions too strongly at the beginning of your deliberations. Also, do not immediately announce how you plan to vote. Keep an open mind so that you and your fellow jurors can easily share ideas about the case.

You should use your common sense, but do not use or consider any special training or unique personal experience that any of you have in matters involved in this case. Your training or experience is not a part of the evidence received in this case.

Sometimes jurors disagree or have questions about the evidence or about what the witnesses said in their testimony. If that happens, you may ask to have testimony read back to you or ask to see any exhibits admitted into evidence that have not already been provided to you. Also, jurors may need further explanation about the laws that apply to the case. If this happens during your discussions, write down your questions and give them to the bailiff. I will do my best to answer them. When you write me a note, do not tell me how you voted on an issue until I ask for this information in open court.

Your decision must be based on your personal evaluation of the evidence presented in the case. Each of you may be asked in open court how you voted on each question.

While I know you would not do this, I am required to advise you that you must not base your decision on chance, such as a flip of a coin. If you decide to award damages, you may not

agree in advance to simply add up the amounts each juror thinks is right and then make the average your verdict.

You may take breaks, but do not discuss this case with anyone, including each other, until all of you are back in the jury room.

Instruction No. 48
Taking Notes During the Trial

If you have taken notes during the trial, you may take your notebooks with you into the jury room.

You may use your notes only to help you remember what happened during the trial. Your independent recollection of the evidence should govern your verdict. You should not allow yourself to be influenced by the notes of other jurors if those notes differ from what you remember.

At the end of the trial, your notes will be collected and destroyed.

Instruction No. 49
Reading Back of Trial Testimony in the Jury Room

You may request in writing that trial testimony be read to you. I will have the court reporter read the testimony to you. You may request that all or a part of a witness's testimony be read.

Your request should be as specific as possible. It will be helpful if you can state:

1. The name of the witness;
2. The subject of the testimony you would like to have read; and
3. The name of the attorney or attorneys asking the questions when the testimony was given.

The court reporter is not permitted to talk with you when she or he is reading the testimony you have requested.

While the court reporter is reading the testimony, you may not deliberate or discuss the case.

You may not ask the court reporter to read testimony that was not specifically mentioned in a written request. If your notes differ from the testimony, you must accept the court reporter's record as accurate.

Instruction No. 50
Introduction to Verdict Form

I will give you a verdict form with questions you must answer. I have already instructed you on the law that you are to use in answering these questions. You must follow my instructions and the form carefully. You must consider each question separately. Please answer the questions in the order they appear. After you answer a question, the form tells you what to do next. At least nine of you must agree on an answer before you can move on to the next question. However, the same nine or more people do not have to agree on each answer.

When you are finished filling out the form, your presiding juror must write the date and sign it at the bottom. Return the form to the clerk when you have finished.

Instruction No. 51
Instruction to Alternate Jurors

As alternate jurors, you are bound by the same rules that govern the conduct of the jurors who are sitting on the panel. You should not form or express any opinion about this case until after you have been substituted in for one of the deliberating jurors on the panel or until the jury has been discharged.

Instruction No. 52
Polling the Jury

After your verdict is read in open court, you may be asked individually to indicate whether the verdict expresses your personal vote. This is referred to as "polling" the jury and is done to ensure that at least nine jurors have agreed to each decision.

The verdict form that you will receive asks you to answer several questions. You must vote separately on each question. Although nine or more jurors must agree on each answer, it does not have to be the same nine for each answer. Therefore, it is important for each of you to remember how you have voted on each question so that if the jury is polled, each of you will be able to answer accurately about how you voted.

Each of you will be provided a draft copy of the verdict form for your use in keeping track of your votes.

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF SAN FRANCISCO

RAMBUS INC.,	CASE NO. CGC 04-431105
Plaintiff,	**VERDICT FORM**
v.	Department: 611 Judge: Hon. James J. McBride
MICRON TECHNOLOGY, INC., et al.,	
Defendants.	

We answer the questions submitted to us as follows:

Rambus's Claim for Violation of Cartwright Act

1. Did Micron and/or Hynix agree with each other and/or Infineon and/or Samsung to fix RDRAM prices high and DDR prices low and/or restrict RDRAM output in order to prevent RDRAM from becoming the standard for computer memory?

YES _____ NO ✓

If you answered "YES" to this question, continue to question 2.

If you answered "NO" to this question, go to question 16; do not answer questions 2-15.

2. Which of those companies agreed to fix RDRAM prices high and DDR prices low and/or restrict RDRAM output in order to prevent RDRAM from becoming the standard for computer memory?

Micron _____

Hynix _____

Infineon _____

Samsung _____

Continue to question 3.

For purposes of the following questions regarding Rambus's claim for a violation of the Cartwright Act (questions 3-15), "those companies" refers to the companies identified in your answer to question 2.

3. Were acts of those companies in furtherance of the agreement identified in question 1 a substantial factor in preventing RDRAM from becoming the standard for computer memory?

YES _____ NO _____

If you answered "YES" to this question, continue to question 4.

If you answered "NO" to this question, go to question 16; do not answer questions 4-15.

4. Was the purpose or effect of the agreed-upon conduct of those companies to restrain competition?

YES _____ NO _____

If you answered "YES" to this question, continue to question 5.

If you answered "NO" to this question, go to question 16; do not answer questions 5-15.

5. Has Rambus proved that the relevant product market is DRAM interface technology?

YES _____ NO _____

If you answered "YES" to this question, go to question 8; do not answer questions 6-7.

If you answered "NO" to this question, continue to question 6.

6. Has Rambus proved a relevant product market?

YES _____ NO _____

If you answered "YES" to this question, continue to question 7.

If you answered "NO" to this question, go to question 16; do not answer questions 7-15.

7. What is the relevant product market?

_____

Continue to question 8.

8. Has Rambus proved that the relevant geographic market is worldwide?

YES _____ NO _____

If you answered "YES" to this question, go to question 11; do not answer questions 9-10.

If you answered "NO" to this question, continue to question 9.

9. Has Rambus proved a relevant geographic market?

YES _____ NO _____

If you answered "YES" to this question, continue to question 10.

If you answered "NO" to this question, go to question 16; do not answer questions 10-15.

10. What is the relevant geographic market?

_____

Continue to question 11.

11. Did the anticompetitive effect of the restraint outweigh any beneficial effect on competition?

YES _____ NO _____

If you answered "YES" to this question, continue to question 12.

If you answered "NO" to this question, go to question 16; do not answer questions 12-15.

12. For what year(s) would RDRAM have become the standard for computer memory in the absence of the conduct identified in question 1?

_____

Continue to question 13.

13. Was anticompetitive conduct of those companies a substantial factor in preventing RDRAM from becoming the standard for any of the following industry segments?

Performance Desktops	YES _____	NO _____
Mainstream Desktops	YES _____	NO _____
Value Desktops	YES _____	NO _____
Notebooks/Laptops	YES _____	NO _____
Servers	YES _____	NO _____
Workstations	YES _____	NO _____

Upgrade Modules	YES ____	NO ____
Gaming/Graphics	YES ____	NO ____
Digital TV/DVD/DVR/Set-Top-Box	YES ____	NO ____
Mobile Phones	YES ____	NO ____
Industrial Electronics/Data Processing	YES ____	NO ____
Other Consumer/Business	YES ____	NO ____

Continue to question 14.

14. Was anticompetitive conduct committed by those companies after May 4, 2000 a substantial factor in causing RDRAM's failure to become the standard for computer memory?

YES ____ NO ____

If you answered "YES" to this question, continue to question 15.

If you answered "NO" to this question, go to question 16; do not answer question 15.

15. What damages, if any, did Rambus incur from anticompetitive conduct of those companies occurring after May 4, 2000?

$ _____

Continue to question 16.

Rambus's Claim for Conspiracy To Intentionally Interfere with Prospective Economic Relations

16. Did Micron and/or Hynix conspire with each other and/or Infineon and/or Samsung to disrupt an economic relationship between Rambus and Intel?

YES _____ NO ✓

If you answered "YES" to this question, continue to question 17.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 17-31.

17. Which of those companies agreed to disrupt that relationship?

Micron _____

Hynix _____

Infineon _____

Samsung _____

Continue to question 18.

For purposes of the following questions regarding Rambus's claim for conspiracy to intentionally interfere with prospective economic relations (questions 18-27), "those companies" refers to the companies identified in your answer to question 17.

18. Did those companies disrupt that relationship by engaging in wrongful conduct through a violation of the Cartwright Act?

YES _____ NO _____

If you answered "YES" to this question, continue to question 19.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 19-31.

19. Did those companies know of that relationship?

YES _____ NO _____

If you answered "YES" to this question, continue to question 20.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 20-31.

20. Did those companies intend to disrupt that relationship?

YES _____ NO _____

If you answered "YES" to this question, continue to question 21.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 21-31.

21. Would that relationship probably have resulted in an economic benefit to Rambus?

YES _____ NO _____

If you answered "YES" to this question, continue to question 22.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 22-31.

22. Was the wrongful conduct of those companies a substantial factor in preventing RDRAM from becoming the standard for computer memory?

YES _____ NO _____

If you answered "YES" to this question, continue to question 23.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 23-31.

23. For what year(s) would RDRAM have become the standard for computer memory in the absence of the conduct identified in question 18?

_____

Continue to question 24.

24. Was the wrongful conduct of those companies a substantial factor in preventing RDRAM from becoming the standard for any of the following industry segments?

Performance Desktops	YES _____	NO _____
Mainstream Desktops	YES _____	NO _____
Value Desktops	YES _____	NO _____
Notebooks/Laptops	YES _____	NO _____
Servers	YES _____	NO _____
Workstations	YES _____	NO _____
Upgrade Modules	YES _____	NO _____
Gaming/Graphics	YES _____	NO _____
Digital TV/DVD/DVR/Set-Top-Box	YES _____	NO _____
Mobile Phones	YES _____	NO _____
Industrial Electronics/Data Processing	YES _____	NO _____
Other Consumer/Business	YES _____	NO _____

Continue to question 25.

25. Was the primary objective of the conspiracy to prevent RDRAM from becoming the standard for computer memory complete before May 5, 2002?

YES _____ NO _____

If you answered "YES" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 26-31.

If you answered "NO" to this question, continue to question 26.

26. Did those companies commit one or more overt acts in furtherance of the conspiracy on or after May 5, 2002?

YES _____ NO _____

If you answered "YES" to this question, continue to question 27.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer questions 27-31.

27. What damages, if any, did Rambus incur from wrongful conduct of those companies?

$_____

Continue to question 28.

28. *Answer this question only if you included Micron in your answer to question 17. If you did not include Micron in your answer to question 17, go to question 30; skip this question and question 29.*

Did one or more officers, directors, or managing agents of Micron acting on behalf of Micron disrupt the economic relationship between Rambus and Intel with malice, oppression, or fraud?

YES _____ NO _____

If you answered "YES" to this question, continue to question 29.

If you answered "NO" to this question, go to question 30; do not answer question 29.

29. What amount of punitive damages, if any, do you award against Micron?

$_____

Continue to question 30.

30. *Answer this question only if you include Hynix in your answer to question 17. If you did not include Hynix in your answer to question 17, stop and have the presiding juror sign at the bottom of this verdict form, skip this question and question 31.*

Did one or more officers, directors, or managing agents of Hynix acting on behalf of Hynix disrupt the economic relationship between Rambus and Intel with malice, oppression, or fraud?

YES _____ NO _____

If you answered "YES" to this question, continue to question 31.

If you answered "NO" to this question, stop and have the presiding juror sign at the bottom of this verdict form; do not answer question 31.

31. What amount of punitive damages, if any, do you award against Hynix?

$_____

Signed: _____
Presiding Juror

Dated: 11/16/2011

After this verdict form has been signed, notify the clerk that you are ready to present your verdict in the courtroom.

JUDGES SPEAK OUT ON ECONOMIC EXPERTS
A ROUNDTABLE

With Judges Carvill, Carter and McBride
Moderated by Asim Bhansali[★]

Economic analysis permeates nearly all aspects of liability and damages analysis in antitrust cases, and its importance is only growing. Supreme Court cases in recent years have extended rule of reason analysis to many areas that courts and litigants previously analyzed on a "per se" basis;[1] and rule of reason analysis requires economists to discuss competitive effects. Economists' role even may extend to helping establish the very existence of a conspiracy itself, by opinion on whether firms' behavior exhibits parallel conduct.[2] The increased role of economics in liability has not diminished its importance in damages calculation. To the contrary, as antitrust cases grow larger and more global in size, so does the complexity of the damages modeling done by expert economists.[3] Moreover, in view of the now largely accepted *Hydrogen Peroxide* decision requiring a detailed template for common damages proof at the class certification stage, economics rises to prominence in that critical pre-trial decision-making stage as well.[4] For litigants, the primary method to raise economic analysis before a judge is by putting on an economic expert. It is no exaggeration to say that effective presentation of experts can make or break antitrust case, or its defense. Consequently, economic experts are today an essential part of every antitrust case.

Thus, on October 25, **Judges Wynne Carvill**,[5] **David O. Carter**,[6] and **James McBride**[7] spoke at the Antitrust and Unfair Competition Law Section's Golden State Institute about on the topic of effectively presenting experts. The panelists discussed all stages of expert practice in civil cases, including development of expert opinions,

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★ Asim Bhansali is a partner at Keker & Van Nest LLP in San Francisco.

1 *See, e.g., Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, __ U.S. __, 127 S.Ct. 2705 (2007) (resale price maintenance not *per se* violation); *State Oil Co. v. Khan*, 522 U.S. 3 (1997) (vertical maximum price fixing not *per se* violation); *Jefferson Parish Hosp. Dist. No. 2 v. Hyde*, 466 U.S. 2 (1984) (invoking *per se* rule on tying requires threshold analysis of market power; otherwise, unreasonable restraint in relevant market must be shown)

2 *See, e.g. Bell Atlantic v. Twombly*, 127 S.Ct. 955 (2007) ("at the summary judgment stage a § 1 plaintiffs offer of conspiracy evidence must tend to rule out the possibility that the defendants were acting independently); *City of Tuscaloosa v. Harcros Chems., Inc.*, 158 F.3d 548 (11th Cir. 1998) (evaluating exclusion of statistical expert testimony as part of reviewing summary judgment determination).

3 As just one example of this trend, in *United States v. AU Optronics*, a price-fixing antitrust case, the government sought to impose a penalty in excess of the statutory cap under a provision that allowed fine calculation based on loss amount. *United States v. AU Optronics Corp.* , No. 09-cr-00110-SI, slip op. at 5–6 (N.D. Cal. July 18, 2011). The Court held that because the loss amount calculation was a factual finding that increased the penalty beyond a statutory maximum, it had to be found by the jury beyond a reasonable doubt. *Id.* at 2. Both sides therefore used economic experts extensively to establish the loss amount.

4 *In re: Hyrdogen Peroxide Antitrust Litig.*, 552 F.3d 305 (3d Cir. 2009).

5 Judge, Superior Court of California, County of Alameda.

6 Judge, U.S. District Court, Central District of California.

7 Judge, Superior Court of California, County of San Francisco.

challenges to expert opinions, and presenting experts at trial. What follows is an edited version of their remarks.

Following this panel, the California Supreme Court on November 26, 2012, issued its decision in *Sargon Enterprises, Inc. v. University of Southern California*,[8] which substantially clarified the trial court's role as "gatekeeper" for economic expert testimony in California courts. The Supreme Court explained that California courts must, under Evidence Code Sections 801 and 802

> act[] as a gatekeeper to exclude expert opinion testimony that is (1) based on matter of a type on which an expert may not reasonably rely, (2) based on reasons unsupported by the material on which the expert relies, or (3) speculative. Other provisions of law, including decisional law, may also provide reasons for excluding expert opinion testimony.[9]

Quoting the U.S. Supreme Court, *Sargon* further explains that: "In short, the gatekeeper's role 'is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.'"[10] Applying this legal standard, the California Supreme Court affirmed the trial court's decision to exclude what the trial court determined to be speculative expert testimony that lacked support in the material the expert relied on. While *Sargon*'s full implications for expert practice in California courts will take some time to be known, it is clear that state and federal standards for expert testimony are more closely aligned after *Sargon*.

Thus, where appropriate, this edited version of the panel discusses how *Sargon* might affect the panel member's views by adding in brackets further thoughts by the judges.

I. Panel Discussion

***Moderator**: What's your preferred timing for motions or other objections challenging an expert's qualifications, methodology or conclusion?*

Judge McBride: For something as critical as your opponent's expert's qualifications, they should be attacked early. Ideally, I would like to see it happen as early in the case as possible, if it's going to be dispositive of a major issue. The failure to have a well-qualified expert or group of experts on critical issues would be fatal to most antitrust cases. In most master calendar districts around the state, unless you're in a complex department, unless you're singly assigned, you're not going to be able to make those attacks as early as you need to. What I'm trying to give you is some pragmatic advice: Walk the ground and find out where your battlefield is, who your judge is, and how the place runs. When I've had attacks on experts' qualifications, I've been told right at the outset that some time will be required for this before jury selection. So, I pushed the trial estimate with the permission of my master calendar judge. [*After* Sargon, *this kind of challenge would have to be at least considered prior to the expert testifying.*] When you have a

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8 55 Cal.4th 747 (2012)

9 *Id. at 771-72.*

10 *Id.* (quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999)).

federal system or some of the single assignment systems, you're more liable to be able to get access to the judge. Still, give them a heads up that the challenge is coming. So, as with most things in the law, the ideal is early, but at least in my court it'll probably be the morning you're sent out for trial (with every other thing going on).

***Moderator**: Do you think there's ever a time where it might be appropriate to bring a challenge to an expert before going out to trial, whether it's summary judgment or some other law and motion practice?*

Judge McBride: Absolutely appropriate. While any sophisticated lawyer knows that summary adjudication in California state court and certainly in the First District is a hard-won battle, a seasoned litigator also knows that flushing these things out early at the summary judgment stage can have an extremely damaging effect on your opponent's confidence going forward, even when it's not dispositive. I am actually trying a case right now where exactly that attack was made at summary judgment, and I think it did have a substantial effect on the case going forward.

Judge Carvill: There's a conflict that arises from the way state courts works. On the one hand, once we start that trial, we want to roll. We want to keep the schedule; so, we want these issues resolved before the jury is empaneled. On the other hand, unless you're in a complex department where you have the luxury of setting out certain deadlines, you get generic pretrial motions that make it nearly impossible to address expert issues in advance. That arises from the timing of expert disclosures under the Code, which makes it difficult to tee up expert challenges before the jury is empaneled. As a result of that structure and sometimes the stipulations of counsel, you may get an *in limine* motion directed toward the expert when the deposition hasn't even taken place. [*Nonetheless, after* Sargon*, if a party brings a bona fide challenge to an expert opinion, it is clear that the trial court needs to address that challenge and the pretrial process is the logical time. To accommodate that, your so-called trial date in state court may increasingly become a fiction*.]

***Moderator**: Have you ever encouraged the parties to stipulate around the California Code of Civil Procedure provisions about the way discovery, particularly expert discovery, proceeds?*

Judge Carvill: Well, if you see there are going to be serious expert issues, then the result is that the first day of trial is a placeholder from which dates run, and then you end up doing the real work in the time that follows. The real first day of trial may be seven, ten, even thirty days later. In some really difficult cases, the first day of trial and the day the first witness testifies can be a two-month lag. This is not desirable given the impact on scheduling witnesses and the court's other case commitments, but that's the problem with the expert disclosure schedule. The practice of lawyers of continuing the expert depositions until the fact discovery is completed means you're trying the case and still conducting discovery. So, you're trying to get the judge to exclude expert testimony in pretrial when the expert hasn't been deposed. It's a real scheduling challenge.

***Moderator**: Do you see meaningful differences between the way you would have handled a* Daubert *challenge as a private practitioner in federal court and the way as a judge in state court you would handle a challenge under the Kelly-Frye standard?*

Judge Carvill: The short answer, particularly for commercial litigation, is no. I think the state and federal framework is very similar. The only significance of *Daubert*