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A Presentation on Assessment of Market Power and Dominance

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It is a pleasure and honor to speak at Competition Day. I want to thank President Motta for his very kind invitation to speak with you. Over the last several months, I've enjoyed working with the Federal Competition Commission on the reference papers on market definition and market power. Richard Schmalensee, Howard Chang, and I all appreciate the comments and suggestions you've given us.

My task over the next few minutes is to talk about market power.

Now if antitrust were a movie, then market definition, which Professor Schmalensee has talked about earlier, is surely the star. Perhaps even a superhero. Market definition can guarantee a victory for a competition authority against the corporate villain. Or it can sweep in and save an innocent business wrongly charged. Or course, it can also help a misguided competition authority against an innocent company, or help a corporate villain with clever lawyers against an authority that actually has it right. So it can be the Joker, too.

Market definition gets top billing in antitrust matters, and a lot of the attention. How many trees have sacrificed their lives for papers on the SSNIP test and other ways of building market definition up into an even bigger star?

Now, market power is often just the sidekick. Whatever market definition says, market power just smiles and nods its head in agreement. If market definition says "broad," market power leaps to attention and says there's no problem. And if market definition says "narrow," market power just as surely shouts monopoly and dominance. We will see why market power can be a mere parrot for market definition in a few minutes.

Today I'd like to explain why market power should really be the leading man of the antitrust show, and market definition should be the sidekick. And if I can't get that acceptance, then definition and power should be co-stars and get equal billing.

Let's get right to the heart of the matter for any antitrust or merger inquiry. We want to know whether the practice or consolidation at issue could harm consumers. The answer to that question ultimately depends on whether the competitive environment prevents the subjects of the inquiry from doing bad things. If competitors and customers react severely to an increase in price, for example, the firm that is the subject of our inquiry wouldn't risk raising its price since if that firm tried to raise its price, it wouldn't matter because its customers would quickly find somewhere else to go. On the other hand, if competitors and customers wouldn't react severely, then the firm we are considering would likely go ahead and do what it can to make more money.

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All the various things that could deter firms from engaging in monopolistic practices and harming customers after a merger are called competitive constraints. Here's a list of some of the ones that economists commonly look at:

Demand	Supply
Substitutes in demand based on products and geography	Product repositioning
Consumer switching costs	Elasticity of supply
Two-sided platform constraints resulting from loss of complementary sales/indirect network effects	Barriers to entry including scale economies, network effects, regulation
Innovation and feature competition	Innovation and feature competition

A good antitrust inquiry goes through these, checks off those that are significant impediments to raising price, and then assesses how serious these constraints are. Few and weak constraints mean firms can do bad things, while many or strong constraints mean they can't.

Market power is the short hand for the total effect of all these constraints on businesses doing bad things.

Now I want to return to how we measure market power, but before let's talk about why we consider market power at all.

For antitrust, the level of market power is a way to "screen" firms or practices that deserve a closer look. Without significant market power, a firm couldn't realistically exclude competitors through tying, bundled rebates, predatory pricing, refusal to supply, exclusive dealing, or other restraints of trade that we typically consider under the rule of reason. Without enough market power, a firm wouldn't have the ability to impose restraints because its customers would turn to other suppliers. It wouldn't have the incentive to impose constraints because it wouldn't be able to make any profit from doing so. If a firm does have significant market power, however, its business practices could harm competition. Whether they really would likely harm competition becomes the next step of the inquiry. The screen allows the competition authority and the courts to quickly dispose of cases where an antitrust violation isn't plausible and focus their resources on practices that could really matter to consumers.

Under Article 102 of the EU Treaty, for example, firms are prohibited from engaging in various exploitative and exclusionary practice—but only if they are dominant. Under EU law being dominant is pretty much the same as having significant market power. Market power will be a contentious issue in the European Commission's investigation of Google's search engine business. Google's adversaries argue it is hard for other firms to compete for search and advertising customers. Google responds that competition is only a click away. Consumers could easily switch if they could get a better deal.

For merger cases, what we really care about is how the consolidation changes market power. We're not questioning the current structure of the market, so we don't care whether either or both firms have market power. We're interested in finding out whether the proposed consolidation increases the amount of market power that the firms have by so much that the combined firms will make things materially worse for their consumers—whether that's by higher prices or lower quality or less innovation or any of the other things competing firms do to benefit consumers.

Assessing that market power is the main focus of merger inquiries. The U.S. Department of Justice ("DOJ") allowed the only two providers of satellite radio in the United States to merge because it concluded that the combined firm wouldn't have market power. If Sirius and XMRadio tried to raise their prices significantly, consumers would be able to turn to their iTunes or other online music providers, free over-the-air radio, CDs, Internet radio, or many other sources. This dispute isn't over, even though the companies merged almost three years ago. Class action lawyers are still trying to argue that consumers were harmed from this combination. Sirius XM Radio did, in fact, raise its subscription prices significantly although they also almost went bankrupt.

So how do we know whether there is significant market power, or a significant increase in market power? I'm going to argue that in the end there is really only one reliable way to judge. You have to go to straight to the source and look at the things that can give firms strength, or make them weak, when it comes to dealing with their customers.

I'm afraid that courts and competition authorities have searched for simple ways to avoid doing the work that goes into this analysis. Rather than going right to the source, they have looked for indirect indicators of market power.

The most common approach uses market shares: 1) define a market, 2) calculate the share of sales held by the firm under examination, and 3) determine whether this share is bigger than some benchmark that is thought to correspond to significant market power. For monopolization cases, that benchmark is about 50 percent under EU case law and about 60 percent under U.S. case law. For mergers, the approach is a bit more sophisticated. The market power screen is based on how concentrated the market is to begin with, and how much more concentrated the market would become if the merger took place. But it is still all based on shares. The most common approach uses the Herfindal Hirschman Index—known as the "HHI"—which is based on taking the share of each firm in the relevant market, squaring it, and adding all those shares together.

This is the sidekick problem. Market power isn't really doing any thinking here at all; everything is based on market definition. And market definition isn't very good at assessing market power. Most markets are differentiated so that the firms are not close substitutes for each other. In these cases adding up the shares of these firms is like adding up apples and oranges and pears and so forth.

The satellite merger case I mentioned earlier illustrates this. The DOJ thought that looking at the combined share of Sirius and XMRadio in a satellite radio market overstated their market power before and after the merger. At the same time it wouldn't make any sense to add up the shares of iTunes, CDs, free radio and so forth. Those are very different alternatives.

Now sometimes sidekicks are worth listening too; I think market share is like that. In assessing market power you usually want to at least look at shares. You just don't want to place too much faith in them.

Over the last twenty years competition authorities and courts in the United States and Europe have increasingly relied on economics to separate good and bad business behavior.

However, there is little basis in either the theoretical or empirical economics literature for using market shares to determine whether a particular business behavior could harm consumers. Market shares are to economics what blood letting is to medicine.

Economists are responsible, though, for the second flawed approach to assessing market power. In elementary economics textbooks, and in the lectures economists give beginning students, competition beats prices down to marginal cost. If you believe that, you can treat price equals marginal cost as the benchmark. Higher markups over marginal cost indicate more market power. The DOJ relied on high markups to prove that Microsoft had significant market power in the old Internet Explorer case. Microsoft's operating margin on Windows was over 80 percent.

But there are major problems with the markup approach. In the real world, virtually all firms charge prices that are greater than their marginal costs even though they operate in industries that seem quite competitive. I'll bet you there is not a restaurant in Mexico City that charges its customers the marginal cost of serving them. Firms have to charge more than marginal cost to survive. They have fixed costs to recover, plus they need to make enough profit to cover the risks of starting a business and of being in business. Firms with market power charge more than marginal cost but then so does almost everyone else. Markups do not prove much.

That's especially so in the web-based economy. Let's go back to the Google case in Europe. Google doesn't charge people for searching and, if anything, it is probably losing at least a little bit of money for every search performed. The fact that it is giving search away for free doesn't mean that Google lacks market power, because, of course, its real business is selling advertising. Now it makes a lot of money on advertising, where there are massive markups. But maybe it doesn't have any market power if competition is just a click away—that is, if consumers would quickly switch to a better search engine. In the web-based economy massive switches are not implausible. Look at what happened to MySpace. Just a few years ago it was by far the leading social network. Now Facebook leads as people and advertisers are deserting MySpace in droves.

For merger cases, the U.S. authorities have tried to move away from screens based on market shares to screens that have more of a basis in modern economics. Farrell and Shapiro have developed the upward pricing pressure ("UPP") index to test whether a merger would increase market power and thereby lead to higher prices. We can debate the pros and cons of their UPP index. But at least it is an effort to try to measure market power based on the actual economic situations of the merging parties.

Courts in the United States and the European Union really want to measure market power like we measure the temperature on a single scale. And they really want to have a dividing point like the boiling point of 100 degrees Celsius to separate the weak from the powerful. Unfortunately, this quest for a thermometer of market power is based on an impossible dream. The market power thermometer can't exist, and those who think they have found it in market shares or markups or anything else have strayed very far from reality.

Most markets are complex and real-world competition takes place in many dimensions. Market shares and markups work fine in the blackboard world of homogenous firms that compete only on the basis of price. But even the textbook model of wheat is more complicated that that. There are many varieties and grades of wheat. There are dramatic differences in topography, soil, and climate that result in differences of quality. Wheat farmers compete in many ways to seek advantages over each other.

In my view, good antitrust analysis assesses market power by following three steps:

1. Learn about the realities of the environment in which the firm competes. What's the role of scale economies? How important is innovation? Is it multi-sided—in other words is the business based on serving as an intermediary between two distinct groups of customers like searchers and advertisers? Are there important market institutions or government regulation that affects the dynamics of competition?
2. Examine competitive constraints in this market carefully. Are there close substitutes? What are the barriers to competing with the firm? Consider the other factors detailed in the chart on page 3.
3. And, given these competitive constraints, assess whether the firm we are looking at has enough market power to do bad things.

The obvious criticism of this approach is that it is ultimately judgmental. To use the thermometer analogy, all the analyst can say is whether it feels hot, but not whether it is 30 degrees centigrade. Now it would be great if we really had a thermometer of market power. After all, it would seem much more scientific to say that a firm is in the 90th percentile of market power rather than saying (waving our hands a bit) a firm seems pretty powerful. Using market share and markup measures gives us that sense of scientific precision. But it is false precision, like the judges' scores in a beauty contest.

It is this judgmental approach to market power that I want to make the star—or more of the star—of antitrust analysis. Market definition with its sharp lines and precise answers is handsome. It is Batman played by Christian Bale who lives in the cartoon city of Gotham where there is only good and evil. Market power is Batman's sidekick when it is just based on market definition-driven market shares or another superhero, Spider Man maybe, when it is based on markup rules.

But markets are messy and complicated in real life. There is, therefore, no reliable substitute in practice for analyzing competitive constraints in antitrust and merger cases. We need a star that is real flesh and blood, a star who can deal with the nuances of what happens in the real world, someone like Humphrey Bogart in *Casablanca*. In antitrust that star, warts and all, is market power, but market power based on the careful study of competitive constraints.