UNITED STATES FEDERAL TRADE COMMISSION

and

UNITED STATES DEPARTMENT OF JUSTICE

SHERMAN ACT SECTION 2 JOINT HEARING

UNDERSTANDING SINGLE-FIRM BEHAVIOR:

BUSINESS HISTORY SESSION

BUSINESS STRATEGY SESSION

Thursday, October 26, 2006

HELD AT:

UNITED STATES FEDERAL TRADE COMMISSION

HEADQUARTERS BUILDING, ROOM 532

600 PENNSYLVANIA AVENUE, N.W.

WASHINGTON, D.C.

9:30 A.M. TO 4:00 P.M.

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and

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PANELISTS:

Morning Session:

Tony Allan Freyer
Louis Galambos
James P. May
George David Smith

Afternoon Session:

Jeffrey P. McCrea
David J. Reibstein
David T. Scheffman
George David Smith

C O N T E N T S

P R O C E E D I N G S

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MR. GLAZER: Good morning. My name is Kenneth Glazer, and I am the FTC's Deputy Director for the Bureau of Competition. I am one of the moderators for this morning's session. My co-moderator is Ed Eliasberg, Antitrust Division, U.S. Department of Justice.

A couple of housekeeping matters before we get started. First of all, please turn off all cell phones, BlackBerries or other electronic devices or turn them to vibrate. The men's room is immediately to the left, through the double doors you just came through; the women's room is to the left on the far side of the elevator banks.

One safety tip, in the unlikely event the building alarms go off, please proceed calmly and quickly as instructed, and you must leave the building through the stairway, which is to the right, which is the Pennsylvania Avenue side. After leaving the building, please follow the stream of FTC people. They have practiced this many times. You will all go to the Sculpture Garden, which is across the intersection of Constitution Avenue.

Finally, we request that you not make comments or ask questions during the session. Thank you.

This morning's panel is entitled Business History, and as the title suggests, we will be turning the clocks back today and looking at some of the landmark monopolization cases in the past, not the recent past, as in the Microsoft case, but antitrust's deep past, milestone cases such as Standard Oil, Alcoa, American Tobacco and AT&T. Like the ghosts of Christmas past, the ghosts of antitrust past continue to haunt us in good ways and bad.

We have come a long way since those cases, to be sure. In many ways, antitrust in the Sherman 2 area, the area of unilateral conduct, is still coming to grips with the issues faced by the courts in those cases, which dealt with the industrial giants of their day.

Think, for example, of Learned Hand's Alcoa decision and how to this day his enigmatic pronouncements in the Alcoa case are still invoked and debated. Think of "monopoly thrust upon it," "superior skill, foresight, and industry," and "the successful competitor, having been urged to compete, must not be turned upon when he wins."

Take Standard Oil. One historian's view of the record in that case, the Standard Oil case, led to a complete rethinking of the whole area of predatory pricing. Anyone who thinks history is unimportant should look at John McGee's article on Standard Oil and the impact it had on the case law.

To help us understand this critical part of our antitrust heritage, we are honored today to have with us four distinguished business and legal historians. Our panelists this morning are Jim May from the Washington College of Law at American University; George Smith from the Stern School of Business at New York University; Louis Galambos from the Johns Hopkins University; and Tony Allan Freyer from the School of Law at the University of Alabama.

Ed, do you have any introductory comments you would like to make?

MR. ELIASBERG: Thanks, Ken.

Let me just second how important the Antitrust Division thinks it is for us to take a look back at these major monopolization cases of the past, so with that, let me turn it back to you again so we can get started.

MR. GLAZER: Thanks, Ed.

So, at this point, let me introduce our first speaker. Jim May is a law professor at the Washington College of Law at American University, where he teaches antitrust, U.S. legal history. He was an attorney with the Antitrust Division and senior staff assistant to the National Commission for the Review of Antitrust Laws and Procedures. He is the author of many law review and other articles on the historical foundation of U.S. antitrust law. He is about a year away from completing a book entitled Standard Oil Company Versus United States, the Supreme Court, and the Foundations of a New American Society, which will be published by the University Press of Kansas.

Complete biographical information for each of the four speakers can be found on the FTC and DOJ Antitrust Division Sherman Act Section 2 web sites.

Now, I will turn it over to Professor May.

DR. MAY: Well, I am very pleased to be here this morning with everyone and to be part of this very distinguished panel, and I want to thank Ed and Ken and Jack and Jim and everyone who has been responsible for pulling this session together.

This morning we are talking about insights to be gained from historical scholarship, and I am not going to talk at length about that, but certainly we know that there are many. There are benefits for better understanding the past in its own terms, some having considerable value, but also better insight in our thinking about modern day issues. History often provides a useful point of comparison or contrast or a source of additional questions and perspectives we might not consider otherwise, and it can help to inform modern decision-making in a variety of ways.

Historical writing comes from people from a variety of different disciplines and backgrounds, as well as a variety of personal perspectives, business historians, legal historians, intellectual historians, economists, legal scholars, and others, and all of this work can be very valuable to take into account and to compare one with another.

When we talk about the potential value of looking back at early episodes and periods of antitrust law in particular, as Ken has said, there is much to be learned, and particularly much convincing to convince people in the antitrust field that looking at the Standard Oil story may, in fact, be of some value in thinking about antitrust law, where it has been, how it got here and where we are today.

Now, in his landmark book, The Antitrust Paradox, in 1978, Judge Robert Bork famously remarked that one of the uses of history is to free us from a falsely imagined past. Understanding antitrust's past better allows us to understand more clearly how many of the ideas that are currently in the mainstream first came to be established in antitrust law. At the same time, for example, historical understanding, I think, provides insight into how early antitrust thinking was not merely a less sophisticated early form of neoclassical economic thought, how variations from modern economic analysis that we find in earlier antitrust analysis do not merely reflect the power of "non-economic" concerns uninformed by any systematic theoretical approach, and a look to the past also can give us insight into how much of early antitrust debate, legislation, lawyering, and judicial decision-making was influenced by a different kind of theoretical outlook, an outlook that embraced as a part of, and not simply alongside of, its economic analysis, simultaneous concerns for individual opportunity, freedom of contract, efficiency, economic progress and prosperity, fair distribution of wealth, and political freedom, all to be promoted through a process of largely "non-discretionary" judicial decision-making, it was still widely thought, in the late 19th and early 20th Centuries.

Such an outlook, still widely if not universally influential at the time of the Standard Oil decision, of course, today runs deeply counter to antitrust thinking across the entire spectrum of antitrust opinion. Modern antitrust thinking assumes the inevitability of trade-off choices among these various values and is influenced strongly by a modern economic paradigm or paradigms distinctly different from the broader theoretical outlooks most familiar in the late 19th and early 20th Century lawyers and judges.

Okay, but that having been said, I want to talk about something else this morning, and that is a different set of issues arising in connection with the rise of the Standard Oil combination and the federal antitrust case brought to challenge it. This is a very big topic, indeed, and a very great deal has been written about it, and in the very brief time I have this morning, I am just going to try to suggest some of the most important themes in the historical record and in the scholarship assessment. If we have time this morning in the discussion period to go into more depth as to some of these points, I will be happy to try to do so.

Okay, well, with regard to the ascent of Standard Oil and the challenge to it by the Federal Government, well, to begin with just a single small refining plant established in Cleveland, Ohio in the mid-1860s, John D. Rockefeller and his associates, within a remarkably short period of time, came to dominate both trade in refined petroleum products and the long distance pipeline transportation of crude oil. Exactly how that was accomplished was a subject of considerable controversy in the late 19th and early 20th Centuries, and it has continued to be ever since.

As we know, Standard rose to dominance before the era of the automobile, and thus, its main product in the era that we are talking about was not gasoline, but was kerosene for illumination in homes and businesses, but there were other important products as well, such as lubricating oil and naphtha.

Now, within just a few years of Rockefeller's entry into oil refining, he and his associates were heavily involved, along with the railroads that were serving the oil fields of Northwest Pennsylvania, in efforts to establish cartels to reduce production and raise and stabilize prices.

By 1871 -- oh, here, I have a few pictures that -- this is in 1870. This was Standard Oil's refining operation. It obviously got bigger and much more substantial as time went on.

Now, in the 1860s, on to the 1870s, we have these efforts to cartelize refining as well as rear it, but by 1871 as well, Rockefeller had embarked on a successive campaign to acquire what is called the competing refiners in Cleveland, Ohio, and not long thereafter, disenchanted with the possibilities for desirably organizing the oil industry through cartelization, Rockefeller and his associates made determined and successful efforts to acquire the refiners in other parts of the country as well.

Now, coordination of the operations of the various acquired firms was achieved first through the trust arrangements of 1879 and 1882, and then more effectively, through the 1899 establishment of the Standard Oil Company of New Jersey as a holding company.

Transportation of crude oil to refineries and of refined products to market was a crucial dimension of the early oil business, and early on, transportation of both crude oil and refined products was by rail, and critics charged that the railroads had charged Standard Oil much lower freight rates than they charged Standard's competitors, thereby giving Standard what was seen as an unfair competitive advantage.

Later on, with the development of long distance crude oil pipelines that were pioneered by a consortium of crude oil producers in the late 1870s, this newer mode of transport became the most important method for transporting crude oil, and Standard made determined and successful efforts to dominate it.

With the discovery of the major new oil field on the Ohio-Indiana border, Standard Oil for the first time made significant investment in oil lands and crude oil production in the late 1880s. Standard Oil aggressively expanded forward as well into retail marketing, and as of the 1890s, this would have been a ubiquitous site in America, the horse-drawn Standard Oil wagons filled with kerosene from which the local grocery, et cetera, would be getting their fill.

Now, during the decades following the establishment of the first Standard Oil refinery, the combination expanded the size of its individual refineries to achieve economies of scale, found other ways to cut costs, developed an effective managerial hierarchy that included talented executives who joined Standard Oil after their own firms were acquired and developed new by-products from petroleum, yet John D. Rockefeller and Standard Oil faced growing public and private criticism and in the fear for their dominance and for the abusive tactics they were thought to use, and as a result, Standard Oil ultimately was challenged in numerous states before the federal case was litigated.

In 1882, the trust itself -- the 1882 trust itself was dissolved. In the 1890s, in the wake of a challenge to the participation of Standard Oil's Ohio trust, a challenge brought by the Attorney General of Ohio. This then led in 1899 to the establishment of the Standard Oil Company of New Jersey as the new holding company. Seven years later, during the administration of President Theodore Roosevelt, the antitrust suit was brought.

Now, Standard's market position we have to look at in two different parts with regard to the export trade and the domestic trade. In the late 19th Century, most refined petroleum that was produced in the U.S. was sold overseas, and of that oil, Ron Chernow in his recent book Titan estimates that in the late 1880s, nearly 80 percent of the refined oil purchased overseas came from Standard Oil.

With regard to domestic trade in oil, by the late 1870s, Standard's share of refined oil production within the United States was close to 90 percent. It is estimated that Standard's market share of crude oil production in the United States was a share of one-third achieved in 1898. Most of those market shares declined in subsequent years.

Okay, well, what about the antitrust challenge? And one of the things that is always great about this period, the cartoons of the period, here is the classic fear of Roosevelt swinging his big stick to bust the trusts, here facing down a symbol of Standard Oil in this period of the octopus.

Okay, well, I am going to largely skip over the Government's position except to say that the Government charged a conspiracy that allegedly had started in 1870 -- oh, the case was filed on November 15th of 1906, so we are just short of three weeks away from the great centennial of the filing of this case, so hopefully there will be both a Division and FTC celebration in just a few weeks.

Okay, the Government's primary emphasis in its case was a merger-to-monopoly theory. The predatory pricing and other bad acts conduct was much less prominent, although also included in the case.

Now, let us talk about the case in hindsight just a little bit, okay? Here is a young John D. Rockefeller in the early days of the conspiracy, okay? Here are some other things stressed in the case: Market shares, profits, alleged increases in prices of principal products, okay? But I want to go quickly through this.

Now, the remedy in the case, of course, was breaking up Standard Oil. This is not an exact diagram of how the breakup worked, neither accurate in its verticality nor in the number of units involved, but it is the best I have. So, in any case, what are we left with in the scholarship today about Standard Oil as we think about the case in hindsight? A couple of key things to note.

What was right about the Government's position in the case? How might the case be approached differently today, informed by historical as well as economic learning? Some things seem clear. A modern Sherman Act case would be unlikely to focus on a defendant's market intelligence gathering or the operation of bogus independents, as the Government did, in part, and likely would place less reliance on evidence of increased profitability. Analysis of merger activity, predatory pricing and barriers to entry would be more sophisticated today than it was in the earlier years of the 20th Century, although merger to monopoly essentially would remain at the heart of the case. More consideration would be paid today to potential economies of scale and other efficiencies, and in hindsight, more careful attention would be paid to the question of what would be an appropriate remedy in the case.

I have things I can say about the remedy, but we are short on time. I will save that for the discussion session in case there are questions about that.

Okay, now, what about the scholarship on the rise of Standard Oil and the question of remedy? Well, it is very striking the degree to which -- there is actually some vigorous disagreement about what we would think might be some very basic issues, such as was Standard Oil, in fact, a monopolist? And if a monopoly had been achieved, a monopoly of what? Pointing to increasing output and falling prices for refined petroleum products in the late 19th Century, Dominic, Arendt and Connell, for example, has concluded that Standard Oil never reached or set monopoly prices, even when it had a high market share, and "Standard was a large competitive firm in an open competitive market," a position that has been strongly challenged by, for example, Professor Scherer in a draft paper he presented in an earlier hearing session in this series.

Elizabeth Granitz and Benjamin Klein in their 1996 article contend that entry into refining was made easy in the late 19th Century and assert that "although Standard earned a significant share of industry profits on its dominant refining operations, it was petroleum transportation and not refining that was monopolized," and that "the profits earned by Standard in refining should be thought of as merely a share of the monopoly profits from the transportation cartel." Others continue to believe that at least until the early years of the 20th Century, it was possible to acquire monopoly power in the sale of refined petroleum products and that Standard Oil did so.

What is the state of thinking about the sources of Standard Oil's profits? Today we have not one but a number of prominent interpretations. Let me just say a real brief word about some of these, and then maybe I can expand later.

One is economies of scale or other efficiencies. Alfred Chandler, an eminent business historian, has declared that oil refining is a prime example of an industry in which cost advantages of scale critically shape the growth of firms and determine the structure of the industry. He notes that the Standard Oil Company was one of the first enterprises in the world to exploit the economies of scale by making the three key interrelated investments in production, market and management.

Others have pointed to other varieties of efficiency achieved by Standard Oil as significant contributors to its success. On the other hand, others have questioned at least the magnitude of some of the efficiencies claimed by Standard Oil.

A second explanation has again focused,

understandably, on the large number of mergers and acquisitions, either coerced or uncoerced, that Standard Oil is seen to have engaged in.

Another major area that Ken already alluded to, of course, is predatory pricing, and it was noted by the United States in the briefs but not central to its theory of the case, it was famously debunked by John McGee in his 1958 article reflecting the influence of Aaron Director at the University of Chicago. McGee we know declared the claims of predatory pricing in the Standard Oil case were neither in theory nor by direct evidence, but scholarly commentary since McGee's article has been split on whether Standard Oil may ever have engaged in predatory pricing, and, if so, how much this may have contributed to its acquisition or maintenance of monopoly power.

Okay, Elizabeth Granitz and Benjamin Klein, in the article we mentioned previously, have presented a much discussed thesis embracing a raising rivals' cost interpretation of Standard's power, and this interpretation is, as we know, that it was transportation, not refining, that could be monopolized. The railroads wanted some help with enforcing a cartel among railroads. They had an incentive to want Standard Oil to have a large volume of shipments that could be moved around among the railroads to enforce compliance with the railroads' cartel agreement, so that the railroads were happy to let Standard Oil be in a more dominant position in refining to serve that function. I am happy to talk about that more at greater length, too.

Okay, now, I think that we do not need much convincing to think that people in the antitrust field look to Standard Oil in a variety of ways, as a symbol, and as a detailed case record to be examined as new theories of antitrust action become prominent; thus, as Aaron Director had articulated a very different approach to predatory pricing, it is not entirely surprising that John McGee comes up with an article looking back at Standard Oil and drawing an explicit moral, which is we cannot get Standard Oil wrong, says Professor McGee, because it can be taken to stand for the wrong proposition, that what we should be looking out for is unilateral abusive conduct by dominant firms, and if we got it wrong in the first place about Standard Oil, we should not be paying that much stress to that behavior. We should be worried about group behavior than unilateral behavior.

Similarly, at a time when theories of raising rivals' costs have become prominent in antitrust law, we get an article reflecting those ideas and trying to compare them to the extensive record in the Standard Oil case in the Granitz and Klein article, and again, drawing an explicit moral, saying the Standard Oil case tells us that this is a valid kind of theory, but warning -- take it only so far and not further. Take it only so far as situations where there is a horizontal agreement upstream, and worry about the horizontal combination aspect, not the vertical aspect.

Well, I will stop there since I am about out of time. There is much for us to mine and give serious consideration given the scholarship on Standard Oil and the federal challenge to it, and historical scholarship relating to American business, the economy and antitrust law in general, and again, I thank you very much for organizing this event and look forward highly to discussing these possibilities.

(Applause.)

MR. GLAZER: Thank you very much, Professor May.

Our next speaker is George Smith. He is a Clinical Professor of Economics and International Business at the Stern School of Business at New York University. Among the courses he teaches at Stern is U.S. business history. He is the author of From Monopoly to Competition: The Transformations of Alcoa, 1888 to 1986, and was co-author with Frederick Dalzell of Wisdom From the Robber Barons. He has a book coming out again called The Concise History of Wall Street.

Professor Smith?

DR. SMITH: Thank you. Good morning. I am delighted to be here.

I am not going to repeat what Jim said about the value of history. As an economist, or at least someone who teaches economics, I am going to assume that you already understand that, but suffice it to say that I am going to deal with the case history here, and one of the things that historians bring to the party is that through our studies, we get very much involved in what we would call "the nonrational" or "the extraeconomic" aspects of policy and its enforcement, and we also worry about the consequences of particular decisions and actions and can reflect on those. It is hard to generalize from one case study, but an accumulation of case studies over time might be useful in guiding policy in the future.

This is the Alcoa case, which, of course, is a famous, if not notorious, case in antitrust law, and I am also going to assume that all of you at some point in your education have read, if not in its entirety, at least some excerpts from the decision written by Judge Learned Hand. My understanding is that the Alcoa case is a staple of law school education.

The Alcoa case, of course, describes one of the important boundaries of the law in antitrust with respect to size and power and market dominance, and it is important for that reason. I am going to take you a little bit through the Alcoa history, the history of the case, but I want to focus most importantly on the remedies and some of the consequences of the remedies.

Let's begin with Alcoa in 1937. This is Alcoa's market share in 1937. It is pretty good, you know, having 100 percent of the market in your core businesses, aluminum production, extracted from aluminum oxide, or alumina, also a big capital-intensive business. Alcoa also controlled the critical imputs, in this case the bauxite ore and alumina, at 100 percent market share, in what we quaintly describe as the U.S. market. Remember the days when the U.S. market was the only relevant market? Right? Alcoa had 100 percent, that is pretty good!

It also had robust positions in downstream markets in various aluminum semifabricated and end products, as you can see from the table on the right. Suffice it to say that Alcoa was a sitting duck for the antitrust lawyers in the second Roosevelt Administration who were mounting a rather frontal assault on big business in the late 1930s.

Alcoa is, of course, one of the great Chandlerian firms, and like Standard Oil, managed to do business by not only achieving economies of scale and scope but by bringing the prices of its product consistently down in order to expand its markets. In that sense, it was a rather good and benign monopoly.

Some of the practices it engaged in, in order to build that monopoly, would now be considered to be somewhat dubious if not outright illegal, but the company managed during a period of time -- when it had what looked like a controlling patent in the aluminum smelting process -- to achieve substantial scale economies and was integrated completely from the extraction of the ore from the mines all the way down to the production of end products, which was a completely self-sufficient enterprise, and in the process, Alcoa created substantial barriers to entry that nobody was able to penetrate in the production of primary aluminum.

Alcoa secured its position with the help -- although not exclusively -- of some exclusive contracts with suppliers of scarce inputs, like hydropower, bauxite, alumina, and developed its own research and development capabilities with respect not only to the technology, but also the science of metallurgy, and built one of the great industrial laboratories in the first half of the 20th Century.

Alcoa also relied, of course, on the U.S. Government to keep tariff protection high enough to restrain imports, and it established operations in Canada, which proved to be very useful for managing relations with cartels, European cartels, which strictly divided markets along national lines and relegated the North American market to the Canadian company, a market that was, in fact, serviced by Alcoa.

During the period of time that Alcoa was building its monopoly, it was constantly reducing its costs and prices in order to establish markets and built its markets largely by taking share away from other metals, other substances, copper, nickel, iron and steel. By World War I, there were no new entrants in primary production. One French firm had attempted to enter, but when World War I broke out, it left the field.

It is not that Alcoa was left alone. Alcoa was always in the cross-hairs of the Department of Justice and later on the FTC. In 1911, it was subject to an antitrust investigation, and Alcoa agreed to cancel all its exclusive supply contracts, to refrain from directly participating with foreign cartels. The Canadian subsidiary continued to do so but apparently with the blessing of the Justice Department for some years to come. Alcoa also agreed to refrain from such downstream practices as price discrimination, and market allocations of aluminum products.

In the 1920s, Alcoa went through a rather lengthy and continuous investigation from the Federal Trade Commission. Reports were written, but no action was taken, but this led to an awful lot of bad publicity, and then Alcoa was subject to a lot of private antitrust suits from customers, the most important of which was a case known as Baush v. Alcoa, which went through two trials, two sets of appeals, and wound up being settled out of court. It was a price-squeezing issue.

In 1937, Alcoa was charged with violating the Sherman Act, it reflected a big policy shift in the Roosevelt Administration, the second Roosevelt Administration. Alcoa at that time, as I mentioned before, was a real sitting duck for the Justice Department. It was a monopoly, it had a poor public image, it had the misfortune of being closely tied to Andrew Mellon, who was a great scapegoat for the Great Depression. The accumulation of antitrust investigations over a period of time had also made it a likely target. So, it was charged with the usual kitchen sink of antitrust violations in 1937, but as luck would have it, Alcoa wound up with a trial judge that it liked, Judge Caffey, in the U.S. District Court for the Southern District of New York, and this is where some of the interesting stories begin.

It turns out Alcoa had a superb trial lawyer named William Watson Smith who led the defense of its case. He was an older gentleman who had read the law -- that is how he learned the law -- and he and Judge Caffey seemed to have bonded very nicely in the courtroom. Irving Lipkowitz, who was the economist for the DOJ at the time, and who sat through the entire trial, described the situation as follows: "The judge and Mr. Smith were the old guys. They had wisdom. They had judgment. And we had a bunch of kids over here, scurrying around..." Right! He also recalled that Smith was very prone to calling the DOJ lawyers boy scouts during the trial, and the Judge never bothered to intervene.

The Judge, however, as this trial went on -- it turned out to be the longest trial in Anglo-American history -- the Judge got rather angry and impatient, and I think he essentially blamed the Justice Department for this trial. In any case, Alcoa was able systematically to refute -- through their expert witness and company witnesses and through its own presentation of the case -- all of the behavioral charges brought by the Justice Department, and Arthur Vining Davis, the Alcoa chairman, delivered rather stunning, persuasive testimony over a period of time. In the end, the Judge, of course, ruled in favor of Alcoa on the grounds that it had built a good business, it had brought prices down, and it, in fact, fell within the rule of reason as a benign, good trust.

Of course, the Justice Department announced its intention to appeal, and Judge Caffey said, great, get it out of my room courtroom! That is what they did. Of course, the appeal languished during World War II, when the Government had no interest in disturbing the operations of businesses that were supplying critical war material, but in 1944, the appeal was heard following an Act of Congress, which enabled the U.S. Court of Appeals in the Second Circuit to hear the case in lieu of the Supreme Court because too many of the Supreme Court Justices had conflicts of interest in this case.

In the meantime, a number of important things happened in the industry environment. As the war geared up in 1941 -- as the United States was preparing for war, it became apparent that Alcoa, as dominant as it was in the industry, was not going to be able to meet aluminum demand for military operations, and so the Government financed the building of primary aluminum as well as fabricated aluminum plants, and effectively doubled U.S. aluminum capacity between 1941 and 1943.

Alcoa, of course, built and managed all these plants, but at the same time, it opened the door for new entrants in primary production. And as the war wound down, it was quite clear that Alcoa managers were anticipating that they were going to face some competition in all sectors of the aluminum markets.

Then there was the great opinion written by Learned Hand in 1945 (I have extracted some of the quotes here), in which he entirely rejected the idea that the monopoly of Alcoa had been thrust upon them or was inevitable, and he also rejected the doctrine of the rule of reason. It was quite clear that Learned Hand, through some rather sophisticated economic thinking, determined that Alcoa simply had too much market power and was thereby forestalling possibilities for innovation and long-term price competition.

He writes in his opinion in very beautiful prose, "It was not inevitable that it [Alcoa] should always anticipate increases in the demand for ingot and supply them, to keep doubling and redoubling its capacity. We can think of no more effective exclusion of competitors than progressively to embrace every opportunity as it opened, and to face every newcomer with new capacity already geared into a great organization, having the advantage of experience, trade connections and the elite of personnel."

Now, I teach in a business school. This is what we try to teach our students how to do!

"Having proved that 'Alcoa' had a monopoly of the domestic ingot market, the plaintiff had gone far enough; if it was an excuse that 'Alcoa' had not abused its power," and he found no evidence that it had, "it lay upon 'Alcoa' to prove that it had not. But the whole exercise is irrelevant anyway, for there is no excuse for 'monopolizing' a market that the monopoly has not been used to extract from the consumer more than a 'fair' profit." It was all beside the point! The whole decision can be reduced to this single paragraph.

And then, in what seems on the surface like a wildly nostalgic passage -- although I think in retrospect I would argue that what he was really trying to do was establish what the thinking of Congress was in 1890 when it passed the Sherman Act -- Judge Hand says, "Congress did not condone 'good trusts' or condemn 'bad' ones; it forbade them all," which is saying if you want to change the law, change the law, change it, but I cannot do anything about it. "It is possible to prefer a system of small producers, each dependent for his success upon his own skill and character," and so forth.

Now, from the point of view of Alcoa, of course, this looked like a superb exercise in reductionist reasoning, and Leon Hickman, who was an attorney on the case for the defense, a gentleman in his nineties when I interviewed him, looked back at this case and said, "I can see why Judge Hand felt that no matter how we got to where we were, that it was not in the public interest. If you kept that in mind, then you worked back from that. 'What do I pin on them?' The fact that we were the first in every market that we opened up.

"But suppose that we had acted as a monopoly is supposed to act, and we simply sat back and took our profits and had not developed the market? You would say now that there is a monopoly of action. There is a great need for new markets and the uses for aluminum and you are not meeting it. So, in a way, from his approach, we had no escape. He'd get us either way."

What was the remedy? Well, obviously one potential remedy was to break up the company, but fortunately, there were all these government plants sitting there from World War II, and Judge Hand thought this might be a good remedy, and Stuart Symington, who had been the CEO of Emerson Electric and eventually a Senator from Missouri, was head of the Surplus Property Board, and through a lot of painful negotiations, he managed to persuade Alcoa to allow the Government to sell off these plants in a fire sale into two would-be competitors, Kaiser and Reynolds Corporations, so that they could establish themselves as fully integrated aluminum producers. And part of the deal was that Alcoa would license critical patents in technology to these companies, free of charge.

In a subsequent court ruling, Aluminum Limited, which was Alcoa's Canadian affiliate, was effectively spun off as the shareholders in both companies had to unwind their position in one or the other, so that there would be no longer any issues about participating in cartels.

Now, my concern in writing the book was to look at the impact of this decision on Alcoa's behavior, and here is where things get really interesting. There were a number of consequences to the remedies which I think are worth thinking about today. There is no question that once this oligopolistic industry structure was established, there was a lot greater competition in developing new products, especially end products. This was largely due to the efforts of Reynolds, which had a particularly high sensitively to end markets, so all kinds of new aluminum products appeared, everything from baseball bats to aluminum cans in which you drink your beer and your soda pop, and aluminum siding and so forth, and that was probably an okay thing.

But it is also quite clear when reading the testimony of congressional hearings that throughout this period, aluminum prices, both for primary aluminum and probably many downstream products, might have been higher than they needed to be, because Alcoa always had to keep a pricing umbrella over its less efficient competitors to ensure that they stayed in business. Alcoa worried about this a lot, and there was lots of internal documentation of this. Alcoa had an economist named Stanley Malcuit who wrote extensively about how Alcoa conducted its pricing operations. The idea was to keep prices low enough to ensure that demand would grow but high enough at the same time to ensure that the competition would stay in business, and these prices were administered through conventional oligopolistic price signaling.

A couple of things that probably people did not understand very well was that the Alcoa Laboratories, which had been a great scientific laboratory -- very productive in advancing the fundamental science in metallurgy and its related chemistry -- saw its focus change after the war. The laboratory replaced its scientists with more engineers, focused on short-term process and product engineering. It withdrew from the academic community -- where it had traditionally worked closely with universities, participated in conferences, gave papers and so forth -- and it became more secretive.

It began to rely more on trade secrets as opposed to patents to protect its technology, and it is quite clear that although Alcoa had a store of fundamental knowledge it could draw on by the 1950s, by the mid-1960s, early 1970s, that fundamental knowledge was pretty well depleted, and Alcoa and the industry as a whole became less technologically innovative.

And finally, the management of Alcoa during this period spent probably an inordinate amount of time, if not most of its time, worrying about complying with the antitrust remedies. Alcoa remained under court jurisdiction all the way through 1957, and the business of Alcoa's top management was to make sure that the company was in compliance, and so long-term planning and fundamental thinking about resource allocation took a back seat to these considerations, and there is some question as to whether that was, again, good or bad for the industry.

I think the larger question I would raise here and something I hope we can discuss subsequent to the presentations today -- is how much do policy-makers and attorneys who bring cases or actions think about the second and third-order consequences of remedies? I know, obviously, there is a long history of economic analysis and the evolution of economic analysis as it applies to antitrust and the thinking of the FTC and the Department of Justice. But in recent years, as antitrust seems to be increasingly focused on changing firm behaviors as opposed to looking for structural remedies in a global economy, I would just like to suggest that new methods in game theory and futuristic planning scenarios might be better incorporated into the way antitrust lawyers think about remedies and the possibilities of what might occur pursuant to their implementation.

So, I will leave it there, and we will turn it over to Lou.

(Applause.)

MR. GLAZER: I will introduce Lou. Our next speaker is Louis Galambos. He is a Professor of History at John Hopkins University, has written extensively on the historical development of America's telecommunications system. His publications include Competition and Cooperation, The Role of Innovation in the Modern Bell System, and Anytime, Anywhere, a study of early wireless development.

Professor?

DR. GALAMBOS: Now, as you have already figured out, you cannot talk about business history without talking about Alfred D. Chandler, Junior. His books are very long, and so I will try to give you a very short explanation. His books are kind of chest-crushers. If you read them and you fall asleep, they come down on you and hurt, so I will try to give you a little bit on Al and what he did to the history of business.

When he started his career after the Second World War, at that time, the dominant historical paradigm for business, which was very closely attuned with the view of the Department of Justice and later the FTC, was provided by Matthew Josephson, who was the author of a very popular book called The Robber Barons. It had a lot of personality, you know, like the columns on the two sides of the Wall Street Journal, a lot of personality there and a lot of quotes. It was published in the depths of the Great Depression, and it focused on scoundrels who ran and robbed corporations and the American people.

In the years that followed, business historians responded to that by trying to show that the scoundrels were really good guys. This has also been done in women's history, it is called worthy woman history, so the business leaders were really doing a whole lot, and it was great for America, and they were builders, not robbers.

Chandler set out to develop a new context for business history, and by the time he retired, he is now Professor Emeritus at the Harvard Business School, he had achieved that. He and his students had established a new context for looking at business.

Now, Chandler built and constructed this on the basis of two bodies of theory, one of which you have heard about and one of which you have not. One was a sociological theory stemming from Max Weber through Talcott Parsons' study, and the other is Joseph Schumpeter's theory of modern capitalism. He changed both of these. Probably most people don't read Schumpeter, but they have heard of creative destruction, which you see often in newspapers.

I once lived in Texas, where they condemned Joseph Schumpeter because he had once been in a socialist government. They never bothered to read him. He was a great friend of capitalism.

What Chandler did was he built up a dynamic, comparative history of the role of large corporate enterprise and tracked its progress in the early 19th Century through the end of the 20th, and he used the idea of Schumpeterian entrepreneurship, but he looked to organizational capabilities rather than heroic individuals. The organizations that were successful over the long term, he said, were those that made the vital three-pronged investments in an effective managerial hierarchy, in mass production, and in mass distribution, and most of the large second industrial revolution firms he looked at combined those two functions, combined distribution and mass production.

Chandler left no doubt about the positive impact of large enterprise over the long run, and I quote, "the modern industrial enterprise played a central role in creating the most technologically advanced, fastest-growing industries of their day. These industries...were the pace setters of the industrial sector of their economies -- the sector so critical to the growth and transformation of national economies into their modern, urban industrial form."

He did this in very careful, meticulous, historical studies, the first of the United States, then a comparative study with Germany and the United Kingdom added, then finally, near the end of his career, he brought Japan into the picture and a list of other countries.

The Chandlerian construct became linked very closely to developments in two other disciplines that I just want to mention. In economics, Richard Nelson and Sidney Winter developed an evolutionary theory of economic change and tried to bring in dynamic elements, all right, as opposed to comparative static or static analysis of the neoclassical kind of equilibrium analysis. Their effort carried them from theory into history, from a discussion of national innovation systems, a great book that you might want to look at, into the sources of industrial leadership. This left them close to the context in which Chandler was working, as did the work done in transactions costs economics by Oliver Williamson and others. Williamson, like the evolutionary economist, was introducing historically particular elements to theory, and when you think about that, you can see that it does strange things to theory when you add history. It was moving it toward a view that had very strong historical elements, just as was Paul David, who is an economist at Stanford, who was working on path dependency, which had the same impact.

All I am suggesting here is that the context in which scholars, a large number of them, placed and analyzed big business was changing in important ways. The comparative static analysis of industrial organization theory was co-existing at this time with dynamic styles of analysis with important elements of place- and time-related history, and they were all answering that great question that Coase asks, "Why Are There Firms?" If markets are more efficient, why do firms exist at all? A great question, all right, and there were a lot of new answers developing for that.

Now, similar changes were taking place at the same time in management studies. Management scholars were now devoting a lot of attention to the environment external to the firm, the aspects of the environment that affect the firm's capabilities, and that yielded innovation over the long term, and everything I am going to talk about touches on this: the difference between long-term analysis and short-term analysis, between what is called static or comparative statics and secular or dynamic analysis of the kind I am talking about. So, they looked at how firms responded to drastic changes in their technological environment.

This work added something important to the

Chandlerian concept, because Al had focused most of his attention on successful firms. (Aside: he was my second mentor; I followed him at Johns Hopkins, took the position that he had, did the same things that he did, so you should be aware of that.)

The firms he studied were what are called at the Harvard Business School "Chandler firms". They were all successful, okay? So, they were very carefully selected, all right? And after some of them failed, he did not follow them through. He stopped his history at when they were successful, had a very strong positive element. He also ignored the political history, the administrative state. And scholars at business schools have, since that time, begun to look seriously at the political dimension of the large corporation.

Now, at the same time that this was happening, in the seventies and the eighties and the nineties, significant changes were taking place out beyond the academy where academic research was being done by historians, economists and management scholars. The world was changing in a significant way. After the breakdown of Bretton Woods and the decisions by the leading OECD countries to foster relatively free trade, the world entered the second great phase of globalization, and along with that came the third industrial revolution, and these two forces changed things in very dramatic ways for the United States and for our view of competition.

Now, that, I believe, is the context in which we have to place the antitrust case against AT&T in the 1970s and the subsequent developments that have taken place in telecommunications.

The Bell System had done all the right things according to the Chandler paradigm. They had done those three things, and really well, okay? They knew that aside from Sweden, they were the best telecommunications system in the world. They told little telephone jokes: that in France, half of the people are waiting for a telephone, and they were right, and the other half, they said, are waiting for a bell tone. They could make these jokes about almost every country. When I went to Italy, and this has been in the recent past, the last time I was in Italy, I was looking for a touchtone phone so I could get on my phone in Baltimore and check messages. After looking around, I went into a good hotel and I used the only touchtone phone I could find. But that still didn't work, and I listened carefully, and could hear da-da-da-da. It was a dial phone with a touchtone top on it. Italy was far behind and our telephone people knew this. They knew that they had done all of this and done it extremely well.

Bell had not only done that but created a very powerful social ethic to the company; in addition to service, it embraced a network mystique in the Bell System that pervaded the enterprise. Bell Labs was a marvelously creative institution. It had developed crucial elements of the modern telephone technology. And it is significant that Bell is where the transistor came from, out of Bell Labs. This was what created the information age.

In the 1970s, American productivity was drifting toward zero. Productivity gains reached zero in the beginning of the 1980s. This helps you understand why we had political change at that time. Productivity increases account for two-thirds of our growth in the 20th Century, and they were going to zero, and the Japanese were doing really well, and the Germans were doing really well, and we were doing poorer than the British. Could you believe that? We were doing poorer than the British. So, we were in trouble, economically. So, it was in that context, then, that the case took place.

The Bell accomplishments I've mentioned establish a pretty impressive record, and so it helps you understand why AT&T leaders ignored their own history, because, in part, that history was not in the Chandler paradigm. When the modern Bell System was being created in the years before World War I and during its subsequent history, AT&T had compromised with public authority, and in my courses, I always distinguish between two kinds of monopolists, dumb monopolists and smart monopolists.

AT&T became, under the leadership of Theodore Vail, a smart monopolist. That is why they could maintain that monopoly for such a long period of time in a country that was opposed to it, all right? They did the right things. Their social ethic and their behavior and their performance was extremely important.

But at a crucial point in the early 1970's, AT&T forgot about that. It threw down a gauntlet to the DOJ and FTC and said, "We are great, and we want to stay just like we are." The DOJ picked up the gauntlet, brought a suit against AT&T, and by the end of the decade, the company's leaders saw they were losing the case, losing the federal case in Judge Green's court. AT&T settled out of court by breaking up the Bell System.

Now, at that crucial point in the development of our telecommunications network, the largest in the world, AT&T's leaders and the Government both shifted gears. Now, they paid too much attention to history and too little attention to those two changes that were taking place in the global economy; that is, globalization, with intense competition, and the third industrial revolution.

The settlement opted for the Chandlerian vertically integrated model, with AT&T keeping what was then called the Western Electric business and Bell Labs. It sacrificed the so-called Baby Bells -- no babies any longer -- and the local networks. AT&T gave away the mobile phone business it had created! (I have my cell phone on. It is on vibrate, I hope yours are, too.)

So, underestimating the changes that would take place from the top to the bottom of the organization, AT&T struggled and then failed to implement a successful strategy. AT&T failed to make the transition to competition and adopted the strategy of convergence, which failed. The market worked, and AT&T recently had a rendezvous with creative destruction, okay? There's AT&T out there, but it is not the historical AT&T we have been discussing.

I probably should not be so harsh with AT&T's leaders, because the Government seems to have been similarly unmindful of the changes taking place in the global economy. There was no consideration in the antitrust case of the Bell System's efficiency. It was ruled out. There was no consideration of the remarkable innovations that Bell Labs had produced. I was told by somebody at DOJ that if the Government wanted a lab, it could build one -- just like that, as if it did not take 30 or 40 years to really create an effective institution. You just build one, you know, if you want one. That was the attitude.

There was no consideration of the vast market for telecom equipment that was being thrown open to foreign suppliers. There was no consideration of whether deregulation might not serve the public interest better than structural settlements under the Sherman Act. There was, instead, dedication to a policy that was rooted in the past when the most important market was the American market, when American public policy could be framed almost entirely in matters of the domestic economy.

Now, subsequent to that decision -- a very important one, the United States Government seems to have learned faster than did the large integrated corporation or the subdiscipline of business history. The United States changed its antitrust policy in the 1980s. There were no more structural cases under Section 2 of the Sherman Act until the Clinton

Administration launched its attack on Microsoft. Fortunately, from my point of view, attention to global competition and a need for the United States to remain competitive in the world economy seems to have modified even the Microsoft settlement in ways that are suited to the world we actually live in.

This is a different world from the one that was at the heart of Chandler's history, and business historians have recently begun to come to grips with that. There is an important work by Naomi Lamoreaux, Dan Raff and Peter Temin who are providing a new understanding of business history. This work and related studies are shifting the field and helping us to understand why in the United States we are spinning off and de-integrating firms. As this new synthesis of business history suggests, this is a world economy rapidly being reconstructed by information technology and intense global competition.

So, my conclusion is twofold: First, do not ignore your history or you may suffer, as the Bell System did, and Bill Gates almost did, and second, do not get locked into an historical model when major changes in the political economy are taking place and new ideas are needed. And both conclusions bring me back, I believe, to an evolutionary model broadly conceived.

Thank you.

(Applause.)

MR. GLAZER: Thank you, Professor Galambos.

Our last speaker this morning is Tony Freyer. He teaches legal history at the University of Alabama Law School. His publications include Regulating Big Business: Antitrust in Great Britain and American, 1880 to 1990, and the recently published Antitrust and Global Capitalism, 1930 to 2004.

Professor?

DR. FREYER: I want to repeat as my colleagues on the panel, I really feel honored to speak before you today. In that book that was just mentioned, I spent about 13 years interviewing antitrust enforcers around the world as well as business people and drawing on the scholarship of the members of the panel, and so I am grateful to be able to speak and share some thoughts at a program like this.

Also, I was really surprised when I got the invitation that there would be attention to business history at an enforcement agency, and so I am really grateful for the opportunity to say something about that.

What I would like to begin with is to just think about what do enforcers need to be aware of when it comes to history, and I would like to suggest a couple of things that historians can provide a view for. One is a sense of change, and one is a sense of choices that either have been forgotten or ignored and that those forgotten sources of change may be useful in appreciating kind of the current situation, whatever the current problem, in this case dominance, might be concerned with.

So, to do that, I would just like to give you two quotes, kind of one way to think about what are alternatives to what you have in your mind now as kind of the current enforcement options with regard to dominance, and the first is a quote from Barry Hawk, who we all know is a U.S. merger lawyer who runs the Fordham Antitrust Policy Program that is comparative, and he said, "for good or ill, we shall have to live throughout most of the world with clones of Article 81 and 82. That means dominant firms' behavior will be more closely scrutinized than would be the case if the Sherman Act's Section 2 were the model."

Eleven years later, the OECD Journal of Competition Law and Policy published the results of a worldwide survey of all major antitrust regimes. The U.S. antitrust regime's core objectives -- the U.S. core competition objectives were exceptional in that they combined solely the achievement of greater economic efficiency with promoting and protecting the competitive process. So, what did the other major antitrust regimes do, all of the other except the few such as the United States, they combined the core competition objectives with what were called public interest objectives.

So, the United States is basically the outlier when it comes to enforcement in the dominance area, and I would like to just suggest that by comparison, there may be some choices that might be useful to look at to rethink or at least understand our current approach to dominance, but at the same time, one of the things that comes from this comparative perspective is that those regimes, antitrust regimes, have arrived at their enforcement policies, that is, including public interest, because particularly of the business history of their particular countries.

All right, what I would like to do, first of all, just to give you just a very quick comparison of two kinds of histories of two antitrust regimes, originally I had grand ideas of giving you Australia and Japan as well as the EU and the United States, but now I am just going to have to give you a couple of thoughts about the EU and the U.S. in particular, and hopefully I can bring up the Japanese and the Australian material later on in our discussion.

What I would like to first of all note is just it is helpful to remember, it has come up in the discussion, that the U.S. did arrive at its antitrust approach because it reflects these ingrained values that are distrustful of established authority. Now, what is the alternative? What is the alternative to ingrained values of the distrusting alternative authority? And that is for an enforcement regime to rely upon bureaucratic intervention. That is, government is good. Government is good, and what we have, and just in the antitrust area, it took until after World War II for Europe, Australia and Japan and so forth to appreciate the degree to which antitrust had become part of antitrust intervention in a way that was effective.

Now, just to give you an illustration of how that change took place, I would like to just quote from Jean Monnet, who was the founder or father, I guess you would say, of European integration, and he described American antitrust in this way. Harvard Law professor Robert Bowie reconciled American antitrust principles with German principles governing the abuse of dominance in the Treaty of Paris in 1951 in the European coal and steel community, and in that, Monnet argued that Bowie's reconciliation of the German approach to dominance and the American approach to dominance created a new alternative, and that alternative was to achieve not only market integration, but it was also to achieve equality of opportunity within the community, and those two goals, integration and equality of opportunity, would be the principal goal of the European competition policies.

Now, in 2003, the European economist Matthias Pflanz echoed that same thinking, so this is pretty current, and let me just read what he had to say about U.S. antitrust policy. He said it is defined primarily in terms of ultimate prices paid by consumers, but the focus of EU competition policy has been on behavior by companies which prevent others from competing on equal terms. Thus, the creation of a level playing field between actual and potential competitors and across different states have been primary objectives of EU competition policy.

Now, during the 1970s and the 1980s, the policy of Chicago economics, defining efficiencies, particularly in terms of microeconomic price theory, came to prevail, and that is what we have today, even though there has been kind of modification of in the 1990s, but what I would like to indicate is that the EU approach, where you have to consider these public interest norms, it may provide some useful choices, particularly in light of the fact, as we will indicate by concluding with Microsoft, that most countries outside the United States follow the dominance theory of the European Union.

Now, I have got just two industries I would like to look at. One is a traditional industry from an old economy, and that is tobacco, and then I will conclude with the leading example from computers, and that is Microsoft. This is a later American Tobacco case, that is in 1946, it is not the famous one of 1911, and what that case did, it was the first time the United States Supreme Court actually upheld the Alcoa decision. Alcoa, of course, was decided by a Special Appeals Court, and a couple of things are interesting to remember about the American Tobacco case.

First of all, it originated at roughly the same time as the Alcoa case did itself. We saw that Robert Jackson initiated the Alcoa case, and it was, as we will see at perhaps some other point, a relevant international cartel question, but when -- the replacement for Robert Jackson was Thurman Arnold, and Arnold was a very activist litigator, and his approach to these dominance problems was to try and litigate as many of them as possible, and one of the firms he chose was tobacco, because it had so much prominence as a consumer -- as a consumer good.

Now, what is often forgotten about Arnold is that he specifically hired economists to employ and develop theories that were of the new economic theory at the time, which was an oligopolistic theory pioneered by Joan Robinson and E.H. Chamberlin, and what Arnold did in the American Tobacco case was to develop an approach, a theory to monopoly that would kind of carry through with what they subsequently won in the Alcoa decision; that is, carry through an approach that uses circumstantial evidence to try and prove a conspiracy.

Now, in the American Tobacco case of 1946, it actually had arisen -- Arnold had argued it back in 1939 -- in that case, there was extensive devotion to proving the monopoly through circumstantial evidence by looking at disparity in prices and what we would call various kinds of predatory pricing and this sort of thing, and Arnold and his crew were able to put together a pretty impressive showing that American Tobacco had abused its dominant position, but it was all based upon circumstantial evidence using this monopoly theory that I have just referred to. In 1946, they won the case, and in the process, they established this important precedent.

Now, for my purposes, what I would like just to indicate is that first of all, what we might take from this as an example is that you can talk about Alcoa pro and con as a useful theory, but what is also important to remember is that both Tobacco and Alcoa were the cases in which the procedures to establish the remedies in these cases also went from being exceptional to becoming the norm, and that is, to establish the rules of discovery.

In both of these cases, as Professor Smith indicated, you had these massive records that were accumulated, and what is interesting about Caffey's decision in Alcoa is that he specifically, of course, decided against Alcoa, but what he also did was to say that the arguments presented for acquiring the evidence I am going to accept; that is, the discovery theories, which were new. Jackson and Arnold organized those theories, developed those theories, using the oligopolistic theory of Robinson and of Chamberlin. Now, those theories are the same theories, of course, that in the 1970s would be reshaped by the Chicago School to use discovery in a new way.

Okay, that is kind of the American approach to tobacco. I would like to give another case that gives you the European Commission's approach, and this is the Philip Morris case of 1987, and the Philip Morris case is -- it is very interesting in that it is an American firm trying to restructure, move into the European market, and it is up against these integration, equal opportunity values, public interest values that I have just referred to, and this involved Philip Morris forming a merger with the Rembrandt Group, which was attempting to dominate the tobacco industry in Europe, and they established a 50/50 control of RTH, which was the Rothmans Tobacco Holdings Company, and that, in turn, controlled this Rothmans International, which was a subsidiary, and what the Commission was up against was trying to decide whether or not these purchases would constitute a violation of the dominance theory under Article 82.

What we found in this case was that not only was dominance talked about from the point of view of prices, but it was also talked about from the point of view of these public interest values that were protecting small business, protecting regions, this sort of thing, and what the Philip Morris case did was to establish a precedent within dominance where these kinds of financial mergers, this financial restructuring, would be a basis for making a judgment on whether or not a firm was abusing dominance. And what the European Commission and subsequently the Court of First Interest held was that absolutely, these public interest values would be taken into account to decide whether or not there had been abuse of dominant position, and in the case of Philip Morris, it would amount to a consent decree, that it was established to specifically to hold Philip Morris and Rothmans to ongoing oversight, ongoing, and it is a vigorous oversight, to ensure that this dominance has occurred, so it is a bureaucratic intervention, but it is to achieve these various public interest goals.

Now, there also are a couple of spin-offs that I would just like to indicate as well, and that is from Philip Morris, they established what was called a decisive influence doctrine, and this is a doctrine where even the most minimum kind of influence by a subsidiary that has been acquired, even that could be, found to be evidence for abuse of dominance if there is a threat to these broader public interest values, and in addition, the Court of First Instance also applied an analysis of microeconomic theory to this decisive influence to try and use these kind of investments or at least to analyze these kind of investments to see whether or not they lead to oligopolistic dominance.

Now, what Philip Morris did in establishing these doctrines, both from the standard of proof as well as with regard to the indirect influence, is that the EU Commission applied them when it came to Microsoft, and in just the last few minutes that I have, I would like first of all to draw the distinction between the U.S. Microsoft decision and the EU Microsoft decision in terms of what are the ultimate values, the ultimate outcomes.

The policy goals in the U.S. Microsoft case was to preserve this efficiency that had grown up through the internal investment and development of the company, and that, of course, was able to preserve the control of the web browser. The approach from the European Commission was in an effort to try and -- reflected this concern for these public interest values and the integration, and the outcome there was that the remedy was stronger. It required Microsoft to surrender its monopoly over the media player.

And in the process of doing that, both the Court of First Instance and the Commission specifically recognized the need to uphold these external interests; that is, the integration and the public interest values as well.

The claim was that Microsoft or the European

Commission's decision simply was protecting competitors. Indeed, the response of the European Commission and then later on the Court was that we had a broader range of values to be concerned with than efficiency, and I have got the quotes from those decisions to uphold that.

Okay, just in conclusion, then, what I would suggest is that in the early Tobacco case, as well as in the Microsoft case and in the Philip Morris case, each of those reflected different business history contexts and also reflected different kind of enforcement regime that was concurrent in those times, in that if you look at them, they provide kind of a range of choices, comparisons, and those comparisons might be helpful in formulating current policy.

Thank you very much.

(Applause.)

MR. GLAZER: At this time, we will take a break and come back at ten minutes after.

(A brief recess was taken.)

MR. GLAZER: Okay, let's resume. Thank you for those presentations.

Professor Galambos, I think you wanted to make a couple of general comments in response to the other presentations.

DR. GALAMBOS: Since we are doing history, three of the industries we have touched on, oil, telecommunications and aluminum, have all in the recent past reconsolidated. They are reconsolidating in some cases along global lines, and I think my own view is that we are moving, particularly in commodity industries, we are moving relentlessly toward global oligopoly, and we do not have any way to talk about global markets really very effectively. Most of what we work with is national statistics and stuff. That is a problem.

MR. GLAZER: And, George, I believe you also wanted to make a comment.

DR. SMITH: Just one point following that. Standard Oil -- well, let me put it this way. The oil industry in the world today is only three transactions away from establishing the pre-1911 Standard Oil Company, so look out.

And in the aluminum industry, Lou reminded me, rang a bell on the Reynolds-Alcoa merger recently. The aluminum industry worldwide today is more concentrated than ever, but it is also more competitive than ever, you know, and aluminum was subject to administered pricing, does now appear a commodity and trading in the world markets, and that is an interesting point.

Finally, with respect to these three cases, I think one thing that makes AT&T exceptional or different from the other cases is it was through most of the 20th Century a regulated monopoly, and part of what was going on in the 1970s was what the Government gives, it can take away, right? And as a regulated monopoly, I think its behavior was somewhat different from the other two companies, which had become monopolies through pure market development.

MR. GLAZER: Okay.

DR. GALAMBOS: I think that Alcoa, through most of its history, judging by George's own history of it, was a smart monopolist. I think they did all the right things, and so in their case they got into trouble even though they were a smart monopolist, but that is how tenuous I think it is, to hold that kind of market position.

MR. GLAZER: You think they were a smart monopolist, but do you think they did anything that today would be judged to be illegal under the antitrust laws to achieve or preserve that monopoly?

DR. SMITH: Well, sure. No, I certainly --

MR. GLAZER: No, the question to Professor Galambos.

DR. GALAMBOS: Well, I think they were smart insofar as they worked over the long term to be innovative, to be efficient, to provide consumers with what they wanted. They worked closely to develop new uses for aluminum, and remember, when they started, you know, it was a curiosity, and for a while they sold aluminum as jewelry, and so their behavior over the long term certainly favored consumers, and in that regard, they were a smart monopoly.

MR. GLAZER: It sounds as though you were on the Judge Caffey side of the case, then.

DR. GALAMBOS: That is right.

DR. SMITH: If I could just add one point, I mean, what all of these enterprises were doing, these great Chandlerian, vertically integrated, capital-intensive businesses were doing, is they were transforming luxuries into commodities. That is how they made their money, and in turn, were deriving, you know, wealth creation and productivity increases for all of society. So, I mean, you know, I guess from a business historian's standpoint, these were pretty good companies.

MR. GLAZER: Jim, let me ask you, you touched on remedies before, indicated you wanted to say a few more things about remedies.

DR. MAY: Sure, I would be happy to since that is an important issue.

MR. GLAZER: And if you would move the microphone up.

DR. MAY: Oh, sure. Obviously perhaps the -- you know, certainly one of the most commented upon, criticized aspects of the Standard Oil case was the remedy. Certainly Justice Harlan was very upset about the remedy at the time, as were the progressive reformers, and part of the criticism was that the dissolution was by way of a pro rata stock distribution, so that every shareholder in Standard Oil of New Jersey got a proportionate share in every one of the Standard Oil companies, and so you ended up with the same set of shareholders owning the stock in each of the spun-off companies, and it was thought at the time and later that tempered the interfirm competitive fervor that might otherwise have resulted.

It is also the case that the spun-off firms were not vertically integrated, that they tended to be specialized as marketing firms or refining firms, and scholars have widely suggested that the remedy also may have been in some sense not as harmful as it might otherwise have been in the sense that changes were already occurring outside of antitrust litigation to erode Standard Oil's position.

There was new intensified competition overseas with a combination of Royal Dutch and Shell. There was new competition from monopoly to oligopoly already underway with the discovery of new oil fields in Texas and California and new integrated firms arising in the wake of those discoveries, and so there has been scholarly criticism that first, maybe what really changed the industry was not so much the antitrust litigation as other changes that were going on anyway, and criticism, in addition to the pro rata distribution, in that a lot of the old patterns were sort of continued.

The spun-off companies continued to have the same geographic market definition among the marketing companies as they had before, but on the other hand, the scholarly assessment is not completely negative. There is a notion that a number of writers have suggested that over a decade after 1911, the various companies did become vertically integrated, did become more effective competitors on their own, and there is also this argument that whereas Standard Oil may have been a real pioneer and a real success in bringing together a tremendous managerial hierarchy, that it may have been becoming a bit height-bound and maybe overcentralized and sort of telling, for example, Indiana Standard, okay, well, you have got this new cracking process, but we are not as enthused about it as you are, and maybe we will not move forward, and that there is an argument that the dissolution really allowed some of the younger generation in the separate firms to really have more of an opportunity to go their own way and to try things that were not getting approved as quickly, and there is also this notion that another change afoot, apart from antitrust, was that there was a whole big new demand for gasoline that was opening up new opportunities and spurring competition as well. So, those were a few things I wanted to say.

MR. GLAZER: So, it sounds like, in sum, you are saying the record is mixed. The historical record is mixed on whether the remedy had long-term positive or negative effects.

DR. MAY: Yes, I think that the consensus is pretty strong that the remedy was not as well thought out or as effective as it should have been in hindsight, but I think it is a mixed record as to what were its effects.

MR. GLAZER: Or even whether it mattered or not in light of the other changes taking place in the industry?

DR. MAY: Right.

MR. GLAZER: Did you want to comment?

DR. SMITH: Well, Wall Street certainly liked the remedy, because at least in the short run, the breakup value of Standard Oil was much greater.

DR. MAY: Rockefeller's fortune just soared because of it. He had a big windfall himself.

DR. GALAMBOS: And you cannot eliminate this from the politics. Politically, the American Tobacco and Standard Oil cases were very important in developing a feeling in the population that things were going to be okay, because the Government was going to move in and do something. Now, it did not shape the American business system and it allowed the development of oligopolies that I think on the long run were efficient, and that is what our productivity record shows, so in that sense, it was something that eased us into a new system, and it had that political impact, and so it seems to me that some of these cases can be understood in that way, not just the economics of what they did, but the politics.

DR. FREYER: Could I just follow up on that as well? It is kind of helpful to think about politics in a sense from the enforcer's point of view of symbolism, and that is why Thurman Arnold is kind of the archetype. He was conscious at every part of the litigation that the outcome in court was actually secondary to what people thought about it, and it is just something I think for enforcers to bear in mind as well, but he was very proactive, and in that proactivity -- yet he was able to kind of bring the economy or at least he was able to bring antitrust enforcement to a whole new level of effectiveness, and, in fact, the system that he put in place at the Justice Department, you know, would last until 1980 in terms of the resources that would be put into cartels versus mergers/monopoly, it was basically a 60/30 or 60/40 kind of apportionment, and in support of the economists, as well, in the Justice Department.

All of that was tied to his perception of what was the cost of the litigation given the evidence that we need to achieve these results, and we do not really need to win if we can also get the public to think and the Congress to think, particularly the Congress to think, that we are making a difference, and then that image actually -- one of the things I was fascinated with when I went to Fortune Magazine, I traced Fortune through into the 1980s, how receptive they were to Arnold's activism for solid business ends, right?

Now, you can debate it one way or the other in terms of the actual economic effect, but what I am talking about is the symbolism, you know, he succeeded in capturing the imagination of business journalists, at least a lot of business journalists, as well politicians.

DR. MAY: And if I could pick up, too, on some of those comments, of course, the other reason that Standard Oil led to a feeling in the popular mind that now the trust question is really getting resolved and we can feel good about that, is that it was complimented by the reaction to the case in the political realm, which was a revitalized antitrust debate in the 1912 election and the legislative effort that led to the Clayton Act and gave rise to the FTC in this building we are now sitting that provided this other alternative way of thinking about approaching these questions in addition to courtroom litigation.

MR. GLAZER: So, thank God for the Standard Oil case you are saying? Otherwise, we would be on the street at this moment.

Jim, did you want to expand also on the raising rivals' costs aspect of the case?

DR. MAY: Well, we can if you want me to. Essentially, if people have looked at this particular 1996 article, essentially what Professors Granitz and Klein try to do is pick up on some of the -- often what is heard as post-Chicago theory that people in the antitrust field have been very familiar with in the last ten years, and basically say, okay, can we make sense of the Standard Oil record in a new way in light of this new theory, this way of understanding exclusionary behavior, and taking issue with John McGee's earlier piece that said, ah, yes, it was not that Chicago School Aaron Director's view, that is the way to understand Standard Oil. Instead, it is a raising rivals' costs theory, but one that is sort of circumscribed and does not go as far as Professor Salop and Krattenmaker in their raising rivals' costs article which got a lot of attention in the antitrust field a few years go, and so basically they say one way in which you can have effective exclusion of new entrants into a particular line of business would be if, in fact, an upstream firm that provides some central service like transportation, in fact, cooperates with you to raise a barrier to entry that otherwise might not be there, and in this particular variant of that notion, the idea is that whereas a supplier of a certain commodity, a railroad normally would say, oh, I would like to have as much competition on the downstream level as possible, because I want just as much demand for my services as possible and why would I ever want to cooperate with increasing market power downstream, that is against my interests, the notion is that if you are having trouble stopping cheating and having trouble maintaining a cartel at your own level, through your own devices at that level, you could, in fact, find downstream firm to be a useful enforcer.

In Standard Oil, they called it being an evener among -- you know, if everybody gets their quota as to how much of the freight business they supposedly can get, it is the evener who is supposed to make sure that nobody's breaking ranks in terms of the quota of how much of a particular business they are getting. So, the notion is you want to have somebody downstream who has a great enough volume that if they see somebody, in fact, trying to pick up too much business, they shift a lot of their own volume of demand to somebody else as a way of punishing cheating and to keep a cartel going.

The notion in Granitz and Klein's theory is that that is what was going on between the railroads and Standard Oil. It was not the old story that Standard Oil had so much power independently, that it was just coercing a better deal with the railroads, extracting a better deal with the railroads. No, no, no, it was the railroads who had incentive to try to have a player with a large volume, not just for cost savings, for dealing in volume, right, with a shipper, but for this other reason, to provide this cartel enforcement function, and that that is what they were doing, and that the railroads liked it because they got a cartel going more effectively and it was worth it to them, and they had to share something with Standard Oil, and Standard Oil got its return on the monopoly power that was possible, but only possible in transportation, by being able to be in position to have monopsony power to get a better deal on crude oil, and to have power to raise prices to consumers on petroleum prices. That is their theory, okay?

And, you know, people here, it sounds very familiar, as you know, just in our own field, you know, there are these kind of raising rivals' costs theory, they are basically taking that and saying, "A-ha, that is how we understand it." It is not a theory that everybody has agreed to. I mean, other people have different explanations for it, but it is a very prominent theory among antitrust people. It is a very leading interpretation now among antitrust folks as to how to think about it.

MR. GLAZER: I guess when your book comes out we will find out what you think of the theory.

Moving now to the Alcoa decision, George, with the many attempts by the Government to file antitrust cases against Alcoa over the years, was it just a matter of the times and circumstances ultimately caught up with

Alcoa and its management, or did Alcoa just finally cross the line into anticompetitive conduct in your view?

DR. SMITH: No, I think it is the former, in a word, yes, I think things caught up with Alcoa. I think briefly what I tried to do is describe the political context in which these cases were based. There was no question that the Justice Department was going to go after Alcoa, because it was probably the purest monopoly that existed in the economy at the time, and it really had no choice given its own doctrine, and Alcoa was a public relations disaster.

I mean, if you go back and re-read the newspapers and the press accounts, there is a wonderful story I have in my book of Arthur Vining Davis in 1933 leading a cheerleading session with a band in a hotel in Washington, saying, you know, "How much of the market do we have?" And everybody would shout, "100 percent." They had a song about this. They did not have a good PR guy around to tell them that, you know, you do not talk this way.

But, you know, to be serious about this, I think it --

DR. GALAMBOS: Senior counsel.

DR. SMITH: -- as historians we are taught that nothing is inevitable, but if something comes close to inevitable, I think it was bringing of the antitrust case.

DR. FREYER: Can I just add something for the enforcers in this room to remember, that there is amazing room for unintended consequences, and because of the great work in Alcoa that Professor Smith did, I incorporated it in my new book, and I was really surprised when I went to the Justice Department records and the Jackson papers how they went after Alcoa for entirely different reasons than ended up being the basis for the decision in the case.

They went after it because it was an international cartel, an international cartel was a push-button, hot issue in the 1930s because of Hitler and to a lesser degree the Italians, international cartels and so forth, and then there was the threat to the western hemisphere, where the U.S., you know, considered to be dominant markets and so forth, and there was an issue over the venue, whether or not it would be in Pittsburgh or whether or not they would get it in in New York, and to show you how significant it was, they had to get the President involved and they had to go to Congress to get the case moved from Pittsburgh into New York City.

And then, it was Caffey. Caffey ended up looking like they failed anyway, right? But what they got from Caffey -- again, unintentionally -- was the success of this discovery, which led to this trail of these international cartel arrangements and patents that it was exactly what Arnold needed to get these huge increases in the Justice Department's budget from 1939 to 1942. He was able to remake the Justice Department primarily because he was able to connect national defense in the war years with antitrust, and he was actually being criticized by Bernard Baruch and others who were saying, you know, this is the wrong approach and we need to do what we did in World War I and so forth.

So, the Justice Department was looking at Alcoa and these other cases, American Tobacco and so forth, for a different reason, but since all the cases were put on hold during World War II, they were still able to do the discovery and so forth, when they have peace. Peace comes, and then we get the decisions in peacetime that looked much more -- I mean, what we are used to and so forth, but it was all driven by these unintentional motives.

MR. GLAZER: And, George, another point on Alcoa, shifting from monopoly an oligopoly, did the aluminum industry seek the types of increases in innovation and productivity that the Government hoped for in seeking its relief?

DR. SMITH: Well, it is not clear to me what the Government hoped for other than kind of a general notion they had that if more competitors were in the field, there would simply be more innovation. What I am suggesting is that it depends on what kind of innovation you are talking about. Clearly there was an explosion in product development, which perhaps had some social benefits, but there was also a problem with, as I suggested, in the research and development side of the business, not just for Alcoa, but for the whole industry.

One thing monopolies do well is science, because they can afford to do it, and in oligopolistic industry structures, there is more pressure to focus on the short term and do less of that, and I think it is not just Alcoa. You can look at other industries as well to see this pattern.

And then the question is, well, where does the science go? Obviously we know that the history of the United States research and development since World War II, the Government plays an increasing role in fostering fundamental science, but that did not happen so much in the aluminum industry.

So, to answer your question, I do not think the Government's attorneys, you know, had a clear notion, other than this general idea that it would promote innovation, but I would make another argument, and this is a hypothesis, but based on my reading of the history, it is important to understand that monopolists, at least in growing industries, have to remain alert, you know, and they have every incentive to reduce their costs and drive prices down in order to increase their markets, and we see that again and again in the stories of the great dominant firms of the late 19th Century and early 20th Century.

That may change as markets mature, but certainly in the growth phases, I think there is a risk in tampering too much by monopolists. They have to remain alert, because there is always room for substitutes and there is always room for competitors to enter under a pricing swell. What happens when industries mature is different, but I would argue that, well, aluminum was mature in terms of its organizational -- Alcoa was a mature company in terms of its organizational capabilities. The markets were still in a growth mode when the Government brought its suit, and to me, that might have been a problem. So, the timing of the suits becomes a big issue as well.

MR. GLAZER: And it lasted so long as well.

DR. SMITH: Yeah.

MR. GLAZER: Professor Galambos, did the breakup of AT&T lead to the increased innovation and productivity that the Government sought in that case?

DR. GALAMBOS: That is good, because I was thinking about George's answer, too. I think it is very important to distinguish between the short term and the long term, and I think that almost always the structural cases will probably bring you short term a higher level of innovation. That is not invention, but innovation, as the introduction of something actually in the competitive market. So, that is the important distinction you have to make.

That is why I am saying, that is what history I think has to offer, is that you have to look at both the short-term impact of things and the long-term impact on the national economy and now a global economy. So, it seems to me that the Alcoa case brought about accelerated short-term innovation, but what George is suggesting is that long term, it probably did not, and it may have actually hurt the pace of innovation over the long term. That is what I am suggesting in my analysis of the AT&T case. I think, is that in the short term, it clearly did, but in the long term, it probably did not. This is one of those alternatives we do not actually get to measure -- we are doing "what-if" history, what if we had kept this, you see?

What we do know is we do know the history. We do know where the transistor came from. We do know where the switching systems came from. We do know that they had a very efficient telephone system, and that accomplishment was based on innovation over the long term.

I think the hard thing to think about in public policy is to think about long-term implications and what you mentioned about the unanticipated consequences on the long term I think is a very important point, because it is very hard to construct these counterfactuals. The only one who has really tried to do it methodically that I know about is Robert Fogel, the Nobel Prize winner in Chicago, and if you look at his carefully, you understand just how difficult it is to construct a really good counterfactual for railroad development in the 19th century U.S. so, it is a hard thing.

It is a difficult public policy choice. It is difficult for people under immediate pressure to come to these conclusions. I guess what we are calling for is some kind of political-economy statesmanship and a look at that long-term view.

MR. GLAZER: Yeah, I think Zhou Enlai was once asked about the French Revolution, and he said, "It's too early to tell." It takes decades sometimes for these things to sort themselves out, and in the case of telecommunications, we are still trying to figure out whether it was a good thing or not to break up AT&T 25 years ago.

George, you were about to --

DR. SMITH: No.

MR. GLAZER: Okay.

DR. FREYER: I just would like to add, one of the challenges is not to be certain that you can predict the future, because I know that Professor Galambos interviewed Baxter and -- yeah, I only interviewed him once, but one of the things that he -- when I interviewed him, he was receiving a lot of flak from historians for -- and this was six years later, I guess, after the breakup, and he was absolutely certain that they were all wrong in that everything that -- you know, that his motives and -- I mean, the whole policy, in other words, was absolutely right.

There was one interesting outcome of that as well that he also told me about, which I also think enforcers can bear in mind, and that is he said what people do not realize is that then helped me to take a budget that was declining, an antitrust budget that was declining, and put 15 percent of it, whereas before it had been 40 percent of it, into monopoly, which was the AT&T stuff, and then 85 percent I could go after price-fixing cartels and so forth, and I would get a lot more attention, and I would almost win all of those, and so forth, right?

See, and I can go to Congress and say, well, look, you know, how aggressive we are, so on and so forth. So, just the point is that not only was he certain, but he also had motivations that were within the institutional culture of the Justice Department as well that explained what he was doing, and they reinforce one another.

MR. GLAZER: And Professor Galambos, do you believe that deregulation was the more appropriate government response to AT&T's dominant position?

DR. GALAMBOS: Yes, I have suggested today that I think that regulation or deregulation in that case, in some cases markets win over the long run, have brought about a more satisfactory solution than the one that we created. These cases were so enormously complex and would take so long to finish that a great deal had changed while the case was being decided.

So, even though getting a legislative answer was very difficult in the 1970s, as we know from the legislative history, it would have been, it seems to me, a more satisfactory solution. I think we were moving towards solution, as it was, and I think we could have continued in that more gradual way.

MR. GLAZER: In light of this --

DR. GALAMBOS: Can I say -- I think what I am suggesting is that the time -- the historical time of structural cases may have passed. That is what I think I am suggesting. They had an important function at one time, and that time now may have passed. We are in a new age.

MR. GLAZER: For structural changes?

DR. GALAMBOS: For structural cases, yes.

MR. GLAZER: And some of it may have even passed by 1911 as well.

DR. GALAMBOS: What?

MR. GLAZER: It may have passed by 1911 as well?

DR. GALAMBOS: No, I do not think so, because of the political saliency of the issue. There were just a tremendous number of Americans very upset about the trusts and very upset about what was happening. You have just got to remember, this was an agricultural commercial society in which this industry was growing, but most of the people, until the 1940s, lived either on farms or in towns of 2500 or less, and this was a society that was very upset about monopoly, did not understand it very well. They were worried about all kinds of things.

They were worried about bankers who were making decisions that were affecting, you know, how I can sell my corn and my wheat, and so this had a political importance that you cannot ignore -- this is a democracy, and you cannot ignore all of those people and the way they think about things. So, I would see this as a function of democracy that we have moved in this direction, did all of this work over this period of time, and then the times changed, and now we have to respond to that.

DR. SMITH: One thing about that period you have to remember, the Standard Oil revenues were bigger than state budgets, and the $1.4 billion transaction creating U.S. Steel took place in a $21 million economy. I mean, these things were huge by the standards of time, and these businesses operated in secret, they were unregulated, and, you know, it was occurring, as Lou is suggesting, in an agrarian environment where these things were really scary. So, it was a different time.

MR. GLAZER: In light of the consolidation that we are seeing in the telecommunications today, do you think we are closer to what AT&T was at the time of the lawsuit?

DR. GALAMBOS: No, I do not think we are moving back to the Bell System, but we are getting reconsolidation. It seems to me I think you are seeing the effect of economies of scale and some economies of scope, so you are getting reconsolidation.

In wireless, you have got consolidation along international lines, not necessarily national lines. So, you are getting reconsolidation in the industry, but I do not see a move toward vertical integration such as the Bell System had, and I do not see myself a move toward re-regulation. I think that there is such a bad feeling about rate of return regulation and the problems of trying to impose that that we moved away from that, and I do not see any move back toward creating a regulated monopoly.

Just remember that Theodore Vail, at the AT&T system, accepted regulation. He said, we have got to have a regulation, we are going to have universal service, we are going to have one big supplier, and it is going to be regulated. But I think that the attitudes now have changed dramatically all around the world.

MR. GLAZER: How do other forms of communication such as VOIP, voice over internet protocol, affect the antitrust analysis in your view?

DR. GALAMBOS: This industry is changing enormously and very fast, and in those kinds of situations, it seems to me the best thing to do is sort of stand back and watch it, because the whole industry is being transformed. I do not know about you, but I have a number of friends who are no longer hard-wired, okay? They are just on wireless -- and there are big parts of the world that are never going to be hard-wired, in which wireless is now taking over and the internet moving in. And so you can see by my age that I am not doing internet telephone calling myself, but young people are, and that is going to increasingly happen.

MR. GLAZER: Tony, as we look at the developments of the worldwide competition law enforcement, are we seeing consensus that dominant firm behavior needs to be at the top of antitrust enforcement by all developed and developing jurisdictions?

DR. FREYER: Yeah, on that question, there is, you know, Australia, Japan, the EU, and then the United States, it is a big topic of -- you know, it is a big focus of attention. The big difference is the -- you know, how the enforcers respond, and in the three outside the United States, it is largely bureaucratic intervention.

I mean, Japan, they have never had a monopoly case since the occupation that went to court, but they do it virtually every day through administrative guidance, and they -- you know, it is -- you know, all these sectors are -- you know, they have their own -- the person in charge of them, and they are working intergovernmental with the treasury ministries as well, continuously, and they have been much more geared to more entrepreneurial kinds of approaches and so forth.

In Australia, because you have got a highly concentrated market already, the same kind of bureaucratic intervention, except that there is more willingness to resort to kind of innovative enforcement, things like shaming, you know, relying on publicity extensively, and then working out what we would call consent decrees, but they are compliance programs where the businesses, the corporations or whatever, they are presented in public forums with the enforcers as having agreed to some remedy, you know, on television and this sort of thing.

I mean, it is a -- I think it is a highly -- it is a publicity-centered kind of enforcement, and perhaps you can do it in a small country like that, but I would urge all enforcers to look at the Australian example, partly because of this guy, his name is John Braithwaite, and he has tried to develop a lot of alternative, publicity-centered kinds of remedies.

Courts -- do not get me wrong, courts are important, but he has tried -- he has, again, found that what he calls these good citizen corporations are to be found if they are given a kind of -- the right kind of incentives. I guess that is one point.

Another point I think, that the U.S. really is not going to be able to avoid dealing with the other -- you know, dealing with dominance in a global context for the main reason that Lou indicated, that from the point of view -- if you just talk to the Australians or the Japanese or the Europeans about dominance, they all are very aware -- they use the language of a global economy, globally, that is what they talk about.

You know, I think the U.S. still, with its huge market and so forth, there is still an awful lot of -- a sense of insularity, maybe not purposefully, just subconsciously or whatever, but these other places are not, and a lot of that has to do with because they do not see such a division between antitrust enforcement and trade policy. There is a lot more interaction between the two, and that gets back to those public interest goals that are common in these other enforcement -- you know, things like preserving jobs is a legitimate antitrust goal in most other antitrust regimes. Now, how you do it is not automatic, but I am just saying it is a legitimate goal.

MR. GLAZER: Let me open it up now. These questions will be to all the panelists.

From the research that you all have presented today on these landmark cases, and we have touched on this to some extent already, but do you believe there are lessons learned that would be helpful for the Antitrust Division and the FTC in assessing the proper level of antitrust under Section 2 of the Sherman Act?

Jim, do you want to begin?

DR. MAY: As to the proper level of antitrust enforcement? I am not sure of what lesson I would draw to that just from the Standard Oil case. Certainly there are lessons to be drawn that are commonly drawn with regard to --

MR. GLAZER: Use the microphone, please.

DR. MAY: Oh, sorry, that are commonly drawn. You know, we begin with respect to how thoroughly things are thought out ahead of time and given attention, but Standard Oil, you know, is an unusual set of facts, an unusual time period, as Professor Galambos, talked about, and drawing a broader conclusion about how many structural Section 2 cases you should bring based on the record of Standard Oil is something I am somewhat hesitant to draw conclusion about.

MR. GLAZER: Other panelists? George?

DR. SMITH: Well, I think there are many lessons that can be learned here. One, of course, is that antitrust always has a political dimension to it, and one always must be sensitive to whether politics must be paid attention to as well as the economic issues at hand, and sometimes the politics are important and cannot be overlooked. It is not just about economics.

I think a second lesson is that I think, looking historically back in time and also considering where we are in the world today, that structural remedies are probably less desirable than more flexible kinds of remedies, because over time, it is hard to undo structural remedies, and that suggests that people in the Government have to become at least as sophisticated as managers in big business corporations in anticipating what possible futures lie ahead.

DR. GALAMBOS: I think that the lesson that I would draw particularly would be to look to the global economy and look to what needs to be done. Where I see the great need right now is for consideration of the way the firms are operating and evolving and for a related attempt to level the field of concern and public policy. I do not think you can level the economic field myself, and I am very worried about the way public interest becomes a cloak for private interest.

In other words, you claim the public interest, but what you really want to do is you do not want another strike in the middle of Paris. I do not want people to get out in the streets and destroy things, and so I am very worried about the gap that still exists between various countries and the way they approach public policy and competition. I would say that is a really important issue.

DR. FREYER: Yeah, I think that there are kind of two -- it is useful to bear in mind that there are two ranges of issues. One is from the point of view of institutional culture of the enforcer themselves, and the other that is from, you know, the business impact.

From the enforcers themselves, I think that there are just -- just maybe you all do this, and since -- you know, I do not know, but it is to pay just real attention that there really is a nexus between the resources that you have and what you -- and the evidence that you need to make a case, and that is what drives how you allocate, you know, what -- whether it is cartel cases or merger/monopoly kinds of cases, right, how those are apportioned.

And what is very interesting in going to these other places is that there is a very conscious awareness that they have got to select cases in a way that they have got to increase resources given the kind of evidence standards, and in all other countries except the U.S., the evidence standards are -- you know, they are just not as tough, you know, as they are in the United States, because it is not conspiracy. It is more towards results and this sort of thing.

So, just being aware of -- you know, that is a lesson from the -- as I say, you may do it consciously, hopefully you do, but one thing that Braithwaite did is actually develop a way to look at this. It is called an enforcement pyramid. It is a way to apportion costs based -- and evidence kinds of things, and it is a useful kind of illustrative device.

Yeah, on the other point, you know, Lou's point, what is interesting about whether or not you could go -- there is no doubt whatsoever that what is public interest to one person and the public is different, and that is why public choice now is what dominates, you know, the teaching in law schools and in business schools and so forth, you know, because there is no -- you know, there -- public interest is relative, but again, all I would say on that is that in these other places, they are very conscious that there is a policy benefit in, you know, linking competition policy to environment, and that is one of the things they do in the European Union, you know, maintain environmental protection.

Sure, you have a kind of abuse with the state aids and with the telecoms, you know, Monty's last days was he was absorbed in whether or not he was going to sign on to saving the French from the Italian, you know, big state company and so forth, and he ends up saying okay, you know, but he insisted that he have these very rigorous accountability-based things.

So, what I would say, though, when it comes to specific doctrines, like verticals and conglomerate mergers and monopoly, that done rightly or done effectively, the public interest has a lot to be said for in terms of broader interest rather than narrower type interest, and I think that was actually the problem with the U.S. remedies, just looking at conduct.

Microsoft was so far ahead of what they could do, what they knew they could do, beyond what the government remedies were, that the Government just, you know, just was not aware. I mean, whereas in the EU, they did not have that problem, because they were just worried about results, right?

MR. GLAZER: We have time for one final question, and the question is, drawing on all this history, what would be your advice to the agencies as to what type of conduct the agencies should focus on? When you look back at these cases, what type of conduct do you think had the greatest anticompetitive effect, whether or not it was found by the Court or the agency at the time to have that effect, but from your studies of the actual underlying records of the cases. Any thoughts on that?

DR. GALAMBOS: Well, I clearly am very close to Bill Baxter's conclusions about what we should do. It seems to me that there are forms of predatory behavior that you would want to look at in terms of behavior, not necessarily the structure so much as behavior, performance, and I think that some of those -- both for their political impact and their economic impact deserve emphasis.

What I am arguing is that you have got to be sensitive to both the political impact and the economic impact. So, it seems to me that there are forms of behavior that we want to eliminate from our competitive economy, and the question is how best to do that.

So, I am interested in a very restrained approach. I am interested, as I have said, I do not see -- I just have no confidence in these structural cases at all, but there are certain forms of behavior, and that is the dumb monopolist behavior, I think. They are dumb at times, they do do stupid things, and I think we can see that when it happens.

MR. GLAZER: Any particular examples?

DR. GALAMBOS: Well, failure to innovate, I think, failure to innovate over the long run. I am opposed to the structural cases. I am enormously enthusiastic about anti-cartel behavior, for instance. I want to eliminate cartels, and I think the public policy of leniency for the first person to come forward, that is, the prisoner's dilemma game, is marvelous, I think it is just wonderful. So, I want to attack that -- this is the kind of behavior that I think we can limit sharply -- collusion is dumb monopoly behavior, and so that kind of behavior deserves attention and government action.

DR. SMITH: I would say from, again, from a layperson's perspective, if you look at the Sherman Act, and it has two proscriptions, those shall not conspire to restrain trade, and thou shall not monopolize, and I have a lot of problems with the second, unless in the process of getting to monopoly you violate the provisions of the first, and I think that is -- so, I would agree with Lou.

DR. GALAMBOS: Yeah, when a company has to use a shell company to sneak something through, there is probably something wrong, you know, you can smell that. You do not have to be terribly -- you do not have to be a really good economist to know something is probably wrong when they are trying the shell game on you. So, I think that we could handle this.

MR. GLAZER: Tony?

DR. FREYER: Just on these two points, first of all, there might be something to be said for looking at all of the other regimes outside the United States do pay a lot more attention to verticals and do pay a lot more attention to conglomerate mergers, and the main reason that is so is because of the sophistication in financial arrangements and constructs and this sort of thing, and I am not sure that that sophistication is -- I mean, I think there could be more research done to see if there was not room to move U.S. efficiency theories in the dominance area into kind of capturing more of the wide range in which this financial sophistication is worked out, and in that connection, I would give a plug for Professor Smith's book on KKR, primarily because he provides the context for the --

DR. SMITH: KKR?

DR. FREYER: -- for the use of depth, which has just become a pervasive influence in financing. A lot of it has to do with tax policy, but the problem with the book from my point of view is he says how important antitrust is in setting the precondition for the triumph of debt financing in the seventies, which dominates today, but does not explain what the problem is, and in the last point, that is I think there is a lot of room for looking at conglomerates, in using the kind of indirect influence that the EU has and at least thinking about that as a way to get at these financial kinds of problems.

MR. GLAZER: Well, with that, I want to thank the panelists very much for their participation in what was a fascinating panel. Thank you very much.

(Applause.)

(Whereupon, at 12:00 p.m., a lunch recess was taken.)

AFTERNOON SESSION

(1:30 p.m.)

MR. ELIASBERG: Good afternoon. Welcome back to the hearings. My name is Ed Eliasberg, and I am an attorney with the Legal Policy Section of the Antitrust Division of the United States Department of Justice, and I am one of the co-moderators for this afternoon's session on business strategy. My co-moderator is Ken Glazer. Ken is Deputy Director of the Federal Trade Commission's Bureau of Competition.

Before I start, let me cover a few housekeeping matters. They are four in number. First of all is with respect to cell phones, BlackBerries, everything else that may make noise, it is time to turn them off. You can turn them on again after the session is over.

The second, the men's room is through this door right here and an immediate left, first door on the left. The ladies room is across the elevator bank, take a left, first door on the left.

The third point is a matter of safety. If in the very rare event there should be some sort of building alarm going off or something like that, please proceed calmly and quickly as instructed. If we must leave the building, that will be on the stairway on the right here on the Pennsylvania Avenue side. After leaving the building, please follow the stream of other FTC people -- they have practiced this many times, so they know what the drill is and where to be going -- and we will all go to Sculpture Garden, which is across the intersection of Constitution and Seventh Street on the other side of the building, where you will be re-assembled and we will take things from there.

Finally, we request that you not make comments or ask any questions during the session. So, that is it for the housekeeping side.

Now, for the session itself, we are honored to have assembled a distinguished panel of business school professors who teach business strategy and marketing and consult with major corporations, as well as an Intel vice president involved in marketing and strategic planning on a day-to-day basis.

Our panelists this afternoon are, to my immediate left, Jeff McCrea, who is vice president of the sales and marketing group at Intel. Next to him is Professor David Reibstein, who teaches at The Wharton School of the University of Pennsylvania, where he is the William S. Woodside Professor and Professor of Marketing.

Next to Dave Reibstein is Professor David Scheffman, who is a director of the LECG Consulting

Group, an Adjunct Professor of Business Strategy and Marketing at the Owen Graduate School of Management at Vanderbilt University, and the former director of the Bureau of Economics here at the FTC, not once, but twice, okay?

DR. SCHEFFMAN: Still trying to get away.

MR. ELIASBERG: And finally at the end of the table is Professor George David Smith, who is a Clinical Professor of Economics, Entrepreneurship and Innovation at the New York University, Stern School of Business. Professor Smith spoke this morning quite eloquently at the business history session, and although he is not going to be making a presentation at this particular discussion, he has been kind enough to join us as a discussant for this session on strategy. He is the author of the book From Monopoly to Competition: The Transformation of Alcoa, and the co-author with Frederick Dalzell of Wisdom from the Robber Barons, and has a book coming out soon called A Concise History of Wall Street.

Both this morning's panel on business history and this afternoon's panel on business strategy are attempts by the Antitrust Division and the FTC to bring together the experience and expertise of different disciplines beyond law and industrial organization economics to see what we here at the enforcement agencies can learn about single-firm conduct that can help us in analyzing it under the antitrust laws.

In this morning's very interesting session, we heard from the historians. This afternoon, we look forward to insights from the field of business strategy from this stellar panel that brings several perspectives, from teaching business strategy to future leaders in MBA programs and consulting with major corporations on business strategy, to planning and implementing business strategy on a day-to-day basis within a corporation.

We are interested in exploring ways in which current mainstream antitrust analysis of single-firm conduct might be enriched by a better appreciation of what is actually being taught to current and future executives regarding how to successfully operate in the marketplace, and including competitive positioning and obtaining market power, and how business strategy in the real world is developed and implemented within the firm.

As we think about incorporating the teaching of business strategy in antitrust analysis, we are all interested in understanding what role, if any, antitrust plays in the teaching of business strategy. It is our hope that this session on business strategy will answer some of these questions. In particular, we hope holding this session will enhance the antitrust agencies' understanding of business strategy that is taught business students and how strategic business thinking might inform our analysis and evaluation of the competitive implications of certain types of conduct.

So, with that, let me tell you a little bit about the first of our speakers. That is going to be Professor David Reibstein, who has been at Wharton since 1987, and in addition to his current professorship at Wharton, has held a variety of professorships and administrative and adjunct positions. He has been actively involved as a consultant with a number of major companies. Notably, Bud Selig, the Commissioner of Major League Baseball, appointed Dave from 2004 to 2006 to a Blue Ribbon Special Task Force working to address the issues facing major league baseball.

Dave has also been featured in Fortune Magazine as one of the nation's eight favorite business school professors and was recently named by Business Week as one of the cream of the business school crop of professors. Dave has received teaching awards at Wharton every year he has taught since joining the school. He has recently co-authored the book Marketing Metrics: 50-Plus Metrics Every Manager Should Master.

He also co-edited Wharton on Dynamic Competitive Strategy, and has co-authored a book, Marketing: Concepts, Strategies and Decisions, and Strategy Analysis with Value War, and Cases in Marketing Research, and is the author or co-author of numerous articles.

I might add that for complete biographical information on Dave and other speakers, it is in the handout that is available on the table out front, and also can be found on the FTC and Antitrust Division Sherman 2 hearings web site.

So, with that, Professor Reibstein, welcome, and we look forward to what you have to say.

DR. REIBSTEIN: Thank you for inviting me to be part of this panel, and I must confess, it is not totally clear to me why it is I am invited to be here. I say that because, you know, I just am a professor of marketing, and I teach marketing, and I do not know exactly what its real role is other than I have been asked to come, tell us what it is that you teach, and part of my view is I cannot do that unless I have a semester, but I have been allotted only 20 minutes, and I will talk about that.

It is also the case I have worked with a number of businesses, and I have worked with them on their marketing strategy, although it does not surprise me in the introduction, the only one that is picked out is, "Well, let's talk baseball."

MR. ELIASBERG: It is that time of year.

DR. REIBSTEIN: It is that time of year for sure and it is always fun to talk about.

So, what I am going to talk about is I am just going to give a little bit of overview of what it is I cover in my marketing strategy course. That is the area I was told is of greatest interest. I will spend a little bit of time talking about what it is that sort of are general approaches to the topic area, and then I thought, well, I might as well take the areas that might be most controversial as it might apply to the Department of Justice and Federal Trade Commission and at least put a statement around of stating what it is that is a philosophy that I teach my students.

What I will also say at the outset is that at The Wharton School, we have a course that is required of all of our students, you cannot graduate from The Wharton School without taking a course on business ethics, and within that course, everybody is exposed to all the issues that might pertain to legal practices of business and trying to provide an ethical perspective, so that there are issues that go beyond the law that one needs to be sure and question and make sure that one is incorporating in their everyday life and how everyone goes about practicing. That is not part of my course.

On the other hand, I do feel the responsibility as a professor of marketing and when I am talking about marketing practices and how I think about marketing strategy, one needs to pause and incorporate any perspective of what one needs to at least question doing and where there might be some legal boundaries to the degree that I understand them, okay?

So, just, you know, my view of marketing strategy, marketing itself sits between the company and the customer. It really is the interface between the company and the customer, and therefore, has a major responsibility of making sure that -- and what we traditionally think of as marketing, is making sure the customers understand what it is that we have to offer to them, often viewed as thinking about marketing in the role of its advertising.

I also -- I do not state it that way. I state it as being an interface, because I think part of the responsibility of marketing is making sure the communication goes the other direction to the company, from the customers to the company of what it is the customers really want.

The objective, then, once the company has the knowledge and familiarity with what it is that the customer might really want, is to try and satisfy them and do so better than others, better than the competition will, and to do so while making a profit, and that becomes some of their particular objectives. So, they have a marketplace objective of satisfying the customers; they have an objective for their shareholders of trying to maximize their profits.

When I talk about marketing strategy, it is looking beyond the tactics that one needs to use on a day-to-day basis or a quarter-to-quarter or maybe even year-to-year basis, but more taking a long-term perspective and trying to think through, you know, where are we trying to go? What is our objective? What are we trying to accomplish? And then what is the pathway for trying to get there? And it should set the principles for guiding all the particular tactics.

You know, I feel a little bit silly standing up here talking to you about this, because A, this seems fairly fundamental, and B, then you would be enrolled in a course of marketing strategy, but I am just going to give you an overview of what it is I intend to cover.

There are different paradigms that exist out there in the field of marketing strategy. The one that is probably the best known is Porter's Five Forces. Many people would contend that is broader than marketing strategy and it is sort of business strategy, and undoubtedly, marketing strategy is a subset within business strategy, but most of what it is he talks about, not all, is it really infringes upon and covers a strong part of marketing as well, so I mention it up here.

It is hard to talk about marketing strategy without thinking about the competitive advantage, and generally, you know, there are views that there are two basic forms of competitive advantage. One is a cost-based one. That is, we have lower cost structure than our competition, we have got that, and there is a variety of ways that one could try and acquire that; or we have in some way differentiated ourselves for a particular segment and are able to appeal to that particular part of the market by offering something different than what the competition is offering, and we often do that by having some unique capabilities that allow us to do that.

There is an overall view about what I am really looking for is superior performance, and I am going to break each of these down a little bit. Superior performance can come in a variety of forms, and I will lay that out. And then sort of this notion of value leadership, but I look at those four bullet points and say these are just -- they are general terms to be thinking about.

This is just the Porter's Five Forces that I have up here, and many of you are more familiar with this than I am, and it may be, you know, having some supplier power, that there is some concentration in suppliers. An interesting one is trying to think about barriers to entry. To me, there are many barriers to entry that one can establish within marketing, and one often tries to create those to try and minimize some of that competition, and I recognize there are some dangerous terms I just threw out there, you know, barriers to competitive entry and trying to avoid competitive entry are potentially very dangerous things.

There is also this notion of buyer power, and buyer power is related to, you know, I get to be so big and so strong that when I am dealing with any of my suppliers, I have some real advantage, because I am an important customer, and I can help influence what it is that my competition will do. And there is also this other philosophy of substitutes, that there is some switching that may exist, any of my customers may switch, and what I often think about are what are the costs to any of my customers switching and how do I try and minimize some of my customers switching to another competitive product.

It is a general philosophy, and frankly, I do not talk much about this. Part of the reason I do not talk much about this is because I teach a capstone course in final semester of our students, and they probably have heard this about four or five times before, so they get about as much coverage as you just got from me. Instead, you know, I will spend time thinking about competitive advantage, which could, as I say, happen from lower price, lower cost enabling lower price, but it could be because I have got a superior product or a superior service. Sometimes that can be protected through intellectual property, and I add the opportunity for that.

One that we do not often think about, but I spend a fair amount of my time thinking about it, is by having a really strong brand and having what is often referred to as brand equity. In marketing, competition can match almost everything that it is that we do. We drop our price, competition can match the price; we increase our advertising, competition could increase their advertising; we extend our service, we add product features, et cetera, et cetera, and almost always competition can match that.

The brand belongs uniquely to us, and it is something that if we can build up perceived customer value in our brand, it really helps lock customers in to us, and that works to our advantage, and I do not shy away from talking about that within my classes.

Distribution is an opportunity for some competitive advantage. If I can find the key distributors, if I can occupy a dominant part of their shelf space, that is a competitive advantage that I might have.

And the last thing I have up there is sort of owning customers and trying to think about loyalty programs that we see everywhere and the notion of what is it that we do to try and enhance and reward our customers when coming back. One that is not talked about very much in terms of owning customers, and I think it is going to become a bigger and bigger issue, is customer familiarity or intimacy -- those terms used a lot -- but I am really thinking now about familiarity because of the data that we have about our customers, and we can think about an Amazon, who has a customer and a customer record of what it is that they have bought, and they can now use that for trying to get the customer to come back.

We are going to get better -- we, Amazon, are going to better serve our customers because of what we know about each of those particular customers, and that really gives them a competitive advantage, and people will be hesitant to switch to another brand or another, you know, online bookseller because of the detailed amount of information that a company might have. All of those -- and I put this out as just a general philosophy.

This, by the way, is -- a colleague of mine, very well known, who teaches another section of the marketing strategy course at The Wharton School is George Day. He talks about achieving superior performance, talks about it by positions of advantage that one could have, positions of outcomes and performance of outcomes, and sort of what some of the sources of advantages are, and I wanted just to put this up so that one could see this.

And then there is sort of -- he talks about three ways to provide value. One is by price, and one is through the relationship, and one is through performance, and that generally is performance that is superior to our competitors' products. And basically the decision is you have to decide which of these three it is that you are going to be. Many people strive to be all three. It is often difficult to be excellent on all three. So, you generally say, I am going to go out and be the low-cost provider, or I am going to know my customers better than anyone else knows them and know how to serve them better, or I am going to go out there with a superior performing product. Three different approaches that could be combined to various degrees. I am not an advocate that you can only be strong in one.

I thought -- actually, I was asked, you know, so, how do you go about teaching this stuff? I have lectures to talk about it, and there is lots of cases, which are cases not just of what has happened historically, but try to have, you know, current cases where you put students in the position of, you are in this position for this business, what are you going to do, and they are all real life cases, and we go through a dialogue trying to walk through how to think through the process of what one should do, and then we have some discussion and debates about what would be a logical step to take from this point forward.

The other one that in some of my pre-conversations stimulated a lot of conversation was the use of simulations. I use simulations a lot in my marketing strategy class. Actually, in the Intro to Marketing course offered to all students at the MA program at Wharton, we put them all through a marketing strategy simulation that I help manage, and in that, we take our students, we break them up into groups, we assign them to teams, and they need to go out and try and compete against each other and try and win the customer's favor, and that is all they do.

In all instances, what I talk about through any of these three approaches is I spend some time, you know, trying to talk about improving one's position, which could be through sales, it could be through market share, but ultimately, it needs to be by increasing the overall profitability of the firm, and that often happens through improving your customer satisfaction and improving your customer loyalty, and I find any time I talk with a group of lawyers, those terms seem to get people's attention when we talk about, you know, customer loyalty, customer satisfaction, striving for increasing of market share.

The simulation is one that if there is a market that has, you know, a product life cycle, goes through its growth, some hypothetical product called the Korex one, and there is a new market that will emerge if people elect to go into it, and the different firms that the students represent are allowed to collaborate with their competitors for licensing agreements of IP and for doing some joint ventures, and they can do that across a variety of technologies, and they operate in an economic environment that is a growing environment, has inflation, and a risk of antitrust intervention.

So, if they are seeing -- and by the way, this is a slide that is shown to my students. This is not something I have put together for this. It is put out there very clearly, you know, there are things that you can do which are inappropriate, and I am going to go into that in just a second, but you need to go and operate and try to do the best that you can at increasing the value of your simulated firm within the confines of the law, and all the competitors are open for bringing actions against them. It is not just that I as a professor play that role of the policeman.

This is another slide that I show which really tries to highlight, they have got intense competition, and you have got to be aware of what the competition might be trying to do to you, and I will try not to make any comments obtain taking a bite out of the competitor's market share or position at all.

And the last slide that I am going to show you that I put up in front of the students is, again, talking about collaboration. So, there are some guidelines that are provided for students on that, and it makes it very clear, you know, that they can, you know, do agreements for licensing and joint venturing. There is going to be some royalties that are paid from one or another.

One of the things that it is inappropriate to do is to agree on how one will go to market. One can agree on IP and how it will be shared, and one can agree on licensing arrangements. One cannot agree on prices. One cannot agree on you go for this market and I go for that market, and that is a stipulation that is made very, very clear to them of what it is they are about to do.

Now, I thought what I would do is highlight some areas that -- I was trying to figure out what -- you know, why in the world you were having me here, and I am going to highlight some of the things that are on there, but always the focus is we want to acquire customers, and we need to figure out how to acquire them, and some of that is going to be by getting nonusers to start using our product. It could also be by acquiring customers from our competition, and those sort of take different approaches. So, that is one task of acquiring customers.

The second task is how do we retain customers, and that is, you know, done generally by satisfying them, and if we satisfy them a lot, there is some good, strong, empirical evidence that very satisfied customers tend to be very loyal, and so the real key is keep customers happy, and that is going to lead to greater levels of loyalty, but they will not always be happy if you are doing the same thing, so you have to be continuously improving, and improving on what it is that you are learning from customers is important, and I thought, well, it has got to be done where you improve and you satisfy your customers better than the competition does. So, I have that in there as well.

The general principle is that retaining customers is even more important than acquiring customers, because if you acquire them and it is a leaky boat, then you will just have to be continually replacing them, and in general, there is, again, some good strong empirical evidence that retaining customers is orders of magnitude cheaper than it is to acquire customers, and so the real key is how do we satisfy these customers and keep them coming back.

Here were the issues that I thought, well, what would this group potentially be more interested in, and so I thought, given what we are talking about, the topic of the day, I should talk something about monopolies. I will tell you I am an advocate of local monopolies. I have to be clear on my definitions of that, and by local monopolies, what I am really referring to is identify a segment of the market. Do not treat the market as an overall market. Identify a segment of the market, understand them better than anyone else -- and I have got to be careful not to say "own" or "dominate" or "monopolize" -- but establish a very, very strong position with those customers, okay?

By being very focused, you can satisfy that set of customers better than people that are not focused on that set of customers, and the example I cite to often just for illustrative purposes is you can look at the toothpaste industry and say, well, there is lots of different brands all out there competing for people brushing their teeth. If we are the ones that are offering smoker's toothpaste and we develop a toothpaste that is going to be better at removing nicotine stains, then we could have a product that is going to satisfy those customers more.

The fact that it is a relatively -- I do not want to say dying segment, but small segment, allows us the opportunity to appeal to that segment when others might say there is not room for a second one who comes in and specializes in that market, and I will confess that I am an advocate of trying to get very good at doing very well within a particular segment, okay? And that is one position I take.

Another thing that I spend a fair amount of my time talking about is anticipating competitive response, and basically the position that I take on that is before taking any move, one should anticipate what one's competitor's moves are going to be, and also assess, and how are those competitors' moves likely to change and be altered by the action that I take? And if I would take a particular action, there is probably going to be some response to it, and I should take that into consideration in advance to my taking some particular action, rather than take an action, look at what it is they have done, and then say, "Oops, now I need to respond to that."

So, my position is build a likely competitor's actions and reactions into our strategy and into our plans before we act, just that simple. There are some game theoretic perspectives that are probably brought into this as well.

Predatory pricing, I started to say, well, we all know predatory pricing is illegal, and I said, no, we are going to talk to this group and say, predatory pricing may be illegal, and the key part of that is "predatory," and somebody defined for me predatory pricing recently as predatory pricing is pricing below cost, and actually, for the most part, I have got to strongly advocate against then, but I think there are some exceptions that one could make as to when one could potentially price below cost.

In general, it is not very smart, because it is hard to make money when you are pricing below cost. In general, when you lower your prices, your competition turns around and lowers their price, so if you couple this with the slide I just showed you before, all you are doing is bringing the market prices down, and so that works to you and your competitor's disadvantage, and yet there may be some times, particularly when you are starting out, that you may want to have a very low price on a temporary basis to build awareness, to build some trial, to build some traffic, or in some cases, to help sell other products.

Now, I recognize, by the way, that as I am talking about this, I wanted to just put myself out there, recognizing I may be removed in cuffs, that, you know, these are all dangerous topics, but I thought it is best to sort of hear what it is that students are hearing and perspectives that they are taught, and they are made very aware of, you know, some applications of the Robinson-Patman Act and some concerns about anything that might be predatory with respect to trying to drive competition out of the market and that there has got to be some rules and regulations against that, and certainly against dumping.

We often think about that being brought against many of our companies rather than being the doers of dumping, and I must confess, I have never advocated anybody doing any dumping or suggesting that that would be a good thing for any of our students to do.

Then the last thing I will put out here is collusion, and you saw what it is that we talk about within the simulation. We certainly make it very clear you cannot collude on price and you cannot collude on who goes after which market, and those are the things that I really try and cover in the courses that I teach, and I hope this gives you some perspective of what happens at one course in one business school as approached by one professor.

So, that is what it is that I hope to try and do with the notion that the goal is to serve customers and build better capabilities and deliver the better value to your customers.

So, thank you.

(Applause.)

MR. ELIASBERG: Thank you, David.

Our next is Jeff McCrea, vice president of sales and marketing group at Intel Corporation. Jeff earned his MBA from the University of Michigan in 1991 and received a Bachelor's Degree in electrical engineering from Duke University in 1987.

Jeff has held several marketing management positions since joining Intel in 1991. Most recently, Jeff served as co-president for Intel Americas, Inc., where he was responsible for all sales and marketing activities in both North and South America.

Welcome, Jeff. We are very much interested in what you have to say.

MR. McCREA: Thank you.

Well, if you are kind of wondering what I am here for, I guess I am the single firm today to talk to you about the single-firm approach. What I wanted to do today was talk a little bit differently -- I know that my colleagues will talk a lot more about what students are taught. Instead I thought I would give you a bit more insight into our business, and more importantly, I thought I would do that through a particular case, and what I am going to do is I am going to talk more about our Centrino mobile technology.

Let me start off by suggesting if you look at Intel's business, I am going to talk about our core business, which I think all of you are familiar with, which is our microprocessor business, how we build and support the industry of PCs. Clearly any user who owns a PC today, if you look at mature markets like the United States, you have to have a reason to go out there and buy a new one, and that new one is either to replace the existing one or to add another PC, and that is how we pursue our business, and the way we look at it, the vast majority of the growth in this market particularly is going to come from that.

So, you kind of start with the basics, well, why would anyone want to do that? And the simple answer and the most obvious answer is that they really upgrade just because they can do something new, and that is because the one that they have no longer does something that they want to do. So, a lot of what we spend a lot of effort on is trying to not only figure out what else they can do with it, what are they going to value, and most importantly, what are they going to pay for it?

Through the course of the last 15 years that I have been at Intel, we have done a number of things which is part of our long history of developing the market, which is working with the industry on developing I will call them complementary technologies, and you can think of these things as everything from new interface buses within a PC, things like PCI. You all are probably familiar with things like USB, if you have ever used a USB key or many different devices, your iPod plugging into a PC.

We have been developing that with the industry for many years in terms of how to bring it to market, and the net result of that is it is a benefit. By bringing these new capabilities to the platform, if you will, now the user has a new use for that PC, and ideally, it is going to take advantage of your new capabilities of your new products.

So, like everything at Intel has a three-letter acronym, CMT is our Centrino mobile technology. If You have looked at your PC recently, you probably saw a little butterfly-looking logo on it, assuming you have a notebook -- and if you do not, there is a Best Buy down the street -- and what that is is this is a pretty good shift for us in the way that we went to market, and I will talk a bit more about that.

Centrino, unlike all our previous Pentium generation products, is a combination of three things. It is a microprocessor, it is an Intel chipset, which is the core logic that enables the microprocessor to talk to other components in the PC, memory, et cetera, and it is also an Intel wireless product. So, the only way you can get that logo is actually if you have all three of those components in there, and that is one of the things that we require of our customers before they go to the market.

The real use or the intention of this was for several things. Number one is that Centrino was delivered -- we believe it was a radically different usage model to what people had seen before, and this, just to take you back, this was introduced in March of 2003, so relatively recently, and at the time, you know, this was the first product that we designed from the ground up for the notebook segment. That included, you know, just a stellar microprocessor. The architecture was a break-through technology for us that really enabled several things, including, you know, thinner and lighter notebooks -- I will pick this one up, although this one is not exactly thinner and lighter, but it is a lot better than most of the ones you had previously seen, which were Bodeckers (ph).

Secondly, it had much longer battery life, and most importantly, which is what we spent a lot of time marketing, was the ability to connect wirelessly, and I will talk a lot more about what that really took in terms of creating that ecosystem in wireless.

So, to do this, to create that value proposition

I just talked about, we had to do several things. Number one is we had all the three components that we had already developed, but this was a pretty radical shift for us. In the past, at least since 1993 when we introduced our first Pentium processor, all of our products were really focused around the branding of just the microprocessor and the PC. If we just called it Pentium, in fact, this PC has a Pentium, which is actually the processor that is inside there, it is the same exact processor that is in our Centrino, but it does not necessarily have all the other components, and by branding the Centrino, what we were able to do, and bundling, if you will, these three pieces, we were now able to talk about that usage model.

If we were just talking about Pentium, we could not guarantee that it had wireless in it, or more importantly, that it worked seamlessly. So, we did a number of things to do that. So, first of all, branding was a key component to be able to get really unwired for this usage. When I say unwired, it had to be not only not having to plug in to get connectivity, but also long battery life so you did not have to plug in literally to the wall.

What we did was we did several things that were really done in the background. One of them was doing a lot of work on validation. When I say validation, we validate all of our components just as a standard course of business, making sure that they work and they do exactly as we specify, you know, that is kind of natural. What was unnatural in this, we literally spent tens of millions of dollars to do, was ensuring that this worked seamlessly with other components that the user would want to take advantage of, for example, other wireless routers and access points, in particular, as well as validating with other software, so we did a lot of intraoperability testing of components that did not necessarily have any of our silicon in it or any of our software in it, but we wanted to make sure that, again, the user had a better experience, so that when they opened it up, it just worked. What a novel concept. Again, how do we create that value proposition?

So, to that end, we still looked at, what do users actually want? Number one, high performance was clearly key, and as I have talked about previously, we had always taken our desktop processors, made some I will call them minor changes, although they were more than minor, to make them work in a notebook form factor, and a lot of times we had to trade off less performance to be able to get that.

With this product, it was very different, and that was because it was designed for this, and we were actually achieving at the time desktop levels of performance and would fit into this different form factor. Having that seamless wireless connectivity, being able to connect anywhere anytime, was something that is pretty much with a notebook today, I call it the new normal. Once you are able to connect wirelessly, you never even think about plugging in again, right? Being able to get your information anytime, anywhere, and it sounds like it is pretty easy today, but at the time, you know, it was a pretty novel concept, and it sounded interesting, but it was very unclear that the users actually would want that or, more importantly, pay for it.

Long battery life, since you are actually now connecting wirelessly, you certainly do not want to be tethered to your desk or to the nearest plug. You want to be able to take it with you, if you were taking notes in a room or taking notes at a park bench, to be able to get outside and get some fresh air, out of this building.

Other things, back to that, again, when you are start carrying around, all of a sudden, you want to make it better and lighter, so again, you go to the gym for your exercise rather than carrying a notebook around.

So, how do you take this and get more mobility, take it with you wherever you want to go.

So, to do this, we looked well beyond just our products. We looked at what we call ecosystems, which was all the other players around us. I talked about wireless hot spots, and anyone who travels, frankly, I take for granted, you can always get connected at the airport and download your files when you are across the country. Well, literally three years ago hot spots, if you can remember, were not only not pervasive, they were not common, and it was pretty rare you saw one. So, we worked with service providers, actually physically we worked with the airports, people like Marriott, the hotel chain, and then retail establishments, to go in and establish, you know, a network, if you will, of hot spots, to enable that connectivity.

So, it was just a ton of what I will call heavy lifting in the industry. In fact, we spent a huge amount of money and effort to go do that, because again, you had to go and create that market. Obviously without that, you know, who cares if you have wireless connectivity? You cannot connect anywhere, right? So, how do you create that to enable that value proposition, working with a number of partners?

And the other side of this is that we also spent hundreds of millions of dollars to go promote the new brand, and most importantly, that capability. That was important not only for us to be able to, again, garner that value proposition, but more importantly, and create that brand that the Professor just talked about in terms of that brand value, so people can recognize it and they can similarly make that connection and understand, it is in there, and it is just going to work, but as important, it is for our partners.

So, knowing that we were going to go out and talk about this new usage model so that the average consumer could actually understand that, hey, this is now here and I can do it. We did several other things in terms of doing everything from what we called mobile experience zones, which were putting in place, you know, wireless notebooks in airports, among other places, where we just literally had some people that could actually see it and experience it, see what it was like to actually use it, and most importantly, see how easy it was to do.

So, one of the things I was asked to talk about is how did we come up with this decision to go down this path? This was a pretty radical departure for us and a pretty big gamble if you think about it. As I talked about, we had this product which frankly we knew was exactly what we needed from a notebook market standpoint, from a processor standpoint, but we had very little experience in the wireless arena, and actually, this was a brand new product for us, so we had to come back and we had to develop a whole new product that was going to be part of this, because the only way that we could validate and make that promise, again, is that we knew it was going to work, again, back to our brand promise and our ability that we wanted to ensure that the quality is there.

Other technological challenges. Well, if you are just introducing a single product, you know, complexity is death, right? You want to simplify everything. You now suddenly have three different components, you have got tight schedules, you have got technical risk in terms of are they all going to really work together, are they going to perform at the same level, are they going to perform adequately with each one.

Branding, I talked a bit about, you know, there was huge, huge brand equity in Pentium. I think everyone hopefully recognizes that very quickly. When you think about it, though, Centrino was going to take a huge amount of money to brand something else, and you could argue, hey, why don't you put both brands on it, but again, that just creates confusion. So, we had to take a business risk in terms of choosing to do that.

And then finally, I talked about these large investments on hot spot enabling, co-marketing with many partners. We did this intra-operability testing and we had this huge advertising budget. At the end of the day, we spent an awful lot of money, and is it going to pay off? Are you going to get a return for that investment?

So, obviously we made the big bet. We bet it was going to succeed. You know, when you look at this, it was a longer term bet. This is not a -- you do not go back. So, the intent is that you now suddenly have to think about all these components and all these pieces going forward as part of the overall platform and ensure that that is going to keep up.

We had to make sure that wireless was actually going to deliver the experience, you know, betting on a new engineering team, as well as, hey, are you actually going to be able to grow your market, and specifically the notebook market.

The other piece I did not mention that I probably should have earlier was that, you know, in fairness, we do not do this out of the goodness of our heart, you know, we are in business to make money. So, one of the keys of this product was also this is one of our premium products, so our goal here, too, is to actually shift our mix up to enable people -- to give them that better experience with the Centrino, and plan on and hope that they will pay more, so, in effect, will Centrino increase our revenue as a result of doing this, but by focusing people on these added benefits, arguably, they will pay more at the end of the day.

So, obviously the bet paid off. For us, it turned out to be a phenomenal seller, continues to be. It continues to be a strong uplift for us on our overall sales, but I think as importantly, if you look at the notebook segment today, it is grown dramatically versus the desktop segment, and we think that is one of the results of doing this, which actually helps all of our customers, as well as enabling these other usage models and these other revenue streams for other service providers and other components around it. So, you know, we call it the Centrino effect, if you will, which really lifted all boats around us, and I think the result is pretty clear.

So, today, wireless computing is ubiquitous, you know, two years after a huge investment and a lot of time, and obviously you will see what is coming next from us shortly.

Thank you.

(Applause.)

MR. ELIASBERG: Thank you very much, Jeff.

Our final speaker before we take a break and then begin our round table discussion is David Scheffman, a director of the consulting firm LECG and an Adjunct Professor of Marketing and Strategy -- excuse me, Business Strategy and Marketing at the Owen Graduate School of Management at Vanderbilt University, where he was a chaired professor from 1989 until 1998.

He created and taught the business strategy curriculum at Owen, at the Owen School, and continues to teach one course a year every other weekend in the fall, so I guess we are in the middle of it right now, on business strategy and the Executive MBA Program and has won a teaching award for this program.

Dave is a noted scholar in the area of industrial organization and antitrust economics, among others, having authored several important articles and books on topics such as market definition, merger analyses, analysis of the various injury and vertical analyses. He also has written on, taught and consulted on issues involving business strategy, marketing, pricing and intellectual property.

Dave, thank you for coming, and we very much look forward to your presentation.

DR. SCHEFFMAN: Okay, thanks. It is good to be back. I have got my usual audience, usual small audience. I can tell I am not in a business school, because probably you cannot read the slides, which should be, you know, you bounced out of the school immediately if that was true. Your students would revolt, and you do not have good sight lines and comfortable chairs and hookups for your computer so you can search the web while I am talking. All right.

A little bit more about my background. I started out as an economist, and I taught Ph.D. economists and did research in theoretical economics before I happened to come on leave to the FTC in 1979, a very exciting time at that time, because I remember we were trying to break up the cereals companies and DOJ was trying to break up IBM, and we were investigating the auto industry and stuff. I will talk a little bit about that.

Then I came -- I was here for a really exciting time, which was with HSR and the Reagan Administration and the change in merger policy, and we actually had horizontal mergers to look at for a change, because we had not for many years, because most horizontal mergers were blocked by the Government and were not attempted, so because of HSR, we got to look at all sorts of industries. It was really very interesting, and I learned a lot, and a lot of us that have been involved in industrial organization in that period learned a lot, and what we learned is, gee, the real world of business behavior and competition is just a lot more complicated than our simple models.

I worked on, I was lead staffer on one of the last real oligopoly cases, the ethyl investigation, which the companies actually did behave like a real oligopoly as they priced -- as they largely priced in lockstep and had uniform prices, which is that they fit very well a standard economic model of oligopoly, and the FTC challenged that and argued that that was because there were certain practices they were engaging in, and the FTC lost that case, but what was striking about that case is I have never seen another industry since. We had a number of other investigations at the time that I was involved in and looked at similar industries, and none of the rest of them looked like that. So, none of them looked like a classic economic model of oligopoly.

So, I spent a lot of time, most of my time in the eighties was spent looking at mergers. I learned all sorts of stuff, where I learned facts and saw all sorts of interesting things, and then I went to

Vanderbilt, where the dean was an economist, and said, well, you can come in and, you know, kick off our business strategy program, and I said, what? Well, I am a Ph.D. economist, and I have learned a lot about competition, so I can do that.

So, I went in and, it was not overly successful. As David can tell you, teaching MBAs is a very challenging task, and I had to -- you know, I taught it and actually dropped out for a year, and I sat in on some things, and I read a lot of material and everything and I thought about it, and then gradually I got it right. So, actually, my course is -- I will give myself a plug -- is usually the highest rated course in the program, and that is in part, as David will tell you, anybody who can do a good job teaching strategy is going to get high ratings, because it is what students come into the program for. So, if you get it right, you know, they are going to like you.

But I think I did contribute a lot, because I think I do get it right, add value, particularly -- now, I still -- the only thing I teach these days is executive MBA students, which I delight to teach, because they are actually on the job. MBA students, even though they have a number of years of business background before they come, that is the requirement in any major business school, you know, a couple weeks into the program, they have forgotten about that entirely. They are back in school, you know, you try to engage them about real stuff, and they say, what is on the exam and how are we going to get a job? But the executive MBA students are wonderful, because they really take it seriously. The problem is sometimes they take it back to the job and apply it. So, that is my background.

So, when I was called by Pat to do this, I said, gee, this is great. I have done both these things, so I can talk about this. Well, then actually I thought about it, and I said actually it is going to be difficult to figure out what I would say. So, I am going to tell you what I do have to say.

First of all, because I want to say a number of things critical about Section 2 and Section 2 enforcement, Section 2 is -- I have been an antitrust enforcer for many years, I believe in the antitrust laws, and Section 2 is important, but the context here is most markets have become increasingly competitive over the past 25 years, and it is strikingly different from when I arrived at the FTC in 1979 and now today.

If you think about the auto industry in 1979, think about IBM and, you know, things change so fast because of globalization, because of technology, because of information, because of sophistication of customers, because overwhelmingly competition in almost all markets is about a product now, in the real sense, not like in the 1950s auto industry, they come out with a new model each -- a somewhat changed model of each other. The competition in most markets, even in industrial or commodity markets is overwhelmingly about product these days. So, it is not an economic climate conducive to coordinated oligopoly behavior, which is what we learned about as economists in my day, probably still do.

Section 2 is important under the purpose -- the real effect of the antitrust laws, an important effect of the antitrust laws is deterrence, and I think deterrence largely works. I am concerned that if it works too well. I see a lot of counseling as a business consultant and in other ways, seeing companies being advised not to do stuff that I wonder why they are being advised to do that other than having been an enforcer, I can understand that particularly the risk of not enforcement but private litigation is a significant deterrent to otherwise, you know, procompetitive activity.

Federal enforcement policy has advanced a lot in the last 25 years, I think in a permanent way. I think we might -- you know, a new administration might be more aggressive than the current administration is, but I cannot imagine going back to the 1970s and trying to do things like break up the cereal companies or IBM or things like that. I think this has come because of a learning experience, an experience in litigating and very fact-intensive cases, like the cases I talked about, and other -- and lot of learning from HSR and mergers.

The beauty of Section 2 enforcement, as I have written, is that, you know, for most real Section 2 violations, you are going to have a lot of complaining parties, and so you do not need to worry about finding Section 2 cases. The real problem is finding the ones that are worth pursuing, which are far less than the ones that come to your door.

Clearly economic theories have a very important impact on Section 2 law and policy, but there are limitations to economic theory. I am an economist, but, you know, I had a very good marketing professor colleague at -- who was -- went to the Sloan School, an economics-oriented business school, but they all are these days, and he wrote a book that said everyone in marketing or business should learn some economics, just do not learn too much, and I think that is right, because what economics is good at and is very good at gives you a very limited slice of what business behavior and conduct is about, and it is difficult actually with an economist, strong economist mind set, to get out of that and try to understand.

I remember once seeing in a document in a merger, a company -- they were considering the strategy, this was a branded product, they were going to raise the price of the product, use the money that they got from -- the extra profit they got from raising the price to do advertising and promotion, and as a result of that, they thought they would be able to increase the sales of the product. Now, that is a pretty foreign idea to an economist. I do not think it is a foreign idea to a marketing professor, which takes into account that price is just one of the four Ps, and two, most product lines and businesses are largely self-financing, so if marketing wants to do something, they have to come up with the money somewhere, and this was their idea of how to come up with the money.

Okay, limitations of economic theory. The power of economic theory for antitrust is in market power models and the model of monopoly and oligopoly and other sorts of things like that. That is the economic basis of antitrust enforcement, but economic models largely totally assume away all the important businesses considerations. They assume there is a product. They assume there is a demand curve. And the issue is, well, choose the price on the demand curve.

Well, that has very little to do with real -- it has something to do, but it has very little to do with real business behavior, especially these days, which is speaking about what products should we have, what can we create, what can we introduce, and who can we find to buy them, and how, how do we get to market. So, real world products and companies have to create and modify products and services, they have to find customers, they have to try and sell.

So, the demand curve is that convenient construct, and it does tell you something about pricing, which I think any marketing person would agree with, but it is not -- a demand curve is not -- it is a result fundamentally of business and marketing strategy.

Also, a great puzzle to economists are that, you know, production and cost curves are things that just exist. They result as the existence of what happens inside a firm, and what we have seen, great revolutions of that in our economy, for example, the so-called Toyota manufactured cars and other sort of consumer durables fundamentally, you know, fundamentally revolutionized automobile production. You could actually produce higher quality cars at lower cost than what at the time -- in the 1940s, say -- was the GM approach, was clearly, as far as we knew, the most efficient way to do it. It was no longer -- it was no longer efficient to do that. So, competition on costs and production techniques is very important and cannot be taken as given.

I think a real problem with economics is that although there are dynamic models of competition in firms, in reality, they are really static and a snapshot of economics is static, and competition these days in all markets is not fundamentally dynamic. It is about developing new products, new services, new technology, new capabilities, et cetera. I am not saying that, you know, that the static view is always wrong, but let's say I think that it gets us into trouble in Section 2 when we try and apply Section 2 sometimes, particularly in high technology markets.

The problem with economics is there is very -- I think there was a session I was not able to attend on empirical analyses for unilateral conduct. I do not know what it said, but I think I know the literature, and I think the answer is there is very little. There is very little credible use for economic -- empirical economic research. There is a lot of research -- there is a lot of research on business strategy, not of the sort mostly that economists would do, but very insightful, and I will talk about that a little bit later.

So, what is the relationship between business strategy and economics? Economics provides a lot of tools. The tools for profit maximization, that is consumer demand and the cost curve, and the lessons for profit maximization are profit-maximizing capacity, expansion of R&D expansion or whatever, tools for analyzing competitive strategies, equilibrium analyses, really important, which is -- that is a really unique contribution I think of economics, of understanding -- and game theory is part of that, but understanding that -- you have to understand how the interactions of the various actors in the competitive arena you are looking at, what the outcome of that is, and economics is really plus game theory, and the use of game theory by economists have really been the main contribution to that.

Fortunately, the tools -- economics has very limited tools for analyzing the efficiencies or business justifications in the sense we use in antitrust, either in mergers or in Section 2.

What is the discipline of business strategy?

Well, it is largely multi-disciplinary, largely case study and industry study focused, very rich in facts. It is very interesting because if you look at what industrial organization economics was in the fifties before it was taken over by the theorists, it was exactly that. It was some combination of Professor Smith's and Professor Reibstein's combination of marketing and history and use of economics, case studies, and was what industrial organization economics largely was, and then it was taken over by the theorists, and now we are somewhat coming back, but as consultants, unfortunately, rather than as active academicians, because we usually cannot publish the results when you have proprietary information. So, what we do now as antitrust consultants is we do a lot of case study analyses, apply the tools of economics and other tools.

The practitioners of business strategy, when I went to graduate school in economics, there was not such a thing as business strategy really. I mean, there were people, but the people who invented business strategy somewhat after that, which were Bruce Henderson, my departed colleague, who actually started The Boston Consulting Group, and Michael Porter, and a number of others, and this -- I was lucky because about the time I went to Vanderbilt in the late eighties, business strategy began to become a real discipline -- it had been for a while, but it became a real discipline and actually has made great inroads since that time, and practitioners in business strategy have typically been marketing people. That is probably the typical person who teaches business strategy. I think the original people that taught business strategy were often organizational theory people or, you know, people with general business background, and then the economists.

We economists got into it because we said, well, we know about strategy, so you increasingly, including at Wharton in the business -- in the business strategy area, you have a lot of economists floating around, I think with -- and more and more Kellogg probably teaching business strategy in other places, like me at Vanderbilt and others. So, it is a very fertile field in which a lot of lines of research are done.

What does it do? Well, what is accomplished, I think, is, you know -- which it seems trivial but was actually quite important, which was to analyze and flesh out the rules of value creation, value appropriation, and I will talk a little bit about that, really understanding in a way relevant to real business and real business behavior how value is created and how value is appropriated, what the bases of success are, develop the template and tools for strategic analysis.

What is taught in the typical business strategy courses? Not antitrust. Certainly if anything is broaching on collusion or anything pop up in class, we certainly say do not do that. I teach -- antitrust issues come into my class, I teach a case about the breakfast cereals industry in the eighties, which was somewhat based on the FTC cereals case, but the emphasis entirely is on business strategy, and the context of the FTC was investigating the industry, so we spend very little time.

That is not to say any good business school program will have an ethics and business law program, so they will warn people about antitrust, but it is really quite striking how little -- the learning of antitrust, how little use it is really for actual business strategy.

Okay, business strategy learning teaches us that, you know, what the basic conditions are that are necessary for sustainable competitive advantage, and probably you cannot see this unfortunately, but a sustainable competitive advantage means that you make a very good return on your invested resources compared to what your opportunity costs are, and in simple terms, I think what I would articulate in a business strategy session is you have the right combination of resources and capabilities, and you put them together in a way to develop and get to market products and services in a situation where you are somewhat limited from the competitive forces. That is a positioning.

You have taken something that can create significant value for downstream customers, and you get the contribution of significant parts of value, and the key part of that learning is you have got to be in a situation where it is not a commodity type competition. So, you have got to be differentiated in some respects. And as David said, business strategy teaches us really two ways of competing, competing on a lower cost basis or a differentiation basis.

I am going to -- since I have run out of time almost, let me try and get to the punch line here on Section 2. We try lots of things. There are lots of economic theories, and they have been around for a lot of years, and all the things you might think about Section 2, manipulation of capacity, intellectual property, predatory pricing, bundling, which is unfortunately a new event, manipulation of product characteristics, distribution, and you have heard now we have purchasing, so those theories have been around a while and they have been tried in various capacities, and we have a pretty checkered record of enforcement.

It is interesting, if you take the cases of the late seventies, early eighties, they were business strategy cases. That is what -- exactly what generated them, the Dupont case, the Kellogg's case, IBM, are really fundamentally business strategy cases, and I think none of those cases were won in the end, they were settled or lost, but the fact finder said, well, this looks like competition to us.

And I think the lesson -- since I am almost out of time -- the lesson I would draw for business strategy is, business strategy and business conduct is really fundamentally about value creation, and to some extent, about value extraction, of course, because you have got to make money to justify your resources in it, and we tend in Section 2 in antitrust to look at a snapshot of the way the world is and think about what a firm maybe should not do if it is got a "dominant position."

Now, with Section 2 -- there is certainly a role for Section 2. Where Section 2 gets into trouble is when it tries to meddle around with what is really core value creating activities in a market. Microsoft, there are very, very good reasons for Microsoft to move into lots of other applications of the browser. I mean, it was interesting and not a major part of the case, but the -- I am sorry, the operating system, but the operating system had devoured all sorts of software by the time the case was brought. Remember all the file management utilities and being able to have files with longer names and all those other sorts of things, which are now part of the operating system? Of course they should be part of the operating system.

In other things, it is not surprising, you know, more and more complementary things, like office type software and everything, it is not surprising that those might be complementary to the operating system at all. So, the focus on that and the idea that that should be regulated was, you know, really in my view a very bad idea. I was not involved in Microsoft in any way, and I do not have deep knowledge of it, and I am not defending the things that Microsoft did, but certainly from what I understand, it looks like things you would expect them -- that they should have done.

But Section 2, messing around with what is fundamentally about value creation in a market is not -- you are essentially regulating the competitive process, and we know antitrust is not a regulatory instrument and should not be regulated.

The other thing is when Section 2 tries to regulate what the competition is about. I was fortunate enough to be an expert for U.S. Tobacco in the Conway case where one was allegations was U.S. Tobacco was using category management. Duh. Every major consumer product company uses category management, and the argument was that somehow U.S. Tobacco used category management to either hoodwink WalMart or coerce WalMart or bring WalMart into some collusion against U.S. Tobacco's competitors.

That was silly, okay? The jury did not think it was silly, but it does show if you get a private case, which is where the action is in Section 2, if you have got a situation where you have, arguably, you know, market power, monopoly power, as U.S. Tobacco argued they did because it was, you know, a very large share, then you have got to be -- the lesson is in the Microsoft decision, at least that is the -- you have got to be really careful what you do, and that is I think where Section 2 really gets into trouble, is when you start regulating normal business behavior, when you start trying to regulate the way value gets created, is where you get into trouble, I think particularly in high technology markets that move so fast.

Remember, whatever there was in the IBM case was over by the time it settled. The market had moved so fast by that time, it was silly, and the market actually moves so fast in operating systems and other things that, you know, it was not anything like the market that the Justice Department attacked in the original case. Again, I am not criticizing bringing the case.

So, I think where Section 2 -- where business strategy can help is it provides us a deeper understanding about the way competition really works, about the rules of value creation and how they differ in different contexts, how value extraction works and why it is important, and that is what is missing, and industrial organization economics does not provide that, the law does not provide that. We take each new situation as lawyers and economists and we try and fit what we see into the paradigms we know, and we have to enlarge our understanding and our knowledge to be able to understand better business behavior.

Okay, that is not to say there are not good Section 2 cases and there is not a role for Section 2, but that is where I see where the problems are and what the contribution of business strategy could mean to that.

Thanks.

(Applause.)

MR. ELIASBERG: Thank you, Dave. With that, let's take a ten-minute break, and then we will return for first some thoughts and commentary by Professor Smith, and then a round table discussion. So, a ten-minute break, please.

(A brief recess was taken.)

MR. ELIASBERG: If folks wouldn't mind taking their seats, and we can get started with the observations of George Smith, and then we can give each of the presenters a chance to comment on what they have heard, any thoughts they may have on that, and then we will open it to a round table discussion.

So, George, please go ahead.

DR. SMITH: All right, thank you. Good afternoon. I was here this morning, and I was added to this panel more or less at the last minute as -- I am not sure why. I guess they thought I might have something useful to say, and I was also asked to speak specifically about what gets taught about antitrust in business schools, and I will address that, but I did want to at least make a couple of observations about the presentations that we just heard, which I found particularly fascinating.

For those of you who were not here this morning, I am an historian by training, even though I teach in the Economics Department at the Stern School, and I am very interested in how business strategy has developed over time and how we have to think about business strategy as a discipline and possibly a way of thinking that may be increasingly useful to antitrust authorities and policy-makers.

In business schools, of course, what we teach our students is how to drive toward monopoly. That is what we are there to do. That is our mission. Nobody wants to live and work in a world of perfect competition where the prices are driven by costs and you do not have any incentives to innovate or create new wealth. That would be pretty boring. So, explicitly, what we do is we help create cases for you to prosecute, and that is our function.

Now, we heard some interesting stories today, very different points of view and sort of vision on this problem of business strategy and the drive toward monopoly. First of all, we hear that at Wharton, they teach marketing strategy as a way of gaining a competitive advantage. And a competitive advantage means, of course, putting yourself in a position where you can charge higher prices for your products and services.

Then we heard about Intel, which is a company that practices this sort of thing, and at Intel, of course, branding is very important, and we heard a wonderful story about how creating a brand not only enables Intel maybe to charge higher prices than they might otherwise receive if it were just offering its product as a commodity. But it also implies a promise on which they have to continuously deliver at higher and higher levels of quality over time, and that seems to me to be a pretty good thing.

And finally, we heard about the limits of economic theory and an invitation to think more broadly about strategy as a discipline for understanding how business people really think and really behave and to improve our appreciation for that as people interested in policy.

Now, I will just leave that hang there and hope that we will have lots of questions and thoughts about those basic issues.

As for what gets taught in business schools about antitrust, I did not have a lot of time to think about this, even though I have been involved in academic administration for a period of time in the executive programs at NYU, where I was the academic director for three years, and I learned a lot about the curriculum and what gets taught in it, and I certainly have colleagues who know something about this.

When I am put in a position like this, what do I do? I do what every good academic does. I rip off somebody else's work which does not fall within your jurisdiction but my colleague, Larry White, some of you know him, he has had a career in public service as well as academics, did a survey a few years ago, I think around 19 -- excuse me, 2002 -- I am stuck in the wrong century -- 2002, where he surveyed about 33 leading business schools to see what they were doing in antitrust, and he discovered that there was scarcely a business school that offered a course in antitrust unless it was offered once in a while as an elective. More and more business schools over the years have withdrawn from teaching IO, for example, industrial organization. He did find that what antitrust was being taught in business schools generally cropped up episodically in courses, such as David's, where occasionally you have to remind students that some things they might do might transgress or fall outside of the law.

And then Larry gave some thought to what should be taught in business schools about antitrust and how, and his conclusion, and I largely agree with him, is that in a business school, where we are mainly concerned with teaching people skills and providing them insights on things that they can use on Monday morning as well as hopefully ten years from now, there is not a lot of room for teaching the fine points of the law in business schools in a way you would in a law school. And business school students, of course, are not demanding that we teach them the intricacies of tying and bundling, predatory pricing and that sort of thing. But Larry did come up with some interesting formulations which I will share with you about what students need to know about antitrust and how it should be delivered.

First of all, students should always be aware that antitrust policy exists, and there are good reasons for it. There are good social and economic reasons for antitrust. They should understand that there are dead weight losses in monopoly situations, and very often the drive to monopoly power leads more toward income redistribution rather than wealth creation and that is something that society has to worry about. It is always been my feeling that businesses are supposed to be in the business of wealth creation and politicians are supposed to be in the business of wealth redistribution, and when businesses start doing welfare distribution, you lawyers should start paying attention.

Then there should be some admonishments given to students in the context of the course materials that certain actions that they take may make their firm liable for antitrust action and in some cases may make themselves liable for criminal action. They need to know that. They need to be sensitized to categories of issues for which they should be talking to their corporate counsel or seeking advice from their superiors. There are other things one might bring up, but I think those are the main points.

Finally, I was asked at lunch today to talk more specifically about the role of ethics courses in business schools, and I can speak to that. I am delighted to hear that ethics is taught as a course as Wharton. Ethics is offered as a course in some business schools but not in others. Columbia University, which pioneered a lot of modern business ethics teaching, actually dropped its ethics course for a while under the assumption that professors ought to introduce an ethics model into every course they teach. I think that kind of decentralized approach can carry some hazards, if only because in any population, there are going to be sociopaths who ignore this instruction, and to be serious, I do not know a single professor who thinks he or she has enough time to even advance their core disciplines in whatever amount of time they have, let alone introduce something else.

So, I think it is a good thing for schools to offer ethics courses that deal not only with legal but also extralegal and nonlegal problems, nonmarket problems in business decision-making.

What we have done at Stern is to develop an ethics course which has unfolded over a period of time from the 1980s through the 1990s and has evolved into what I think is a pretty good model. We organize the course around our existing senior faculty from all the disciplines of the school, and faculty take turns offering instruction in the ethics courses. We do not leave it to ethicists or philosophers to do this. We think the students feel that the course is a lot more credible if it is delivered by the finance guru, or marketing professor, and then we bring the faculty together into seminars where we go through particular cases to help them better present the cases in classroom.

With respect to antitrust, I can say that it forms a very small part of the ethics curriculum, but a good part of the ethics curriculum deals with problems of compliance, and we do spend a lot of time on the sentencing guidelines in an attempt to scare the daylights out of our students as to all the terrible things that might happen to them, even if they are just peripheral to schemes that are going on in their companies.

So, that is what business schools are doing, but clearly, business schools do not focus on the core antitrust issues, and I think, ultimately, it is precisely because antitrust, as it is traditionally been addressed in the economics curriculum, does not fit the criteria that David Scheffman laid out for the real business world. It does not help people understand what really goes on in the business decision-making processes.

Finally, in David Reibstein's presentation there was one slide where he introduces a discussion about how people should think about anticipating likely outcomes of their own behavior -- it relates to game theory and scenarios that have become integral to the teaching of business strategy, marketing, and I know I beat this drum this morning, but I think those kinds of tools, as they become more and more refined and more accessible, are things that policy-makers should incorporate into their own analysis of business practice, in addition to the economic analysis one already uses, all right?

So, I will leave it there and hope for a lively discussion.

MR. ELIASBERG: Thank you, George.

(Applause.)

MR. ELIASBERG: What we thought we would do now is to allow each of our three presenters from before the break if they would like to say a few words, and then turn to a guided discussion with Ken and myself.

So, Dave Reibstein, you were first, if there is anything you care to add or comment on what you have heard, we would be delighted to hear it. If you could speak into -- all the speakers, if you could speak into the microphone for posterity's sake here.

DR. REIBSTEIN: Sure, okay.

One of the things, by the way, you did not provide in my background, and it wasn't relevant at the time, is I served for several years as the dean at Wharton Graduate School, and in that role, one of the questions that I had to ask was where within our curriculum we should have, you know, business ethics and business law taught, and we spent some time addressing the question that George was just raising of whether or not it should be taught as a separate course or taught within existing courses as it applies along each of those disciplines, a very controversial issue.

In one sense, the great advantage of having it as a separate course, because we could have some of our -- we have a Department of Business Studies and

Business Law, and these are all lawyers that teach in these courses, and they know the law better than the rest of us that sort of do not really know the law, just know about the law, a little bit about it, and it seemed like that was a logical place for it.

On the other hand, gee, when you are talking about making real marketing decisions, maybe it should be in the marketing aspect. There is this real trade-off that we wrestled with quite a bit, and the argument against the separate course is that, you know, it is sort of like you go to church on Sunday, and then the rest of the week you do whatever you want to do. We have a business ethics and law course, and then the rest of the week, you do all the things that you want to do, and that did not make sense, yet the reality is, you know, as George pointed out, it is hard for people to keep up with enough time for their own discipline and the knowledge base, and so we elected to do, you know, a separate course, and then we have elective courses within each of the disciplines. So, in marketing, we have a marketing law course that I did not mention.

The problem with that is, we get about 30 students a year out of our 800 a year that take that course, and my guess is that the 30 who take it are the 30 that do not need to take it, and that is a problem that we have.

The other thing that I am curious about, and I really raise it as a broader question, is I think most of the law that we have is U.S. law. Most of our students -- actually, most of our students think globally. Almost half of our students are -- carry non-U.S. passports. Almost all of them have spent some time living outside the United States, and all of them aspire to go to work for global businesses. So, trying to think about, so, what are the laws and what are the standards that I should be thinking about globally, and do I need to think about, well, I have got a monopoly or undue power in Indonesia, or do I need to think about, well, what is my, you know, overall position globally, and do I need to understand each of those local laws -- you know, it is a complex issue, and it is a real struggle for us to try and think about, and it is an issue of how do we try and take a broader global perspective on some of the standards and perspectives that we are going to take and even how we view the law as it applies to business.

MR. ELIASBERG: Thank you, David.

Jeff, any thoughts or comments?

MR. McCREA: Just to add to that, I will give you one perspective as a former student as opposed to a professor. There was a business ethics class taught at Michigan when I was there ten years ago, and I will be the first to tell you I did not take it, because there were a lot of other interesting things to be doing, so I think it is interesting there is a trade-off of do you build it into your classes or do you have it as something separate.

The second comment, which I think you just took my thunder on, was exactly the global nature of all the businesses. When we look at this, we absolutely have to look at this globally. We will not survive if we just look at it in a local market. So, both in terms of where manufacturing is moving to to becoming the lowest cost to how you compete in that environment, as well as what are the local laws, how do they apply to the U.S., and frankly, you know, what -- if you are building something somewhere else, how does that apply to the work in the market that you are actually selling to here, and I think that is becoming pervasive in all of our industries today.

It is a great point that I was going to build in as well, which is when we look at this, we do not just think of the U.S. at all. I mean, in fact, very few businesses that I know of do.

MR. ELIASBERG: Thank you, Jeff.

Dave Scheffman, any thoughts or comments?

DR. SCHEFFMAN: Yeah, I want to give the rest of my presentation, but I do want to talk about something that George -- because George, I can respond to George. George said something that I know I cannot quite characterize, he said what we are teaching is how to get market power and charge high prices, and I know that is not what he meant, maybe that is what I am characterizing, but that is not -- you know, I think an important thing for us to understand is a sustainable competitive advantage usually has nothing to do with market power other than in a trivial sense. Most firms' products or services, when they raise the price, they would not lose all their customers, so in that sense their demand curve in the short run is downward sloping, but that is not what sustained competitive advantage is.

It is about producing a product or service and finding it -- in the right way and getting it to market in the right way and finding customers who are willing to pay significantly more than what it cost, and in part it means that it is difficult for other folks to do that same thing, but that is not market power, and that is not what we mean in Section 2 other than in the early termination cases, antitrust cases where you get these real narrow markets alleged by plaintiffs, et cetera, but it is really not about market -- it is really not about market power, what we are teaching about at all.

You are trying to create the demand curve and move it up. Of course, the demand curve is downward sloping in some sense, but that is not the important point at all, okay? It might be you are creating a demand curve that is quite elastic. Look at WalMart. WalMart has nothing to do with a downward-sloping demand curve. It has lower costs and it prices below the competition and it tries to drives sales.

Now, firms that are competing on a differentiation advantage, which George was alluding to, where you try to get a premium for your product are a little bit different, but it is, again, generally fundamentally not about how downward sloping the demand curve is. It is what demand curve you can create and what willingness to pay can you create that was not there before in the products and services you are bringing to market.

MR. ELIASBERG: Thank you, Dave.

Let me ask the first question, and it is kind of basic, but it is important for us laboring here in the agencies.

We have heard mention of the positioning school, what is associated with Professor Michael Porter, the resource-based school and the abolitionary school of business strategy. It would be very useful for us if you could provide a brief description of the different schools and views, business strategies, just so that everyone is talking about the same thing. If I do not have a volunteer, David Reibstein, you are going to get it.

DR. REIBSTEIN: So I am looking for volunteers.

MR. ELIASBERG: If you can help us out here, just a brief description of what the various schools or camps within the business strategy schools are.

DR. REIBSTEIN: Yeah, and I tried to give a little bit of an overview of that when I put up, you know, Michael Porter's Five Forces and talked briefly about that, and there are sort of different defined schools that are out there.

I actually do not think there is a lot of -- you know, while there are sort of -- all of us that are teaching this stuff struggle to find something to teach, I do not think there is an addiction that any of us have or even a strong philosophy that most of us have other than here are the different perspectives when you are going to market, and frankly, if you asked me, so, Dave, you teach this stuff, marketing strategy, what is the, you know, resource-based school, I would say, well, that must be Harvard, because we do not have any resources at Wharton, you know, but I do not know anything else that would describe what that school is.

MR. ELIASBERG: Okay, fair enough. Just one follow-up question on that. Having said that, do any of these camps or classifications say anything in particular or specifically or differently than the others with respect to Section 2 and what we ought to be looking at with regard to Section 2?

DR. REIBSTEIN: I am going to turn to Dave.

DR. SCHEFFMAN: Let me say, I do not think they really differ. Industry analysis is a tool. Michael Porter, when he came out with that book, that the theme of the book was market structure is really important. He very quickly learned after that that that is not true. There is a lot of empirical evidence that market structure is not determinative. Market structure is something you need to take into account, and it is one of the fundamental contributions in the strategy, that you need to understand the external competitive forces, but it is not -- there is not a five forces school. There is no -- no one seriously believes that market structure is the determinative strategy. It is an important ingredient that you need to understand in crafting your strategy.

I think everyone -- anyone who teaches strategy, you can think about the resources-based, that is a better articulated version of Michael Porter's second book, which came shortly after, Competitive Advantage, which is all about, you know, more of what strategy is really about, and resource-based was a really good articulation of I think the basic economics of that. I do not think there are schools. These are tools in strategy. There is an understanding in strategy that it is a mixture of what you do internally matched with the external environment.

And for Section 2, I do not think I have anything new to say other than what I said before, which is be careful when you are messing around with what is basic value creation and what the basic rules of competition in the industry are, and that is something that Section 2 should be very careful of getting into. The agencies I think largely have been recently, but most of Section 2 is about private litigation.

MR. ELIASBERG: Okay. Just any disagreement with that George or Jeff?

(No response.)

MR. ELIASBERG: Okay, sort of following on that, and I think I foresee the answer, but let's be sure. What explanations or insights into particular types of conduct that has been challenged under Section 2, you know, for example, things like unfair dealing, tying, predatory pricing, loyalty discounts, things like that, you know, what does business strategy provide with respect to explanations or insights with respect to that type of conduct that are different from those derived from industrial organization?

Anyone? Dave Scheffman, you are a logical choice. Shall we start with you?

DR. SCHEFFMAN: Well, I think -- and I have talked about this often in the past, I mean, you know, industrial organization -- the framework of industrial organization does not -- I am not saying there are not really smart people in industrial organization that have in some understanding of markets, but it is not something that industrial organization fits very well, okay? The marketing function is not understood in industrial organization, because of, to start with, the demand curve.

So, we have funny things like an economist's explanation, eureka, you might have, you know, exclusive distributors or RPM because your distributors "provide services," and then you look for the elusive services like in Dentsply. There is something to that, but it is not those services. You think about what a captive sales force does. Distributors are not resellers. They are important to branding, and they are your distribution. You are going to want to control them. There are reasons why -- in some cases clearly why you would want to control the margins of your product or your distributors when your distributors sell a lot of other stuff because that provides them the incentive to sell yours.

So, it is really about sales and marketing things where the elusive search for the services, it is really about providing the right structure and incentives for marketing and sales, for middle men to sell your products, and that was a very -- Dentsply was very disappointing in many ways, but sort of saying, well, we do not see any services there, and they are all created out of whole cloth. Well, yes, because you were not even looking in the right place. In Dentsply, exclusive distributors are probably fundamental. The reason why Dentsply was where it was, it was often in an exclusive distribution situation.

So, I think that is really -- I think in marketing practices, that is something where the antitrust law is not helped by economics in understanding what is really going on in business, the way distribution and marketing works.

MR. ELIASBERG: Okay. Anybody else on this one?

DR. REIBSTEIN: Actually, you know, I do not even want to elevate it to the notion of a theory or a marketing or a business strategy theory, and I think it goes back to simply when we look at a lot of these practices, and we think about how do we need to acquire or how do we retain our customers, and one of the examples of those practices you sort of mentioned was loyalty discounting, just a way to try to encourage our customers to continue to buy from us, and it falls under the philosophy of I am trying to retain my customers because it is more economically efficient to do that than it is to attract new customers. Nothing more complex than that.

MR. GLAZER: What do you teach about loyalty discounts in school? Do you get into any level of detail about how to structure loyalty discounts?

DR. REIBSTEIN: There is some discussion about a couple of aspects of it. One of them is -- you know, actually, I have got some colleagues that are working on some work that says, so, the tiered discounting, the tiered programs are really individual cases, and by that what I am referring to is sort of the gold, silver, platinum levels, making sense with that.

What is ironic is one definition of loyalty is customers are so loyal to you, they are willing to pay extra for you, and what we do to our most loyal customers is we give them some of the better discounts, and it sort of is ironic that it works in this, you know, very convoluted way.

Now, I think it was Amazon that got themselves in trouble for one brief moment when they recognized that their loyal customers were less price-sensitive, and so they started offering discounts to new customers and higher prices to their loyal customers, and they got caught in that, not legally caught, but they caught at that by some users who, you know, blew the whistle on them, and they immediately abandoned that. But we do spend some time sort of talking about it is of value to you, the company, to keep your customers loyal, and because it provides value to you, you might be willing to charge a lower price, and so some of that discounting can make sense from a business perspective.

MR. GLAZER: Do you teach anything about -- and this is for anybody -- anything about sort of what might be called absolute loyalty programs, a situation where you tell the customers that you will not sell to them if they go to other suppliers, which was the situation in the Dentsply case, a loyalty policy? Just moving a little bit away from a loyalty discount program to say refusing to deal with customers who are not loyal to you. Are there sort of things that are taught or thought about in the business strategy courses?

DR. REIBSTEIN: I do not think we put it in that frame -- I do not put it in that frame. On the other hand, I have an understanding and an explanation for it, of why one might not explicitly put it that way, if you sell to somebody else, I am not going to carry you, and the logic might go something like this.

If you sell to competitor resellers, there is going to be competition on the market for this product driving the margins down that I would make on your product. If I have got other people that exclusively sell to me, the margins are protected at those other products, and as a result, I am going to be more inclined to carry the products that give me more of an exclusivity.

And so one of the things that I do teach is a way to get more reseller support by providing them more of an exclusivity.

MR. GLAZER: Okay. Now, how about flipping that? I think you were addressing a situation in which the reseller is getting exclusive distributorship, in other words, he gets a deal where the supplier is not selling that product to anyone else. Now, take the reverse of that where the reseller agrees that he is not going to be buying from any other suppliers.

DR. REIBSTEIN: If I am not going to be buying from any other suppliers, I am in essence giving you more shelf space, therefore, you are going to capture a larger share within my business, and as a result, I ought to be able to extract from you, the manufacturer, a higher support, margin, placement money, something, et cetera.

DR. SCHEFFMAN: Well, that is the focus of the conversation, because where we get in trouble with antitrust is that the bribe is the quid pro quo for the monopolization, and I think it is really much more simple than that, but there may be some cases like that. It is how do you align the incentives of the reseller to sell your product? It is a no-brainer.

In a lot of situations, you see captive sales forces doing the same thing that resellers do, and yet the sales forces, of course, are almost never selling competitors' products. Manufacturers' agents sell competitors' products, and that is because it is a no-brainer that if your reseller is selling only your product, they are going to do a better job, not just because they will not cannibalize your sales selling something else.

They are going to do a better job in a lot of circumstances, even taking that aside, in selling your product and really learning about it and giving the sales pitch for your product as opposed to saying, well, you could have this and you could have this and just buy something, I do not care.

Now, there are some markets, we see downstream markets, supermarkets, of course, live by selling everyone's product. There is some point in distribution where exclusion is not going to work in a lot of industries. What the middle man does, the function they provide is just putting stuff on the shelf in a variety. That is what you expect. But any time where the middle man is involved seriously in things related to the brand and the sales effort, you know, actually trying to get people to buy the product, exclusion and exclusive is going to make a lot of sense.

It is going to be the dominant -- in a real sense, it will be the best way to have distribution, whereas in a lot of cases it will not work. It is like the Monty Python Scotch tape store. The economics do not work, so the middle man has to carry competitive products, but where they do not, it is a no-brainer that exclusive -- it is the most efficient, and it does not have to be fundamentally to the exclusion of competitors. It has to do with someone selling -- concentrated on selling a particular product, where sales effort is the important thing, is going to do a better job than if they can say, well, you can buy this, you can buy this, this, this, this, this does that, and they are simply going to do a better job.

You have the same problem within companies, captive sales forces, where they are selling a range of products. You have to manage so they do not, you know, devote all their sales effort to, you know, the high-selling stuff, and you say, no, we actually want to push this product. You have got to direct them to, no, you have got to do that. So, if you look at captive sales, you can understand right away really why you have exclusives and why you could not in some cases because the economics just do not work.

DR. REIBSTEIN: So, let me add just a little tag onto that, which I like the framing that David just provided, and we are looking at the manufacturer and the reseller, and one of the things he said is sometimes the reseller has to carry multiple -- you know, a wide range of products, and that is because the reseller has got a set of customers, and those set of customers may be demanding some choice and some variety, and so we have to look at sort of that complete picture. So, there might be an advantage with respect to the manufacturer but a disadvantage otherwise.

MR. McCREA: The other thing to add to that is from a reseller perspective, you can also look at the cost of carrying fewer products, and I will train my sales force to be more knowledgeable so that we have a range, but also everything from inventory carrying costs to just the overall breadth of the product line that they want to cover. So, if it is something it needs to meet and that is what they want, then they do not need to carry multiple products in that case.

MR. GLAZER: I remember Monty Python's cheese shop, but that didn't have any cheese, okay? So, I do not know what that reflects.

DR. SCHEFFMAN: This is a store that only sold Scotch tape.

MR. GLAZER: Yeah. I remember a bird shop and a cheese shop.

DR. SCHEFFMAN: And it was not bundled either.

MR. ELIASBERG: Jeff, let me ask you a question: You mentioned in your presentation that obviously Intel took a big bet, and let me ask you, what sort of simulations or some of the other things that we have heard about, especially from David Reibstein, were done before that happened, without getting into proprietary information, but, you know, what sort of techniques were used to sort of scope out whether this was of value or not?

MR. McCREA: Several things. I mean, from an overall understanding of the marketplace and understanding of the market environment, you have to look at what the competitive landscape looked like from both other wireless suppliers, if you will, we had to go through a ton of market research to go understand whether consumers would actually buy and pay for it.

I talked a lot about building an ecosystem around it and how expensive that would be. So, we did a lot of work into understanding what we thought we had to do, how to kind of get it to critical mass, so you did not -- kind of seeded it, if you will, and to let it grow with the business around it.

Other things we looked at is what our competitive advantage was in terms of we talked about -- in the space of microprocessors, having a product that was fundamentally built for a notebook and something we thought was unique at the time, and it was unique in the marketplace, so I think that fundamentally by itself offered us a competitive advantage and provided a value to the customers.

MR. ELIASBERG: Right. In some of the materials that Dave Reibstein's written, he has talked about the idea of war rooms and war games being played out, thinking out how a strategy might work out, a marketing strategy in particular. Anything like that done with respect to --

MR. McCREA: There were some war games, but I think it is more in terms of understanding what the options are, frankly, for all these decisions, both in terms of launch timing, in terms of some of the risk factors, you have to look at several different options in terms of how to do it, and we looked at pros and cons of each and just applied basic business theory or business practice, which is deciding what is going to get you the highest return and the level of risk you can handle for what cost.

MR. ELIASBERG: Okay. Another question for you, Jeff, before I let you off the hook. In your presentation, you made several references to ecosystems. How common is that phenomenon in marketing and are there any other examples that come to mind in general?

MR. McCREA: At Intel or --

MR. ELIASBERG: In general, if you could just help us out here a little bit.

MR. McCREA: Hmm. I think that when you think of traditional -- we are probably in a somewhat unique position, probably because we are involved in an important end product, the end product being a PC in this case, so as a result, you start looking around for all the other things that you need, and whether they are other things that are going to enable your product to be better -- you know, my favorite example -- I will answer your question a little differently.

My favorite example is looking for uses for baking soda. So, if you think of baking soda 20 years ago, people use a pinch in what they are baking. Today most of you have some in your refrigerator, some in your toothpaste, et cetera, and so you start thinking about other uses for that product that you can use a much higher volume, so think of it in terms of that gave baking soda a whole new life cycle, if you will, product life cycle.

A similar concept in terms of ecosystem that other companies do look at, who their partners are. You look at what is going on in the industry today, there is tons and tons of co-marketing, where you see two companies who will pool their marketing resources in terms of how they go to market for complementary products. In particular, we talked about cell phones as an example, service providers subsidizing the actual phone itself, right, and then cable or satellite TV companies do something similar with their boxes.

Some of those dollars come from -- could come from the phone maker, it could come from the service providers. There is a lot of different examples where they do look beyond their own particular product, but look at how all the products work together.

MR. ELIASBERG: With respect to this question, let me just ask if any of the three strategy professors have anything they would like to add or comment on with respect to the ecosystems.

DR. REIBSTEIN: It is sort of just like bundling, right, that the bundle of the phone and the phone service, we are going to come up with a package that is logical with what it is that the customers want and hope to sell the thing, you know, in putting some of those things together.

MR. ELIASBERG: And fairly common in marketing?

DR. REIBSTEIN: And becoming more and more common.

MR. GLAZER: Could we talk about -- go back to predatory pricing, which you talked about, David, in your remarks, and I think you distinguished between predatory pricing and below cost pricing. Could you expand on that?

DR. REIBSTEIN: Well, I actually said that there were some times that you could price below cost that I would advocate, and I sort of distinguished it being -- the distinction between pricing below cost and predatory pricing in that predatory pricing has some intent in it, and almost within the word, you hear, you know, predatory, trying to do something to one's competition, versus the below cost, which undoubtedly would have some impact, but the intent might be to make people aware, to try to get people to try.

And then in the examples that Jeff just talked about, where you price below cost, which was the third set that I was talking about of where one might want to price below cost, of I am going to give you a phone and sell you phone service; I am going to give you a cable box and sell you cable box service; I am going to price my computer printer at a relatively low price and sell a lot of the supplies, and that would the incentive, not that I know much about it.

DR. SMITH: I wanted to change the subject just a little bit, if I may. When we think about business strategy, I think it is important from an historical perspective to ask the question to what extent antitrust becomes a component of business strategy for most firms, especially in private suits, and I wanted to ask David Scheffman to address this. We had a brief exchange about that, meaning private suits to the degree where lawsuits are brought under the antitrust statutes as a competitive weapon or as an attempt to transfer from large firms to small firms and that sort of thing.

DR. SCHEFFMAN: I do not know if I would want to -- the real exposure is private litigation under Section 2 of antitrust generally, and I think major firms have counsel, and, Jeff, I am sure you are totally lawyered up and not making any serious business without legal looking at it, and, you know, that is not -- I worry about that a lot, actually. I did some work at the FTC in the -- it was during my first stint, and it is really quite amazing how much lawyers have penetrated the management in American firms, and I think I have seen that some lawyers are really effective managers as lawyers, but I do not think lawyers are necessarily a good fit for someone running an enterprise, so I view that -- again, what I have seen in -- and you talk about predatory pricing, and it is impossible to win a predatory pricing case with a plaintiff, right?

You get a lot of counseling within firms about, you know, if you are thinking about doing aggressive pricing nonetheless, because it is really expensive to defend, someone might bring a case, it is very bad for reputation, you know, so even for something like that where there really is a pretty black line, it would be very, very difficult to actually win a case, and people still are pretty conservative, and you get much more conservative -- I am sure, Ken, from your former employer -- you get much more conservative in counseling on marketing practices generally, and boy, be careful how you term things and all that sort of stuff, which leads to a lot of counter-productive and devotion of effort for non-value creating things, but it is part of the over-litigation, the over-litigation climate, that the real exposure is much more, and the RICO is bad these days and environmental, which are worse than antitrust.

MR. ELIASBERG: George, I am going to put you on the spot on this one given some of the discussions this morning in the session, but I am going to open it up again to the other panelists.

What insights or values does -- lessons does business strategy teach us about crafting remedies in Section 2 cases?

DR. SCHEFFMAN: I did not hear you. About what?

MR. ELIASBERG: What does the business strategy -- what lessons or insights does business strategy give us with respect to crafting remedies in Section 2 cases, for Section 2 violations?

DR. SMITH: Well, this really falls somewhat outside my expertise. I have to fly pretty high over the landscape to answer this one, I think.

You know, I think what I suggested before, that business strategy as a basket of tools is probably something that ought to be incorporated more in assessing remedies or relief in particular antitrust actions, but also even preventively, I mean, before suits are brought, as David has suggested, it is important to understand I think more about how business people really think and what they are trying to achieve in business strategy as distinct from what economic models will necessarily predict, but I think this has, you know, pretty much already been said.

Now, with respect to the history, there is something important that was raised this morning, and I think the development of the Chandlerian firm in the second industrial revolution I think, as it is understood by academics, showed that the strategies of the dominant firms in the center industries were, in fact, aimed more at wealth creation and value creation than they were at predatory practices. That is pretty well demonstrated by the history.

Now, the results in some cases may have been undesirable from the point of view of the law, but I think we know a lot more about the intentions of successful businesses over time, that you do not stay successful for a long time unless you are creating value and you intend to do that.

There is also a relationship the Chairman brought up about the dynamics of strategy and structure, organizational structure, which is something that was left out of the discussion this morning, but it came up at lunch, and that is that what we have learned historically -- it is a very simple problem, but it took a long time to really think through -- is that for every strategy, at least in theory, there is an optimal organization under which companies pursue that strategy, but organizations, once developed, are hard to change. Strategies are easy to change.

And we find examples of firms like AT&T or Standard Oil in the early part of the century that at some point acquired a set of organizational rigidities and corporate cultures that were no longer productive, and in both cases we see that actions by the Government, whether intended or not, inadvertently led to more value. I mean, the breakup of Standard Oil, you know, turned out to create an awful lot of value in the equity markets, because the breakup value, you know, was much greater than the previous combination.

And with respect to AT&T, my own feeling was -- and I did not say this this morning -- was that it was probably a good thing to bring the Bell System to an end when it came to an end, if only because it just unleashed a torrent of innovation for a long time, and having worked at the Bell System myself for some period of time from 1970 until '82, you could see this was an old, tired company, and you got to know the managers of the operating companies, and they were just itching to get out from under. History shows that there was a lot of dynamic wealth creation and innovation as a consequence.

I am not sure what this all means for antitrust policy, but I do think that the relationship between strategy and organization is just yet another thing that at least academics certainly want to take into account and may factor into thinking about where firms are in their life cycles and what this means for the economy.

MR. ELIASBERG: Dave Scheffman, you have had the advantage of teaching business strategy and being on the enforcement side.

DR. SCHEFFMAN: Well, I think we know a lot more from the enforcement side. I mean, I think we all as antitrust economists and lawyers that learn antitrust is about competition. It is not a regulatory instrument, and we should not be -- we back into the regulatory role sometimes, essentially from what we have learned from mergers, and try to do something fairly simple, which the market does all the time, which was shop baskets, and sometimes it does not work very well. Sometimes the FTC -- the AOL/Time Warner consent and how that has played out, regulatory nightmare, and we have the EU looks like it is going to regulate Microsoft for -- into the -- well into this century.

I mean, we do not -- I think when we bring Section 2 cases -- I know this was the -- in the Section 2 cases I have been involved a lot on the inside, the ethyl case, there was not really a lot of serious thought about what the remedy was going to be. It was, you know, win the case. I think there was more serious thought in Microsoft, but the idea -- and the antitrust principles were followed, I guess, break it up, seemed, you know, a ridiculous idea to me and to many others, and so you are left with a regulatory structure, which the appeals court, you know, did a relatively light hand on the EU.

So, I think we have learned from Judge Green in AT&T and can just look at what the EU does, you know, we should think of Section 2 cases in terms of the remedy, the remedy is going to be regulatory, but think about what the case is about and how much you want to pursue it, than to think more about the regulatory side.

MR. GLAZER: One of the speakers earlier referred, maybe more than one, referred to the -- did not use the word "chilling," but the basic idea was chilling business strategy by concerns about antitrust law. I am wondering if anyone can point to a specific instance that they know of, and you can speak hypothetically, you do not have to identify the case, but where -- in which you think there was chilling of business conduct based on fear about legal liability.

DR. SCHEFFMAN: Yeah, I had something I thought was actually quite absurd under Robinson-Patman in a big company that, you know, I advised it was a relatively small number of customers, selling telecom equipment to the RBOCs largely, and I suggested it was trying to drive incremental volume discounts, pretty common these days, not an unreasonable thing, and business people thought, gee, that is really a good idea, and it was squashed by legal in a second.

You cannot do that because of Robinson-Patman. Now, that is really absurd. I am not a lawyer, but I think that is very conservative Robinson-Patman, you know, counseling these days, and again, I have seen situations where they counsel about predatory pricing, which seems to be, you know, the company was not talking at all about pricing below -- were not thinking at all about pricing below cost.

So, I do not know what -- Intel probably cannot say, but I would -- you know, doing stuff with interfaces and technology these days, I assume you have got lawyers crawling all over that, because, I mean, what we have learned is through the Microsoft case, and I am not saying it was only learned in Microsoft, but it was learned that sophisticated entities can move the needle a lot, you know, and cause a lot of trouble, and you might get the antitrust agency involved in the end with Microsoft or you are certainly going to get some private litigants involved.

So, I think there is, what I have seen in high technology companies, a lot of care in thinking about their product choices and interfaces and things like that, despite that there might be complaints about that, I think it is still very conservative among companies typically what their lawyers actually do.

MR. GLAZER: Do other panelists have any -- have other panelists seen instances of competitors -- I mean of large firms pulling their competitive punches?

DR. REIBSTEIN: I have been amazed at the number of strategy meetings that I have been in where people have been hesitant even to use certain language, and in a word, somebody might say, well, we -- you know, what we want to do -- in some, you know, macho or aggressive way, somebody might say, well, we are going to try to kill company XYZ, and everybody -- you know, do not put that down on paper, do not say anything, you know, or -- I mean, terms of, you know, being aggressive or trying to capture, you know, the market, and there would be a great deal of hesitancy in having some of those discussions even, and this is sort of all companies that have been beaten around by their lawyers, saying, whoa, you just cannot go in any of these territories.

So, I think it has had a major influence and has changed the language and the behavior, and I certainly see it in some of the strategy meetings.

MR. ELIASBERG: I would like to ask a follow-up question to Ken's here, does business strategy suggest safe harbors, presumptions, other sign posts that businesses and courts can use to assess some kind of safe harbor, that this is stuff we are not going to be looking at under Section 2 or some sort of sign post that this is something we should not be worried about?

MR. McCREA: I am not sure I understood the question, so these guys can go ahead.

MR. ELIASBERG: Let me try again.

Picking up on Dave Reibstein's point about even fear of talking, using some language and things like that, out of your experience in business strategy work, are there particular areas of conduct that should be safe harbors in which folks just should not have to worry about Section 2 enforcement, at least from the federal enforcement agencies, for example, or are there, for example, sign posts of things that would suggest that maybe some safe harbor is something that probably we really should not be worried about?

DR. REIBSTEIN: So, essentially following up on your comment -- and now that I do understand the question, thank you -- I will admit that in some of those sessions I was referring to, I have written things -- the most dramatic step was I wrote something, and somebody came up, pulled it off of the flip chart and ate it, because he thought there was a certain word, and I think we should not be harassing companies and bothering companies for wanting to beat competition. I think competition to be very, very healthy.

Granted, there is a point when, you know, their power gets out of line, but in general, the notion of coming in and beating competition in a market, serving customers better, is something that should be encouraged, not something that we need to have companies overly concerned about, and I think there is so much fear that we have instituted from some of the regulation that there is this intimidation to talk about if -- you know, there is -- I do not think there are many companies that are too worried about beating competition, but there is, you know, you do not know who is listening, and it has affected, you know, some of the language, and in some cases, you know, some of the decision-making.

Now, I know a company that has got large market share, and I do not know that you guys are worried about them, you know, their market share is too big, do we have to worry about -- do you worry about damaging AMD?

MR. McCREA: I am not going to go near that.

DR. REIBSTEIN: See, you will not go near it, because that is something we cannot talk about.

MR. McCREA: You know, I think that in my opinion I agree with your comment, that competition is good and that to comments that we have heard all day from all the business professors is that everyone teaches competition is good. That is exactly why we are all in business, right? You do business to win.

To your point, I think you -- depending on your market position, you may look at how you grow the market more than how do I beat my competitor, because I work at a bigger -- I will get a bigger return by growing the overall pile than I will by trying to take one more point of share, right? So, it may shift -- depending on the company, it may shift what your focus is, where you spend more of your resources and revenue.

Having said that, I think you are absolutely right in that I think that we probably are overly cautious in some ways -- I do not mean Intel, I mean in general, right now -- because of the reasons you just articulated. I think that frankly we should be figuring out ways to become more competitive and encourage companies to become more competitive, because back to our global comment, it is not competing within the United States. It is competing with the next company in China, the next company in Russia, the next company in a lower cost area, and that is what I think the attention is.

DR. REIBSTEIN: And actually, I would come back to that, which is I think as we get so concerned about doing so well that we might, you know, get an undue market share, it may take away some of our efficiency, which makes U.S. corporations perhaps more vulnerable to information competition, and I worry whether or not we have overly struck a fear in some companies by being myopic in looking just U.S. centered and not thinking more globally.

DR. SCHEFFMAN: There are three cases in the queue that we do not know if you guys are going to submit if you get an opportunity, Twombley, where you have to have some credible basis for alleging that there is collusion or conspiracy? Have I got the name wrong? Is that --

MR. GLAZER: Twombley.

DR. SCHEFFMAN: Twombley, okay, that was a textile case. You have got the RPM case that is rumbling around? There is another that's -- I guess Weyerhauser, those three cases are -- I mean, we have had -- you know, we have -- the law has worked, taken a long time, but we have -- you know, the law resolved on predatory pricing really, and Shott (ph)was really important, Matsushita was very important, so that is what we -- that is the only way -- we are going to raise the cost of bringing frivolous cases, so we have got three in the queue, at least pursuing, and we are trying to get some help in the antitrust section to do some submissions on some of those.

DR. SMITH: Historically we know that we discussed this morning some cases, the Alcoa case, where clearly the fear of antitrust pressure drove their pricing strategy, and Dupont earlier in the century, you know, after 1912, was very self-conscious about how it competed, and General Motors, after 1956, was very careful -- we know this, it was very careful to maintain its market share at around 50 percent so not to drive American Motors out of business in particular, and you have to wonder, you can speculate about what impact that might have had on the competitiveness of these companies long-term.

MR. ELIASBERG: Well, I see that we have arrived at 4:00, and it was fascinating, and I understand people have travel arrangements and other commitments. I want to thank all the panelists for their excellent presentations and useful information and your insights here today, and I hope the audience will join me in a round of applause. Thank you very much.

(Applause.)

(Whereupon, at 4:00 p.m., the hearing was concluded.)

C E R T I F I C A T I O N   O F   R E P O R T E R

DOCKET/FILE NUMBER: P062106

CASE TITLE: SECTION 2 HEARING

DATE: OCTOBER 26, 2006

I HEREBY CERTIFY that the transcript contained herein is a full and accurate transcript of the notes taken by me at the hearing on the above cause before the FEDERAL TRADE COMMISSION to the best of my knowledge and belief.

DATED: 11/13/2006

SUSANNE BERGLING, RMR-CLR

C E R T I F I C A T I O N   O F   P R O O F R E A D E R

I HEREBY CERTIFY that I proofread the transcript for accuracy in spelling, hyphenation, punctuation and format.

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