

Attention Markets: They Know Them When they See Them

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A raft of progressive scholars in recent years have argued that antitrust law remains [blind](#) to the emergence of so-called “[attention markets](#),” in which firms compete by converting user attention into advertising revenue. This blindness, the scholars argue, has caused antitrust enforcers to clear harmful mergers in these industries.

It certainly appears the argument is gaining increased attention, for lack of a better word, with sympathetic policymakers. In a recent [call for comments](#) regarding their joint merger guidelines, the U.S. Justice Department (DOJ) and Federal Trade Commission (FTC) ask:

How should the guidelines analyze mergers involving competition for attention?
How should relevant markets be defined? What types of harms should the guidelines consider?

Unfortunately, the recent scholarly inquiries into attention markets remain inadequate for policymaking purposes. For example, while many progressives focus specifically on antitrust authorities’ decisions to clear Facebook’s 2012 acquisition of Instagram and 2014 purchase of WhatsApp, they largely tend to ignore the competitive constraints Facebook now faces from TikTok ([here](#) and [here](#)).

When firms that compete for attention seek to merge, authorities need to infer whether the deal will lead to an “attention monopoly” (if the merging firms are the only, or primary, market competitors for some consumers’ attention) or whether other “attention goods” sufficiently constrain the merged entity. Put another way, the challenge is not just in determining which firms compete for attention, but in evaluating how strongly each constrains the others.

As this piece explains, recent attention-market scholarship fails to offer objective, let alone quantifiable, criteria that might enable authorities to identify firms that are unique competitors for user attention. These limitations should counsel policymakers to proceed with increased rigor when they analyze anticompetitive effects.

The Shaky Foundations of Attention Markets Theory

Advocates for more vigorous antitrust intervention have raised (at least) three normative arguments that pertain attention markets and merger enforcement.

- First, because they compete for attention, firms may be more competitively related than they seem at first sight. It is sometimes said that these firms are [nascent competitors](#).
- Second, the scholars argue that all firms competing for attention should not automatically be included in the same [relevant market](#).
- Finally, scholars argue that enforcers should adopt policy tools to measure market power in these attention markets—*e.g.*, by applying a [SSNIC](#) test (“small but significant non-transitory increase in cost”), rather than a SSNIP test (“small but significant non-transitory increase in price”).

There are some contradictions among these three claims. On the one hand, proponents advocate adopting a broad notion of competition for attention, which would ensure that firms are seen as competitively related and thus boost the prospects that antitrust interventions targeting them will be successful. When the shoe is on the other foot, however, proponents fail to follow the logic they have sketched out to its natural conclusion; that is to say, they underplay the competitive constraints that are necessarily imposed by wider-ranging targets for consumer attention. In other words, progressive scholars are keen to ensure the concept is not mobilized to [draw broader market definitions](#) than is currently the case:

This “massive market” narrative rests on an obvious fallacy. Proponents argue that the relevant market includes all substitutable sources of attention depletion,” so the market is “enormous.”

Faced with this apparent contradiction, scholars retort that the circle can be squared by deploying new analytical tools that measure attention for competition, such as the so-called SSNIC test. But do these tools actually resolve the contradiction? It would appear, instead, that they merely enable enforcers to selectively mobilize the attention-market concept in ways that fit their preferences. Consider the following [description of the SSNIC test](#), by John Newman:

But if the focus is on the zero-price barter exchange, the SSNIP test requires modification. In such cases, the “SSNIC” (Small but Significant and Non-transitory Increase in Cost) test can replace the SSNIP. Instead of asking whether a hypothetical monopolist would increase prices, the analyst should ask whether the monopolist would likely increase attention costs. **The relevant cost increases can take the form of more time or space being devoted to advertisements, or the imposition of more distracting advertisements.** Alternatively, one might ask whether the hypothetical monopolist would likely impose an “SSNDQ” (Small but Significant and Non-Transitory Decrease in Quality). The latter framing should generally be avoided, however, for reasons discussed below in the context of anticompetitive effects.

Regardless of framing, however, **the core question is what would happen if the ratio between desired content to advertising load were to shift.**

Tim Wu makes roughly the [same argument](#):

The A-SSNIP would posit a hypothetical monopolist who adds a 5-second advertisement before the mobile map, and leaves it there for a year. **If consumers accepted the delay, instead of switching to streaming video or other attentional options, then the market is correctly defined and calculation of market shares would be in order.**

The key problem is this: consumer switching among platforms is consistent both with competition and with monopoly power. In fact, consumers are more likely to switch to other goods when they are faced with a monopoly. Perhaps more importantly, consumers can and do switch to a whole range of idiosyncratic goods. Absent some quantifiable metric, it is simply impossible to tell which of these alternatives are significant competitors.

None of this is new, of course. Antitrust scholars have spent decades [wrestling with similar issues](#) in connection with the price-related SSNIP test. The upshot of those debates is that the SSNIP test does not measure whether price increases *cause users to switch*. Instead, it examines whether firms *can profitably raise prices* above the competitive baseline. Properly understood, this nuance renders proposed SSNIC and SSNDQ tests (“small but significant non-transitory decrease in quality”) unworkable.

First and foremost, proponents wrongly presume to know how firms would choose to exercise their market power, rendering the resulting tests unfit for policymaking purposes. This mistake largely stems from the conflation of price levels and price structures in two-sided markets. In a two-sided market, the price *level* refers to the cumulative price charged to both sides of a platform. Conversely, the price *structure* refers to the allocation of prices among users on both sides of a platform (*i.e.*, how much users on each side contribute to the costs of the platform). This is important because, as Jean Charles Rochet and Jean Tirole show in their [Nobel-winning work](#), changes to either the price level or the price structure both affect economic output in two-sided markets.

This has powerful ramifications for antitrust policy in attention markets. To be analytically useful, SSNIC and SSNDQ tests would have to alter the price level while holding the price structure equal. This is the opposite of what attention-market theory advocates are calling for. Indeed, increasing ad loads or decreasing the quality of services provided by a platform, while holding ad prices constant, evidently alters platforms’ chosen price structure.

This matters. Even if the proposed tests were properly implemented (which would be difficult: it is unclear what a 5% quality degradation would look like), the tests would likely lead to false negatives, as they force firms to depart from their chosen (and, thus,

presumably profit-maximizing) price structure/price level combinations.

Consider the following illustration: to a first approximation, increasing the quantity of ads served on YouTube would presumably decrease Google's revenues, as doing so would simultaneously increase output in the ad market (note that the test becomes even more absurd if ad revenues are held constant). In short, scholars fail to recognize that the consumer side of these markets is intrinsically related to the ad side. Each side affects the other in ways that prevent policymakers from using single-sided ad-load increases or quality decreases as an independent variable.

This leads to a second, more fundamental, flaw. To be analytically useful, these increased ad loads and quality deteriorations would have to be applied from the competitive baseline. Unfortunately, it is not obvious what this baseline looks like in two-sided markets.

Economic theory tells us that, in regular markets, goods are sold at marginal cost under perfect competition. However, there is no such shortcut in two-sided markets. As David Evans and Richard Schmalensee [aptly summarize](#):

An increase in marginal cost on one side does not necessarily result in an increase in price on that side relative to price on the other. More generally, the relationship between price and cost is complex, and the simple formulas that have been derived by single-handed markets do not apply.

In other words, while economic theory suggests perfect competition among multi-sided platforms should result in zero economic profits, it does not say what the allocation of prices will look like in this scenario. There is thus no clearly defined competitive baseline upon which to apply increased ad loads or quality degradations. And this makes the SSNIC and SSNDQ tests unsuitable.

In short, the theoretical foundations necessary to apply the equivalent of a SSNIP test on the "free" side of two-sided platforms are largely absent (or exceedingly hard to apply in practice). Calls to implement SSNIC and SSNDQ tests thus greatly overestimate the current state of the art, as well as decision-makers' ability to solve intractable economic conundrums. The upshot is that, while proposals to apply the SSNIP test to attention markets may have the trappings of economic rigor, the resemblance is superficial. As things stand, these tests fail to ascertain whether given firms are in competition, and in what market.

The Bait and Switch: Qualitative Indicia

These problems with the new quantitative metrics likely explain why proponents of tougher enforcement in attention markets often fall back upon qualitative indicia to resolve market-definition issues. As John Newman [writes](#):

Courts, including the U.S. Supreme Court, have long employed practical indicia as a flexible, workable means of defining relevant markets. This approach considers **real-world factors: products’ functional characteristics, the presence or absence of substantial price differences between products, whether companies strategically consider and respond to each other’s competitive conduct, and evidence that industry participants** or analysts themselves identify a grouping of activity as a discrete sphere of competition. ...The SSNIC test may sometimes be massaged enough to work in attention markets, but **practical indicia will often—perhaps usually—be the preferable method.**

Unfortunately, far from resolving the problems associated with measuring market power in digital markets (and of defining relevant markets in antitrust proceedings), this proposed solution would merely focus investigations on subjective and discretionary factors.

This can be easily understood by looking at the FTC’s [Facebook complaint](#) regarding its purchases of WhatsApp and Instagram. The complaint argues that Facebook—a “social networking service,” in the eyes of the FTC—was not interchangeable with either mobile-messaging services or online-video services. To support this conclusion, it cites a series of superficial differences. For instance, the FTC argues that online-video services “are not used primarily to communicate with friends, family, and other personal connections,” while mobile-messaging services “do not feature a shared social space in which users can interact, and do not rely upon a social graph that supports users in making connections and sharing experiences with friends and family.”

This is a poor way to delineate relevant markets. It wrongly portrays competitive constraints as a binary question, rather than a matter of degree. Pointing to the functional differences that exist among rival services mostly fails to resolve this question of degree. It also likely explains why advocates of tougher enforcement have often [decried the use of qualitative indicia](#) when the shoe is on the other foot—*e.g.*, when authorities concluded that Facebook did not, in fact, compete with Instagram because their services were functionally different.

A second, and related, problem with the use of qualitative indicia is that they are, almost by definition, arbitrary. Take two services that may or may not be competitors, such as Instagram and TikTok. The two share some similarities, as well as many differences. For instance, while both services enable users to share and engage with video content, they differ significantly in the way this content is displayed. Unfortunately, absent quantitative evidence, it is simply impossible to tell whether, and to what extent, the similarities outweigh the differences.

There is significant risk that qualitative indicia may lead to arbitrary enforcement, where markets are artificially narrowed by pointing to superficial differences among firms, and where competitive constraints are overemphasized by pointing to consumer switching.

The Way Forward

The difficulties discussed above should serve as a good reminder that market definition is but a means to an end.

As William Landes, Richard Posner, and Louis Kaplow have all observed ([here](#) and [here](#)), market definition is merely a proxy for market power, which in turn enables policymakers to infer whether consumer harm (the underlying question to be answered) is likely in a given case.

Given the difficulties inherent in properly defining markets, policymakers should redouble their efforts to precisely measure both potential barriers to entry (the obstacles that may lead to market power) or anticompetitive effects (the potentially undesirable effect of market power), under a case-by-case analysis that looks at both sides of a platform.

Unfortunately, this is not how the FTC has proceeded in recent cases. The FTC's [Facebook complaint](#), to cite but one example, merely assumes the existence of network effects (a potential barrier to entry) with no effort to quantify their magnitude. Likewise, the agency's assessment of consumer harm is just two pages long and includes superficial conclusions that appear plucked from thin air:

The benefits to users of additional competition include some or all of the following: additional innovation ... ; quality improvements ... ; and/or consumer choice In addition, by monopolizing the U.S. market for personal social networking, Facebook also harmed, and continues to harm, competition for the sale of advertising in the United States.

Not one of these assertions is based on anything that could remotely be construed as empirical or even anecdotal evidence. Instead, the FTC's claims are presented as self-evident. Given the difficulties surrounding market definition in digital markets, this superficial analysis of anticompetitive harm is simply untenable.

In short, discussions around attention markets emphasize the important role of case-by-case analysis underpinned by the consumer welfare standard. Indeed, the fact that some of antitrust enforcement's usual benchmarks are unreliable in digital markets reinforces the conclusion that an empirically grounded analysis of barriers to entry and actual anticompetitive effects must remain the cornerstones of sound antitrust policy. Or, put differently, uncertainty surrounding certain aspects of a case is no excuse for arbitrary speculation. Instead, authorities must meet such uncertainty with an even more vigilant commitment to thoroughness.

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