DEPARTMENT OF JUSTICE

Competition Enforcement in an Innovative Economy

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Introduction

Thank you for the opportunity to speak with you today. I will use my time to offer some observations about competition, competition law, and economic growth. In particular, I will focus on how the goal of maximizing economic growth can guide many of our antitrust enforcement decisions.[1]

Let me start with the last concept – economic growth. Economic growth – or increases in the economic well-being of our citizens -- is the ultimate purpose served by competition laws and policy. This is another way of saying that competition laws promote consumer welfare. This recognition means that it is crucial for us to understand the forces that promote economic growth and the ways in which competition law can help – or hinder – that growth.

As an initial observation, consider the concept of competition – what some might view as the holy grail for antitrust enforcers. Competition is a crucial concept, but it is not a goal by itself. Rather, it is a means to the end just discussed. By protecting the competitive process – and not any particular competitive outcome – competition law helps spur innovation, as well as to lower prices and to increase output.

So what else drives economic growth? At a basic level, efficiency is the principal driver. There are, generally speaking, two types of efficiencies: static

[1] I thank Avery W. Gardiner for her help in preparing these remarks.

and dynamic. Static efficiency describes the tendency of a marketplace to reduce costs by refining existing products and capabilities. In a free, highly competitive economy, competing firms quickly adapt to an existing technology, streamline their methods, cut costs, and drive the price of an existing product down to something close to the cost of production (marginal cost). This is a tremendously positive system that drives economic surplus into the hands of consumers. Static efficiency is a powerful force, and the competition laws are important tools for promoting it.

But focusing on static efficiency alone sells our economies far short of their potential. The far greater driver of economic growth is dynamic efficiency. Dynamic efficiency refers to gains that result from entirely new products and new ways of doing business. The famous economist Josef Schumpeter, who was instrumental in demonstrating the link between growth and dynamic efficiency, described it as "competition from the new commodity, the new technology, the new source of supply, the new organization, . . . competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives."[2] Dynamic efficiencies are game-changing. Breakthrough products and

[2] J. Schumpeter, Capitalism, Socialism and Democracy 84 (1942).

new ways of approaching markets – like the internet – are examples of dynamic efficiencies.

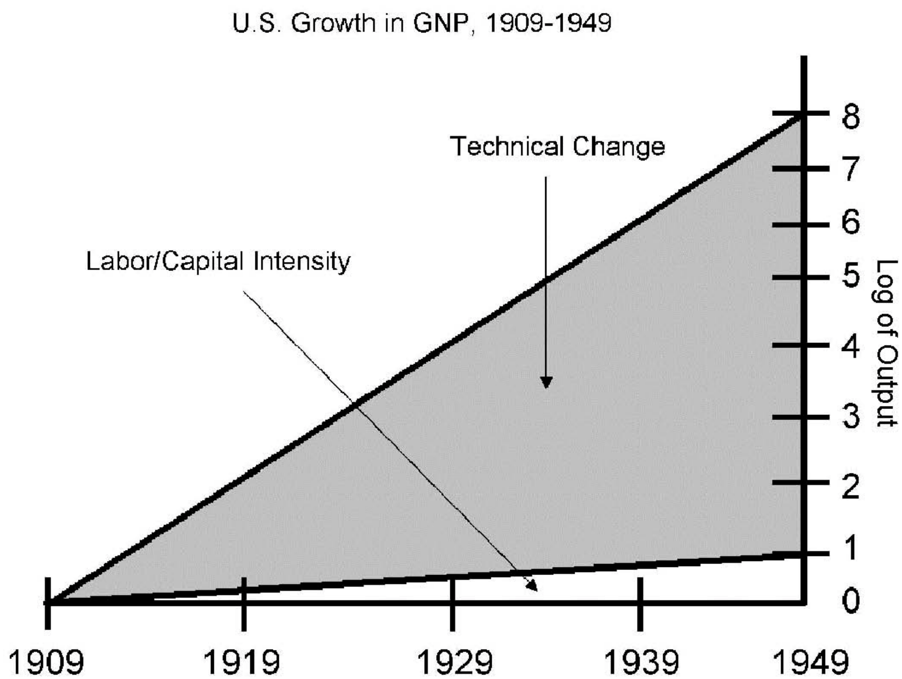
The Solow Model

As I asserted a moment ago, dynamic efficiencies are critical because they are the greatest source of economic growth. This is far more than an assertion; it is an empirically demonstrated fact. Robert Solow won the Nobel Prize in Economics in 1987 for his research into the forces that cause economic growth.[3] Beginning in the 1950s, Solow tested the traditional assumption that growth was a simple function of labor and capital intensity – and that working harder or building more machines and factories were the roads to growth. Solow found that the traditional assumption suffered from some serious flaws: increasing the intensity of work and the number of machines could explain initial gains, but these gains would necessarily plateau as a given technology saturated its production market, leading to a long-term growth rate of nearly zero. Yet, in reality, long-term growth was occurring, so Solow set out to find the missing factor.

Solow found that between 1909 and 1949, gains from labor and capital

[3] *See* Press Release, The Royal Swedish Academy of Sciences, The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1987 (Oct. 21, 1987), http://nobelprize.org/nobel_prizes/economics/laureates/1987/press.html.

intensity accounted for only one-eighth of United States GNP growth, while the remainder – a remarkable seven-eights – could be ascribed to a force he termed "technical change."[4] Placed in a chart, this result is striking:



Solow ultimately inferred – quoting now from his Nobel Prize lecture in 1987 – that "the permanent rate of growth . . . is independent of the saving (investment) rate and depends entirely on the rate of technological progress in the

4 *See generally* Robert M. Solow, *A Contribution to the Theory of Economic Growth*, 70 Q.J. Econ. 65 (1956).

broadest sense."[5] In other words, improvements in technology – new ways of producing, rather than just old methods done more intensely – create the vast majority of improvement in real societal wealth. Subsequent work on Solow's growth model have measured the contribution of technological innovation at various levels,[6] but always with results consistent with Solow's basic finding: In developed economies, technological change – dynamic efficiency – is the primary engine of productivity growth.

Competition and Productivity

Solow looked at the issue of growth from the macroeconomic perspective. Competition law addresses the issue of growth and productivity from a microeconomic perspective. We have empirical evidence suggesting that competition is a key driver to productivity growth.

William Lewis, a consultant with McKinsey, supervised an extensive study of markets in many countries around the world. He concluded that competition is a

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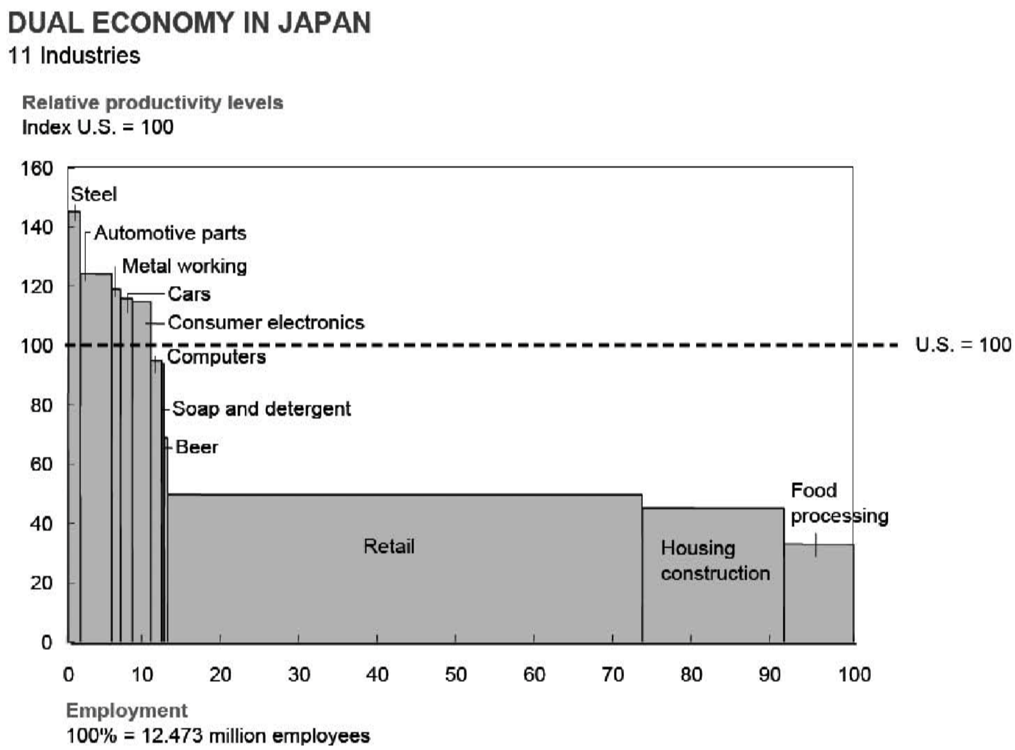
[5] Robert M. Solow, Growth Theory and After, Prize Lecture for the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1987 (Dec. 8, 1987), http://nobelprize.org/nobel_prizes/economics/laureates/1987/solow-lecture.html.

[6] *See, e.g.*, Michael J. Boskin & Lawrence J. Lau, *Capital, Technology, and Economics Growth*, *in* Technology and the Wealth of Nations 17 (Nathan Rosenberg et al. eds.,1992) (During the four decades following World War II, the estimated contribution of technical progress to economic growth was 49% in the United States, 55% in Japan, 73% in the United Kingdom, 76% in France, and 78% in West Germany.)

key driver of technological advancement and productivity growth. As one illustration of his findings, Lewis examined a range of industries in Japan and compared their productivity levels with the same industries in the U.S.[7] Lewis's results are best expressed in a chart:



Lewis concluded that a key difference between the highly productive industries and the less productive ones was competition. The steel, automotive, and other

[7] *See, generally*, William W. Lewis, The Power of Productivity: Wealth, Poverty, and the Threat to Global Stability (Univ. of Chicago Press 2004).

industries that were forced to compete in the rough and tumble of global markets were relatively more productive than their U.S. counterparts. In contrast, the largely domestic industries that Lewis found were more insulated from competition were significantly less productive than those same industries in the U.S. Based on his research, which included comparisons of industries across fourteen nations, Lewis concluded that "[d]ifferences in competition in product markets are much more important"[8] than differences in labor and capital markets in analyzing economic performance. As he put it, "competition is the way more productive firms win out."[9]

Applying this Framework

The teachings of Solow about the importance of dynamic efficiency, coupled with the notion that competition is an important driver of dynamic efficiencies, presents the antitrust policymaker and enforcer with a useful framework: The goal of driving dynamic efficiency – and thus economic growth – can guide our approach to cartel enforcement, merger analysis, and single-firm conduct matters.[10]

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[8] *Id.* at 13 (emphasis omitted)

[9] *Id.*

[10] By focusing principally on dynamic efficiencies today, I do not mean to suggest that static efficiencies are unimportant. Incremental improvements in manufacturing, distribution,

This approach is not entirely new; as my predecessor Joel Klein once said, "as important as price competition is to us, a second major and possibly even greater concern is maintaining competition for innovation."[11]

Application to Cartel Enforcement:

The Antitrust Division has long emphasized cartel enforcement as a top priority. Cartels are antithetical to the competition that drives dynamic as well as static efficiency. When competitors collude, they increase their profits by insulating themselves from the forces of competition. Thus, cartels reduce the incentive to innovate, to invest in research and development, to create new products, or to develop new ways of delivering products and services to customers. The entire purpose of a cartel is to avoid the disruptive forces of competition – to preserve what another Nobel Laureate, John Hicks, called "[t]he best of all

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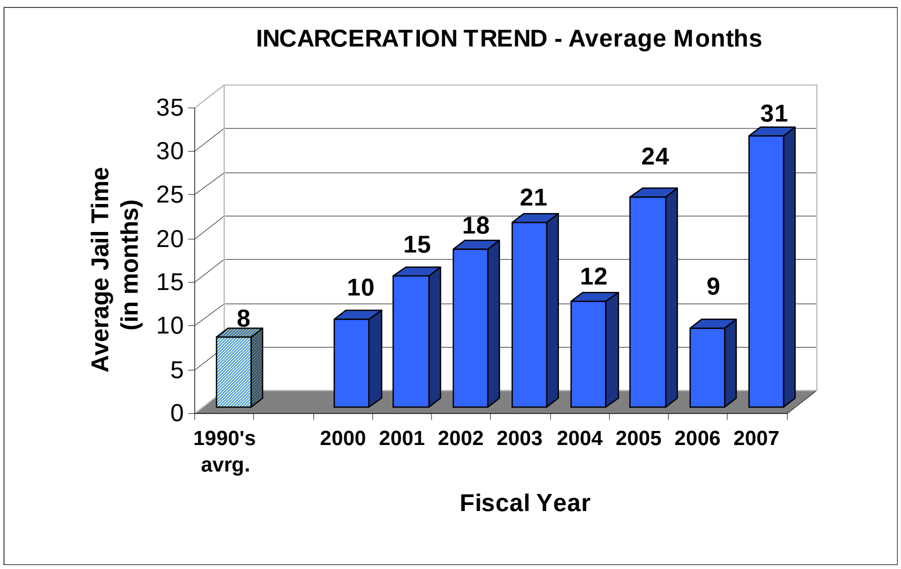
marketing, and R&D do bring benefits to consumers and are an important part of our antitrust analysis. But because dynamic efficiency is so critical to meaningful economic growth, it is our obligation as government enforcers also to pay attention to how our actions are likely to affect dynamic efficiency.

[11] Statement of Joel Klein, Assistant Attorney General, Antitrust Division of the U.S. Dept. of Justice before the Antitrust, Business Rights and Competition Subcommittee, Committee on the Judiciary, U.S. Senate, March 22, 2000 at p. 6, http://www.usdoj.gov/atr/public/testimony/4381.pdf.

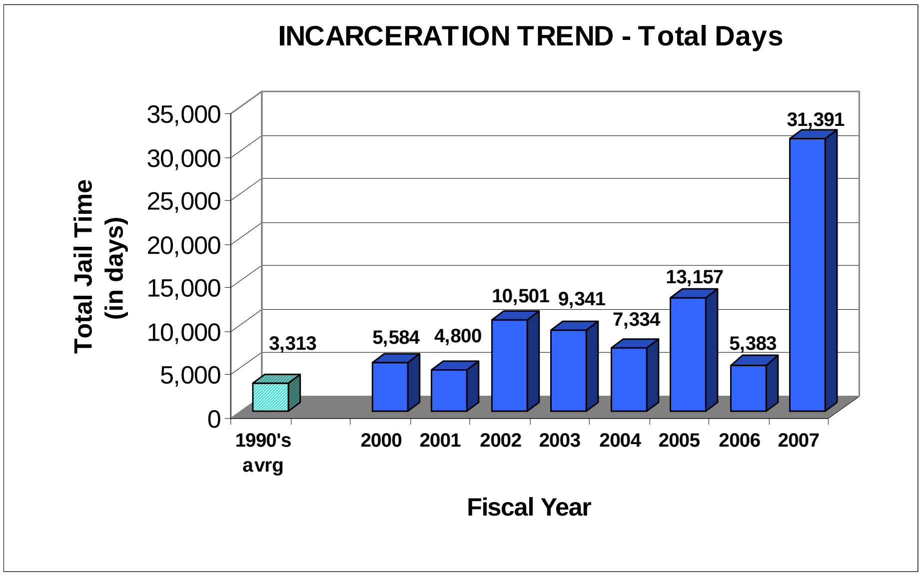
monopoly profits. . . a quiet life."[12] For these reasons, cartel enforcement is our highest priority.

Our enforcement efforts against cartels have never been stronger. I say so for several reasons.

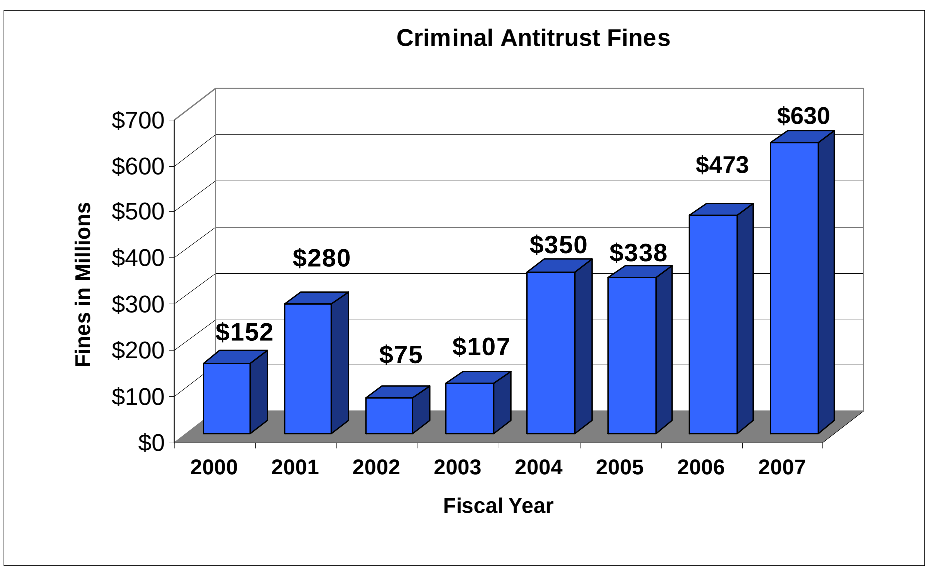
First, the Antitrust Division's cartel enforcement continues to set new records. During the last fiscal year, the Division obtained the highest average prison sentence in its history. And the total jail time imposed was more than double the previous record.



[12] John R. Hicks, *Annual Survey of Economic Theory: The Theory of Monopoly*, 3 Econometrica 1, 8 (1935)



Further, we obtained over $600 million in fines, the second highest total in Division history.



This fiscal year, we have filed 37 cases, and our pipeline of investigations is as strong as it has ever been.

Second, and this point is one of the reasons for the good news reported above, we now have an international consensus that cartels are harmful and should be prosecuted aggressively. Rather than debate whether cartels should be banned at all, we now discuss how best to prosecute cartel members and deter companies and individuals from participating in them.

The OECD, for example, has adopted recommendations to prosecute hard-core cartels. The list of countries that have criminal penalties available for cartel violations includes: Ireland, the United Kingdom, Japan, Korea, Brazil, Norway, and Canada. Australia may soon join that list. Even where criminal penalties are not in force, such as with the European Commission, the administrative penalties are increasingly severe, as illustrated by the revised fine guidelines issued by the EC in 2006. As the Commission stated, "these [cartel] practices constitute very serious infringements of EC Treaty antitrust rules."[13]

A recent development right here in the United Kingdom underscores the

[13] *See* "Antitrust: Commission fines providers of international removal services in Belgium over €32.7 million for complex cartel," issued 3/11/08, http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/415&format=HTML&aged=0&language=EN&guiLanguage=en

progress we have made. The Office of Fair Trading last week obtained its first criminal convictions under the Enterprise Act. Three individuals were sentenced to prison terms of three years, three years, and two and one-half years respectively (as well as disqualification for significant periods of time from serving as corporate directors) for participating in a cartel for sales of marine hose in the U.K. While I am constrained from discussing too many specifics, the success in this matter reflects the enhanced coordination across competition agencies that improves each of our anti-cartel efforts:

- We coordinated simultaneous searches across jurisdictions;

- In the U.S., we arrested the three individuals, among others, in Houston, Texas the day after they participated in a cartel meeting. Indeed, the OFT was able to play excerpts from a video recording of that meeting in its sentencing proceedings last week.

- The U.S. Department of Justice entered into plea agreements with the three defendants for fixing prices in the U.S. that enabled the OFT to pursue its prosecution immediately. Before being sentenced in the United States, the individuals were escorted to the U.K. where they were arrested, charged by the OFT, and now have been sentenced to significant prison terms.

In short, we have an increasing number of enforcers investigating cartels and using well-designed leniency programs, increasing the risk of detection. Increased cooperation and sharing of investigative techniques are increasing the risk of successful prosecution. And the penalties imposed for international cartels are increasing as well. Thus, I submit that the world has never been riskier for cartel participants – and I am optimistic that it will get more risky.

Application to Civil Enforcement:

When it comes to civil antitrust cases, both merger and non-merger, a more nuanced approach is needed. Unlike in the criminal cartel context, where the conduct is unambiguously harmful to both static and dynamic efficiencies, civil cases require the antitrust enforcer to analyze how each proposed merger or other conduct might affect efficiencies.

Mergers

Mergers can spark both types of efficiencies. They can combine R&D programs that may have complementary skills. They can bring a portfolio of patents or other intellectual product rights under the same roof. They can bring together different perspectives on marketing, customer wants and needs, and manufacturing techniques.[14] All of these combinations can result in innovation,

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[14] *See, e.g.*, Antitrust Modernization Commission Report at 59 ("a merger may make it easier to combine complementary assets and know-how. Alternatively, a merged company may

which as Solow taught us, is the leading driver of growth at the macroeconomic level. Competition may be enhanced by such mergers.

But mergers also can harm competition, and thereby undermine innovation and economic growth. A particular merger might, for example, absorb a disruptive rival or be used to increase a firm's ability to coordinate with its remaining rivals. Such reductions in competitive pressure can undermine the forces that promote dynamic efficiencies. Our challenge in merger review is to separate those mergers that threaten to undermine economic efficiency from those that may help – or at least not harm – such efficiency.

We make those determinations by carefully examining each proposed merger, looking for the facts and market dynamics that enable us to determine whether a merger is likely to substantially lessen competition. There is no need for a different substantive standard to judge mergers in markets where innovation is particularly prominent, as some have suggested.[15] We simply need to be mindful of the potential that mergers hold for achieving dynamic efficiencies within our normal analytical framework.

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be better able to share risks associated with research and development. . . a merger can increase the odds of successful commercialization of the product.") (internal citations omitted), http://govinfo.library.unt.edu/amc/report_recommendation/toc.htm

[15] For a discussion of this point, *see* Michael L. Katz and Howard A. Shelanski, *Mergers and Innovation*, 74 Antitrust L. J. (2007)

As a result, we no longer make judgments solely on market share and structure. Rather, we investigate the competitive process. Where we find a problem, we aggressively pursue a remedy. Let me give you two examples to illustrate the point:

- The Division recently closed its investigation without taking any action to stop a merger of the U.S. operations of two beer producers: Miller and Coors. While the concentration levels of beer producers in the U.S. will be relatively high, the merger will produce large, merger-specific efficiencies, including substantial reductions in variable costs of production and distribution that are likely to have a beneficial impact on price. As a result, our analysis indicated that the combined company would be in a better position to compete effectively in the marketplace.

- Earlier this year, the Division challenged the merger between GPC and Altivity, two producers of coated recycled boxboard. While the post-merger shares of the combined company – 42 percent – would not have been as high as some mergers that we have not challenged, our analysis showed that, among other things: (i) the two companies were particularly close competitors; (ii) the entire market was significantly capacity constrained; and (iii) high barriers to entry existed. Based on our investigation, we filed a complaint challenging the merger. We simultaneously settled the matter with the divestiture of two boxboard plants.

We also strive to be transparent about our standards in merger reviews and to reach the right answers as quickly and with as minimal burden as possible. The Division took a major step forward in this regard when it adopted its Merger

Review Process Initiative in 2001 and updated it in 2006. These procedural steps have greatly improved the communication between the Division and parties, which has enabled us to determine more quickly when proposed mergers do not threaten competition and to reduce document and data collection burdens generally.

This progress does not mean that we are becoming less aggressive in merger enforcement. To the contrary, the increased speed and efficiency of our ability to identify transactions that do not harm competition enables us to better focus our resources on those challenges that do violate our competition laws. In this regard, the Division has continued to challenge mergers as appropriate based on the evidence obtained in our investigations.

I also would like to say a few words about convergence. Back in 2001, with the GE-Honeywell merger review weighing on every antitrust enforcer's mind, it appeared as if we might expect a lengthy period of divergence over mergers, a result which might have burdened merger activity globally and potentially thwarted mergers that could result in dynamic efficiencies. I am pleased to observe that this scenario has not come to pass. To the contrary, we have experienced significant convergence in our reviews of mergers on both sides of the Atlantic. At the Antitrust Division, we work closely with our counterparts in Europe, including literally side by side on some occasions. Our staffs regularly discuss particular issues and ensure that remedies being sought on both sides of the Atlantic are consistent. I look forward to continuing that close relationship.

Single-firm Conduct:

I turn finally to the complicated area of single-firm conduct matters. Single firm conduct is perhaps the most difficult category of antitrust enforcement. It is in this area that the goal of using antitrust as a tool to encourage dynamic efficiencies is most complex. When a firm develops a better or less expensive product than all of its competitor's products, it may obtain or maintain some measure of market power. It may even legally charge a monopoly price under US antitrust jurisprudence.[16] But that may still be to the benefit of consumers. Two of our leading antitrust economists, Dennis Carlton and Ken Heyer, recently provided a useful example: If the first producer of automobiles – an excellent example of dynamic efficiency – has monopoly power and exercises that power in setting its price for cars, it "is likely better for consumers and for the economy as a whole than is a world with no automobiles but perfect competition among horse drawn carriages. . . In this critical sense, even where a better product eliminates

[16] *Trinko,* 540 U.S. at 407 ("The opportunity to charge monopoly prices – at least for a short period – is what attracts 'business acumen' in the first place; it induces risk taking that produces innovation and economic growth.")

competitors, it represents more competition, not less."[17]

Of course, some single-firm conduct has the effect of harming consumers, and we should vigorously prosecute such conduct. A dominant firm that blocks competitor access to the market through a means that produces little or no benefit other than the exclusion may well harm the competitive process.

The issue is how to identify and remedy harmful conduct by a firm with market power while not chilling procompetitive innovation. As Judge Easterbrook described our challenge: "[a]ggressive, competitive conduct by a monopolist is highly beneficial to consumers. Courts should prize and encourage it under the antitrust laws. Aggressive, exclusionary conduct by a monopolist is deleterious to consumers. Courts should condemn it under the antitrust laws. There is only one problem. Competitive and exclusionary conduct look alike."[18]

While single-firm conduct cases remain an area that is still working towards a consensus on the substantive standards, I offer some guiding principles, with an eye toward promoting dynamic efficiencies, that could be applied in any jurisdiction:

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[17] Dennis Carlton and Ken Heyer, *Appropriate Antitrust Policy Toward Single Firm Conduct*, March 2008, at 16-17, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1111665.

[18] Frank H. Easterbrook, *On Identifying Exclusionary Conduct*, 61 Notre Dame L. Rev. 972, 972 (1986).

- First, we should continue to strive to identify and prosecute conduct by dominant firms that harms the competitive process.

- Second, based on our past experience in the U.S., we should avoid over-enforcement in this area, lest we inadvertently decrease incentives to develop new products and technologies.

- Third, the health of competitors by itself is not the concern of the antitrust laws.

- Fourth, we should make a fact-specific and situation-specific determination of the competitive effects of particular conduct rather than rely solely on structural presumptions such as high market shares.

- Fifth, we should clearly communicate our standards to the business community. Transparency helps firms to conform their conduct and can reduce unintended harm to competition created by uncertainty.

Conclusion

Antitrust policy alone cannot itself generate dynamic efficiencies. But it can shape the environment in which such innovations are most likely to occur, and this is true across all elements of antitrust enforcement.

I leave you with a few final thoughts on key challenges in antitrust enforcement in the coming years:

First, while we have made tremendous progress in cartel enforcement, we must not become complacent in fighting this greatest of threats to economic growth. The number of jurisdictions that impose severe, preferably criminal, penalties on cartel participants needs to continue to expand, as does the scope of international cooperation.

Second, we will continue to see a growing number of jurisdictions engaging in significant merger review. Our challenge will be to extend the model for cooperation that has developed between the U.S. and the E.C. to those other jurisdictions.

Third, on single-firm conduct issues, we should embrace a public dialogue among competition agencies, the business community, and others concerning the most effective enforcement standards and policies in this area. In doing so, we should always keep in mind the common goal of promoting consumer welfare, which in my view means promoting incentives to achieve dynamic efficiencies.

Thank you for inviting me to speak here today, and I look forward to the rest of the conference.