

GETTING IT RIGHT: MARKET DEFINITION IN THE TECHNOLOGY SECTOR

Rob Mahini

June 30, 2020

For decades, market definition was the starting point for most antitrust matters because of the widespread view that it allowed courts to divine market power. Over the past three decades, reliance on this approach [has diminished](#), as antitrust [has appropriately shifted](#) from maintaining arbitrary levels of static concentration and competitor headcount to preserving competition, maximizing output, and protecting consumers. Shifting to an evidence- and effects-based antitrust framework [is particularly warranted](#) in the rapidly-changing and dynamic technology sector where new products and services quickly challenge incumbents.

Nonetheless, given that market definition remains part of antitrust analysis in the United States and elsewhere, it is important that its application to the technology sector be grounded in sound economic and evidentiary principles. Flawed approaches are likely to result in market definitions that are static, overly narrow, or otherwise do not reflect market realities and, worse, enforcement decisions that do not focus on whether the conduct at issue has reduced competition and harmed consumers.

Market Definition in Technology-Driven Industries Present Unique Challenges

Assessing product markets in the high-technology sector typically presents demanding requirements for antitrust practitioners. The most important of these is to account for the two-sided nature of many high-technology firms as well as the dynamic competition and ease of entry in the sector.

First, antitrust practitioners must take into account as part of their overall analysis that many companies in the technology sector operate as two- or multi-sided platforms. The demands for products and services on each side are linked: price and quality changes on one side of the platform affect demand on the other side of the platform. For example, the ability of advertisers to monetize effectively on a website allows that website to offer valuable services for free and increases the incentive to improve quality to compete for additional users. If there is a decline in the website's quality, users might turn to other sites, which would in turn have an impact on the attractiveness of the website to advertisers. Thus, if users turn elsewhere because they do not like changes to the website or find its ads to be disruptive, advertisers could turn to the many other advertising alternatives available to them.

Because pricing decisions and design choices on the two sides are interrelated, the competitive constraints faced by a platform can be assessed only by taking into account the competition that multi-sided platforms face on the different sides of the platform. (Two-sided platforms often face competition from both two-sided platforms and business models that operate on only one side.) While the two-sided nature of a platform may not end the inquiry, we need to account for the competitive constraints and effects on both sides of the platform

Second, because the technology sector is highly dynamic, it can be difficult to determine who is “in” and who is “out” of the market. For example, an increasing number of companies provide search results for a range of products and services—such as travel, news, and shopping verticals. These developments make attempts to define a “search” product market more complex because different verticals may overlap. In other words, simply assessing a “general search engine” market would not account for the competitive dynamics introduced by many successful vertical search providers, such as Amazon, eBay, Yelp, Expedia, Pinterest, TripAdvisor, and Skyscanner.

Therefore, in order to be useful to antitrust analysis, the market definition process must recognize that often firms that provide differentiated services still exert substantial competitive pressure on each other and thus must guard against artificially narrow product market definition.

Relatedly, the dynamic nature of competition in the technology sectors warrants substantial caution in using static market definitions to determine market power. As the D.C. Circuit’s [Microsoft decision](#) observed, what looks like a dominant position in a dynamic, highly innovative market due to a high market share [might be transient](#). A startup can quickly become a competitive force with a new idea—we are currently seeing that dynamic play out with companies like TikTok and Zoom. TikTok reached a valuation of [\\$75 billion earlier this year](#), and Zoom’s market cap [has reached \\$50 billion](#). Established companies can also become challengers in new markets: Microsoft began as an operating system company, and [now competes in a variety of other markets](#), *e.g.*, versus Apple in hardware, Amazon in cloud, Google in search and mapping, and Nintendo and Sony in gaming consoles.

Third, low costs of entry in the technology sector should be taken into account when defining markets. Entry costs in technology markets are low because of the lack of need for physical infrastructure, advances in cloud computing, the [low cost and easy accessibility of online advertising](#), etc. For example, while it can be costly to start a new car company that requires enormous factories and sourcing considerable amounts of materials, building a new digital offering may only take a few people and a small amount of capital, which can then reach millions of people, given the many low-cost distribution options. This makes the prospect of a new entrant considerably more likely in the technology space. It also means that a new entrant can achieve scale more quickly because, for example, the marginal cost of adding more cloud computing capacity is [very low](#).

The ability to multi-home and low customer switching costs further lowers the costs of entry and makes static market definitions and “nominal” market shares misleading. It takes only a couple of minutes to sign up for a new account on TikTok, for example, which helped enable TikTok to rapidly gain a big user base. And many users make use of Snapchat, TikTok, Instagram and other social media apps all at the same time. Consumers are not locked into a single app or service.

Similarly, users and drivers participating in ride sharing platforms, for instance, commonly multi-home, using Uber, Lyft, and Via. Likewise, users of food delivery platforms do so as well, *e.g.*, between Grubhub, DoorDash, OpenTable, Postmates, and UberEats. Gamers also multi-home, switching in the same day from mobile apps to PC-based games to one or more gaming consoles in their homes.

Multi-homing also occurs frequently in search and search advertising. Consumers readily navigate to services like Bing, Amazon, Walmart, Etsy and others for products and services like TripAdvisor, Expedia/Orbitz, Yelp, Booking.com and others for travel information. Consequently, if any of

these companies provided unhelpful search results, users could switch to other general or vertical search engines that provided higher-quality search results. Similarly, if any of these companies failed to provide advertisers with high conversion rates, [advertisers would quickly switch](#). Indeed, advertisers easily mix-and-match and try new advertising entrants, as the rapid rise of Amazon, TikTok, and Pinterest as advertising platforms has shown.

David Evans summarized concisely some of the factors that can lead to entry and possible displacement in [his paper](#) on dynamic competition among online platforms:

Online platforms face dynamic competition as a result of: disruptive innovation that provides opportunities for entry; competition from online platforms that have secured a toehold in one area but compete across multiple areas; the fragility of category leadership resulting from the fact that network effects are reversible and entry costs are low; and the prevalence of ad-supported models which result in seemingly disparate firms competing for consumer attention and advertiser dollars. The last two decades of online platform competition demonstrate that category leaders are often toppled, unexpectedly, through some combination of technological change, business model innovations, and cross-platform rivalry.

Indeed, the success of existing platforms often encourages, rather than discourages, the entry, expansion, or repositioning of platforms. For example, Snap recently announced that it would expand from being a successful messaging app to becoming a [full-fledged developer platform](#), taking on Google, Apple, and Facebook by “launching an app store, expanding its games platform and offering the facility for external developers to upload machine-learning models to build augmented reality experiences.” Snap’s decision to lean into next-generation technology like augmented reality follows the playbook of successful upstarts that rely on new innovation to leapfrog ahead.

Finally, it is important to recognize that so-called “big data” is not particularly meaningful in defining markets. Data typically is inexpensive and non-exclusive, and, consequently, readily available to participants in the technology sector. Put differently, data held by companies is [often non-rivalrous](#), meaning multiple companies might have the same data.

In addition, data has a short shelf-life. A big dataset on consumer behavior from even a year ago may well have limited value today. Moreover, the *quantity* of data does not necessarily correlate with the *quality*. For example, a smaller, more focused dataset might be more useful to a given company than a larger, less focused one. As venture capital firm Andreessen Horowitz has [noted](#):

Yet even with scale effects, our observation is that data is rarely a strong enough moat. Unlike traditional economies of scale, where the economics of fixed, upfront investment can get increasingly favorable with scale over time, the exact opposite dynamic often plays out with data scale effects: The cost of adding unique data to your corpus may actually go up, while the value of incremental data goes down!

While data is certainly important, coming up with a new, innovative idea is the key for new entrants. The sudden rise of TikTok shows that not possessing vast troves of data at launch does not prevent an entrant with a new innovative approach from becoming successful, even in the face of existing successful incumbents.

Conclusion

Market definition will continue to play a role in antitrust analysis in the technology sector. However, it will only be useful if done with careful adherence to sound economic principles and a keen eye for industry and firm characteristics and dynamics. As we've seen with TikTok's success, Zoom's sudden near-ubiquity, and Snap's decision to launch a new platform, the need to fully account for the highly dynamic nature of technology markets is critical to accurately understand the competitive realities facing tech companies today.