MONOPOLY | CONTESTABILITY

Monopoly, with one firm supplying the whole market, can result from the firm being more efficient and more innovative. It can also result from monopolistic practices (predation, exclusionary behaviors) and from government restrictions on suppliers.

Contestability means that even when a monopoly exists, the incumbent has no market power because of the presence of ready, equally capable competitors. In the limit, contestability renders industry structure (number of firms, market shares) irrelevant. If markets are contestable or nearly so, incumbent firms must charge prices equal to costs.[1]

Contestability and the potential for incumbents to lose their market positions to rivals and new entrants is of great importance in high-tech settings.

According to standard economics textbooks, monopoly yield four main results: One, the monopolist restricts output (selecting a quantity where marginal revenue equals marginal cost).[2] Two, the monopolist charges a price in the elastic part of the demand curve where many consumers are deciding whether to buy the product or not. Three, the output restriction causes inefficiency because some consumers with WTP above marginal cost do not purchase the product. Fourth, Consumer Surplus is reduced, with some being transferred to monopoly profit.[3,45]

Firms like British Telecom for telephone service in the UK, the US Post Office for mail delivery, and the Panama Canal Authority had monopoly status for centuries. Other firms have had something like monopoly status for long periods: Glaxo, the manufacturer of the top-selling drug Zantac of the last century; local cable TV operators; Intel with respect to its x86 microprocessors, Qualcomm with respect to certain 4G modem chips; and Microsoft with respect its Windows operating systems and Office software.

Whenever you observe firms holding dominant positions, the most important question is whether

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[1] This is the standard result for a monopoly charging a single price. This restriction of output – "the exercise of market power" – matches well to the Section 1 of the US Sherman Act that forbids "restraints of trade".
[2] Economists developed the concept of contestability in the 1980s with the deregulation of airlines. For example, even if only one airline served the Berlin-Chicago city pair, the incumbent might not be able to exercise any market power if rivals could quickly offer service and take away the incumbent's business.

[3] For details, see ch. 4, "Monopoly", Carlton and Perloff text; "Monopoly", EconomicsOnLine; or basic economics texts.

[4] The exercise of market power by an incumbent increases the likelihood of entry. In the single-price case, the monopolist leaves unserved all the consumers whose WTP is below the monopoly price but above marginal costs.

those positions are contestable by rivals and potential entrants.

Markets are *perfectly contestable* when (a) entry is fast, (b) entry does not requires large irreversible costs (i.e., the necessary investments can be reversed), (c) switching costs are low, and (d) potential entrants are equally efficient and capable as incumbents.[6]

The price-quantity equilibrium in perfectly contestable markets is where the industry average cost curve intersects market demand.[7] Consumers cannot, therefore, be harmed by a firm with a "dominant" share because other firms will replace it quickly if the dominant firm raises prices above costs or reduces quality.

Is Contestability relevant for high-tech industries? One might answer "no" given that successful entry is not frequently observed, and it is hard to imagine how some dominant firms could be displaced. However, evidence over longer periods suggests that the better answer may be "yes". Consider this commentary about a social media platform that we will refer to as "DOM" and its co-founder as "COOL":

> [I]f you change social networks, you not only have to move all your videos, audios, messages, photos elsewhere but you also lose your network of friends unless they migrate with you. DOM won't make that easy. Its massive user base will help maintain its dominance, according to co-founder COOL: "In social networking, there is a huge advantage to have scale. You can find almost anyone on our DOM platform and the more time that has been invested in the site, the more locked in people are. [8]

The platform referred to above was MySpace, and the kind of analysis quoted above led the brilliant Rupert Murdoch to acquire the firm in 2005 for $530M. Everything looked good post-acquisition. In 2008 the platform earned $850M in revenues and it was profitable.[9] Google signed a multi-year $900M deal to sell ads on the platform. With some analysts valuing MySpace at over $10B, Murdoch's investment rationale appeared sound.

The positive MySpace narrative was, however, short-lived. By the end of 2008, the four-year old Facebook displaced MySpace as the dominant social media platform. Murdoch sold MySpace

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[6] Various post-deregulation strategies by airlines – developing hubs, introducing loyalty programs, and entering into long term contracts for airport resources – countered the ability of rivals to contest.

[7] Rf. "Contestable Markets", Economicshelp.org.

[8] Victor Keegan, "Will MySpace ever lose its monopoly", *The Guardian*, February 8, 2007. https://www.theguardian.com/technology/2007/feb/08/business.comment.

[9] Eric Schonfeld, "Three Years Later, Buying MySpace Looks Like One of Murdoch's Smartest Bets," TechCrunch, October 15, 2008. https://techcrunch.com/2008/10/15/three-years-later-buying-myspace-looks-like-one-of- murdochs-smartest-bets/.

for $35M in 2011.

Similar monopoly narratives have been told about AOL, Blackberry, Amazon Web Services, eBay, and Netflix. AOL and Blackberry have vanished. AWS, eBay, and Netflix face keen competition and have lost market share. One might inquire whether these once dominant platforms priced their services too high given what I refer to as the *Platform Pricing Paradox*, i.e., any exercise of market power puts the dominant platform's user base at risk. That's a worthwhile line of inquiry. The other primary reason for losing dominance is that the incumbent loses its edge and rival came up with compelling innovations to encourage users to switch or gain new users to reach scale.[10] Google has enjoyed a monopoly status in search for years[11] but AI-powered search is on the way to disrupt Google's search-in-browser business model; as of August 2024, Perplexity AI is billed as one potential disrupter.[12] (As of the time of writing, OpenAI is also about to launch its challenger "SearchGPT"[13]) Who knew that 7-second videos would make TikTok a major force in social media? Other like Osborne's Personal Business computer -- the first portable computer, had "monopoly status" but for only a few months.[14]

More recent cases involving firms with "monopoly" positions are (i) Elon Musk's SpaceX, which is described as having a de facto monopoly on space transport, despite competition from Blue Horizon (owned by Jeff Bezos) and others, and (ii) Amazon, whose e-commerce clothing business is attracting intense competition from Shein.

It is unclear whether US antitrust policy and enforcement has kept up with the evidence on the durability of "monopolies" in high-tech industries. US authorities brought actions against Microsoft, which has had phenomenal success in maintaining its Office and Windows franchises. Cases have also been brought against Intel (x86 processors) and Qualcomm (4G modem chips) based on the claim that their contracts with buyers excluded rivals.

But given the evidence cited above, it is important to ask whether firms with very large market shares can exercise market power and, if they can, for how long? While we often cannot predict which entrants will succeed, it does seem that all high-tech markets are being contested to some extent on an ongoing basis. Intel x86 processor is now one of many microprocessors. In video-streaming we see fast shifts in users to new services. And with the advance of 5G, customers of Xfinity and Cox Communication that supply broadband services to homes and businesses using coaxial cables will are expected to be able to switch to broadband mobile services.

We also should expect big contests in payment systems and banking. Will commissions on digital transactions in China go to zero? Will PayPal have a role in digital? Will American

[10] Famous University of Chicago Law Professor, Richard A. Posner, made the argument in 1971 that incumbents with strong market positions tend to lose their competitive edge.
[11] https://www.wsj.com/tech/google-loses-federal-antitrust-case-27810c43/.
[12] https://www.ft.com/content/87af3340-2611-4650-9ae3-036927e9f65c.
[13] https://www.ft.com/content/16c56117-a4f4-45d6-8c7b-3ef80d17d254.
[14] https://www.digitaltrends.com/cool- tech/failed-tech- companies-most-notable/)

Express retain users of its high-end credit card?

The bottom-line: In high-tech settings, monopoly power and contestability are always in tension.

Firms in high-tech industries may be able to exercise monopoly power because the conditions for contestability are not met. The argument can be made that Apple has a lock on its user base because of switching costs and network effects. Even though Netflix lost a lot of its value, something similar might be said given the importance of economies of scale and scope as well as the firm's status as the largest platform company in the video-streaming industry.

On the other hand, high-tech settings feature Schumpeterian battles between innovation and competition.[15] Winners may take all or nearly all *until* ... they are displaced. It's fun to consider which dominant firms might fall in the next few years.

The implications of the tension between real monopoly power and contestability for valuations are profound. Market share and current-period earnings are important, but one needs to evaluate (i) the sources and durability of market power, (ii) potential for entrants to contest the markets, and (iii) the likelihood and nature of their success.[16]

Readings:

1. US Department of Justice & FTC, Horizontal Merger Guidelines § 5.3 (2010); "Competition and Monopoly", https://www.justice.gov/atr/competition-and-monopoly-single-firm-conduct-under-section-2-sherman-act-chapter-2.
2. Goldschlag, Nathan and Javier Miranda, "Business Dynamics Statistics of High Tech Industries," U.S. Census Bureau, Center for Economic Studies, December 2016.
3. William S. Baumol, "Contestable Markets: An Uprising in the Theory of Industry Structure," *The American Economic Review*, vol. 72, no. 1, (March 1982), pp. 1-15
4. "Creative Destruction," https://www.econlib.org/library/Enc/CreativeDestruction.html
5. Victor Keegan, "Will MySpace ever lose its monopoly", *The Guardian*, February 8, 2007. https://www.theguardian.com/technology/2007/feb/08/business.comment.
6. Eric Schonfeld, "Three Years Later, Buying MySpace Looks Like One of Murdoch's Smartest Bets," TechCrunch, October 15, 2008. https://techcrunch.com/2008/10/15/three-years-later-buying-myspace-looks-like-one-of-murdochs-smartest-bets/.
7. Richard A. Posner, (1971) "A Program for the Antitrust Division," University of Chicago

[15] Joseph Schumpeter said that *creative destruction* is the "essential fact about capitalism". Schumpeter, J. 1942. Capitalism, Socialism, and Democracy. New York: Harper & Bros.

[16] The required analysis is made yet more difficult by the following insight about attempted entry: A lack of observed successful entry is consistent with either (a) a monopolist being protected by high entry barriers, or (b) the incumbent not exercising monopoly power and thus discouraging entry. This insight is relevant when analyzing aggregate entry data. According to economists at the U.S. Census Bureau, the rate of entry into high-tech industries has declined in the last two decades.

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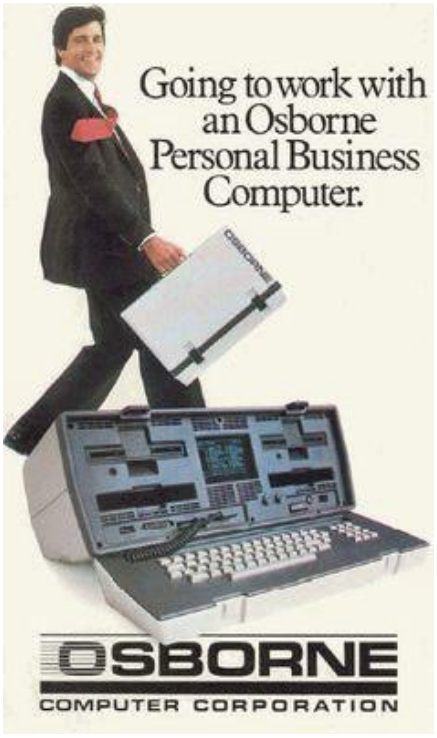
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