Investor Letter for the calendar year: 2023

Author: Timo Buss

Re: A History of Antitrust, Regulatory Risk and *United States v. Google*

Dear fellow investors,

Thank you very much for taking the time to read my investor letter. I have been advising the Patient Capital Fund for Hamburg-based fund boutique Covesto Asset Management since January 1st, 2020. Once a year, I would like to report to you the considerations which were important in advising the fund during the past calendar year, whether new significant investments were made, how the portfolio structure and performance at year-end turned out and, at the end, devote myself to one particular topic.

This year's particular topic is: **A History of Antitrust, Regulatory Risk and *United States v. Google*.**

The investor letter begins with a table showing the portfolio structure and a performance overview.

Portfolio Structure of Covesto Patient Capital (ISIN: DE000A2PR0E7)

NAV* as of 31.12.2023	128.64€
Weight of the largest investment	9.7%
Weight of the five largest investments	33.5%
Weight of the seventeen largest investments	78.8%
Weight of cash	2.4%

*The NAV refers to the I tranche that was launched on 11.02.2020 at 100.00€

My investment strategy for the Patient Capital Fund focuses on low trading activity with a very high concentration in the best investment ideas. The largest positions in the fund are regularly weighted near the maximum regulatory limit of 10% of the fund volume, the top 5 positions often make up ~40% of the fund volume (2023: 33.5%) and the top 17 positions normally represent >80% of total assets (2023: 78.8%). **I have invested ~100% of my liquid assets in the fund and will not make any investments in the capital market other than acquiring additional shares of this fund**.

On the next page, I would like to inform you about the ten largest holdings of the fund.

Alphabetical Listing of the Ten Largest Holdings of Covesto Patient Capital

Alimentation Couche-Tard → *NEW*

Alphabet → *current publication (Link): GOOGL:US | Alphabet*

CCL Industries

Constellation Software

Dino Polska

Fomento Económico Mexicano

Microsoft

Stella-Jones

S&P Global

VISA

The label *NEW* indicates positions among the ten largest holdings that were not part of the portfolio in the previous year (2023: 1). Out of last year's ten largest holdings, two were sold entirely: Activision Blizzard and SAP. All other movements are due to price changes or additions/reductions of long-term holdings. In case you would like to check upon the holdings more frequently, you can access the portfolio structure which is updated daily here including a breakdown by country, sector and currency

In the past calendar year, I recommended one new company to be included in the top 10: Alimentation Couche-Tard. I recommended a complete sale of two companies: Activision Blizzard at $94 per share, once the upside to Microsoft's $95 per share takeover offer was no longer attractive, and SAP after it closed a sizable part of its perceived valuation gap. Nine of the fund's ten largest holdings were already part of the portfolio during the previous year.

Performance Overview Net of All Costs (ISIN: DE000A2PR0E7)

Period	Covesto Patient Capital* (1)	DAX** (2)	Delta (1)-(2)
2020	10.2%	3.6%	+6.7%
2021	22.4%	15.8%	+6.6%
2022	(21.6%)	(12.4%)	(9.3%)
2023	30.3%	20.3%	+10.0%
cumulative since 2020	37.8%	26.4%	+11.4%

*The performance relates to the S tranche in 2020 only and to the I tranche from 2021 onwards (launch date: 11.02.2020)

**The fund is not limited to German companies. I am therefore of the opinion that a tabular comparison with the domestic DAX index is only partially meaningful. A comparison with so-called world indices (in EUR), for which the renowned index providers regularly charge high fees, would be more substantiated in terms of informative value

The table shows the performance of the fund since I started advising it. In my Investor Letter for the 2020 calendar year, I explain why such a table provides little information about the skills of a fund advisor in the short run. Only in the long run, it will become clear whether a fund advisor creates repeatable value-add for his investors with a previously defined strategy. Next January (after five full calendar years of performance), I'll have a first detailed interim results discussion. My goal in advising the fund includes outperforming both the national as well as a global index in the long run and **I aim to achieve a performance of >10% p. a. on average for our investment in the fund**.

A History of Antitrust, Regulatory Risk and *United States v. Google*

I will now dive into the particular topic. The DOJ sued Google in 2020. Closing arguments are heard this week and a ruling is on the horizon. **How did we get here? What does it mean for shareholders?** This letter answers these questions in the following four subsections:

I. A HISTORY OF ANTITRUST

The Dark Days of Monopoly

Another 10% wage cut? The third in a year? In 1877, railroad workers have it with their bosses! Mass protests spread from Maryland to Pennsylvania, West Virginia, Ohio, Illinois, Missouri and Nebraska. The discontent of 100,000 striking workers quickly turns into violence. 39 buildings, 104 locomotives and over 1,200 railcars are torched in Pittsburgh when **Thomas A. Scott**, president of the Pennsylvania Railroad Company (PRR), **suggests strikers should be fed *"a rifle diet for a few days and see how they like that kind of bread."*** Scott isn't one to mess with and PRR is the largest railroad at the time with a budget surpassing that of the U.S. government. In the ensuing days, the National Guard follows up on Scott's rhetoric and opens fire at rock-throwing strikers. 40 workers die. Federal troops enter the city to put an end to the uproar known today as the Great Railroad Strike of 1877.

John D. Rockefeller, Jr. testifies in Congress in 1914. Asked about the condition of striking workers in Colorado guarded by private sheriffs of his company Colorado Fuel and Iron Company (CF&I) he answers "*we expect to stand by the officers at any cost. It is not an accident that this is our position*". Asked by the Chairman if he will stick to his anti-union principle even ***"if it costs all your property and kills all your employees?", Rockefeller, Jr. answers: "it is a great principle."*** Two weeks later, CF&I guards and the Colorado National Guard cause one of the most gruesome clashes between an industrial monopoly and its workers. CF&I constitutes the largest coal mine operator in the Western U.S. at the time and is controlled by Rockefeller, Jr., son of epochal oil monopolist **John D. Rockefeller**. Mining work is extremely dangerous. Deaths from suffocation, explosions or collapsing shafts happen often. Demanding better working conditions and the recognition of a union, 1,200 CF&I miners decide to go on strike. Immediately, they are evicted from their company homes together with their families and relocate to a provisional tent colony, dubbed the Ludlow Camp. There, they face severe oppression by

CF&I guards and for protection from occasional sniper attacks, many campers dig pits under their tents. As one day the militia launches a machine gun attack on the camp and torches all tents, 2 women and 11 children suffocate in such a pit. 10 people die from gunfire. Ultimately, U.S. president Wilson dispatches federal troops to quell the violence stemming from the Ludlow Massacre of 1914.

Scott and Rockefeller, these men belonged to the *robber barons*, 19th century monopolists who amassed unprecedented wealth in industries like oil, steel, railroads or finance. As just described, severe injustices in how these monopolists treated their workers, customers and competitors were common. To reign them in, Congress passed a handful of laws preventing monopolization and restraint of trade. **Today, despite these laws being a century old, they are applied mostly unchanged to our modern economy**. I discuss how they came into effect and their misalignment with some of today's challenges below.

The Whereabouts of U.S. Antitrust Law

One of the initial irritations with antitrust law is its name. Why anti*trust* law and not e.g. anti*monopoly* law? Before the first federal competition laws in the late 19th century, corporate power was regulated at the state level. It was illegal for a company in one state to acquire stock in another state's company. However, John D. Rockefeller recognized that a trust as a legal holding entity could be used to circumvent the rule. In 1882, he consolidated 40 oil companies under his Standard Oil Trust and set centralized policies for the group thereafter. In doing so, Rockefeller eventually controlled ~90% of the U.S. oil refining capacity and created the most powerful monopoly of his era. Soon after, more trusts emerged and rolled up industries from steel, sugar, whiskey, copper to lead. The government was in dire need for a control mechanism and Congress thus passed three landmark antitrust laws: 1) the Sherman Act of 1890, 2) the Clayton Act of 1914 and 3) the FTC Act of 1914.[1] Please see the table below:

#	antitrust law	section	forbids
i)	Sherman Act	1	*"every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade"*
ii)	Sherman Act	2	*"monopolizing, attempts to monopolize or conspire to monopolize any part of trade or commerce"*
iii)	Clayton Act	2	*"price discrimination between different purchasers of commodities of like grade and quality"*
iv)	Clayton Act	3	*"the sale of goods on the condition that the purchaser shall not use goods of a competitor, where the effect may be to substantially lessen competition or create a monopoly"*
v)	Clayton Act	7	*"mergers where the effect of such acquisition may be substantially to lessen competition, or to create a monopoly"*
vi)	FTC Act	5	*"unfair or deceptive practices in commerce"*

[1] The Federal Trade Commission Act established the FTC, sharing antitrust enforcement jurisdiction with the DOJ

Six Major Federal Antitrust Statutes and What Each of Them Forbids

The three laws contain six important statutes: Here's what each of them means in plain English:

i) forbids companies to form a cartel, divide markets or fix prices. These acts are per se violations of the Sherman Act. *All* other violations are analyzed under the *rule of reason* standard where a court examines the net result of pro- and anticompetitive effects of the challenged acts and if they *unreasonably* restrain trade.

ii) specifically targets dominant companies and makes it illegal to acquire or maintain a monopoly through improper means. It's important to note that **having a monopoly due to a superior product or business acumen is perfectly *legal* and monopoly power will *not* be found unlawful *unless* accompanied by exclusionary or predatory practices!**

iii) prohibits charging different prices for the same product to different customers.

iv) makes two forms of distribution practices illegal but only if they substantially lessen competition: exclusive dealing and tying.

Exclusive dealing describes the sale of goods on the condition that the buyer won't deal with the seller's competitors.

Tying means the buyer must accept an undesired product to obtain a desired product. Both agreements are effectively examined under the *rule of reason* standard.

Exclusive dealing is often lawful due to its procompetitive benefits like a retailer specializing in marketing a seller's products to the consumer. Tying is deemed unlawful *only if* 1) the seller has sufficient market power in the tying product *and* 2) can't justify procompetitive benefits of his tying agreement.

v) prohibits M&A that substantially lessens competition. v) intensified the scope of ii) as it does not require a merger-to-monopoly situation. A planned merger will often draw significant scrutiny even if it will result "only" in a combined market share of 30%+ of the merging companies.[2] v) also requires a pre-merger notification to the FTC and DOJ.

vi) prohibits a company to use deceptive or misleading practices which are likely to be harmful to consumers (e.g. VW's "Clean Diesel" claim).

Once these six major U.S. antitrust statutes were put in place, all that was needed was an enforcer willing to confront the most powerful tycoons in modern history… a job for the nation's President.

[2] If a merger involves the elimination of a "maverick" in an already consolidated industry, the threshold can be much lower as seen early 2024 when the DOJ successfully blocked the JetBlue-Spirit-merger with a combined market share of just 9%

The Myth and Reality of "Trustbuster" President Roosevelt

Theodore "Teddy" Roosevelt became the youngest President in history at age 42 after the 25th U.S. President, William McKinley, was assassinated. He served from 1901 to 1909 and his Republican administration brought 43 lawsuits against some of the most powerful American trusts. Due to the vigorous enforcement of the Sherman Act, Roosevelt earned himself the reputation of a "trustbuster".

His first high-profile case was *Northern Securities Co. v. United States*, where he initiated a lawsuit in 1902 to dissolve the railroad trust of legendary Wall Street banker **John Piermont (J. P.) Morgan**.

J. P. Morgan and James Hill had just acquired control of Chicago, Burlington and Quincy Railroad[3] to merge it with their two own railroads under a trust named Northern Securities. The government argued the merger violated i) section 1 of the Sherman Act. Referring to p. 4, i) declares illegal "*every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade*". In 1904, the Supreme Court ruled 5-4 in favor of the plaintiff and Northern Securities was broken up into the three formerly independent railroads. One thing is noticeable here: After the ruling, Hill and Morgan received shares in all three separated companies proportional to their prior ownership in Northern Securities.

Why? Because the purpose of U.S. antitrust is to ensure a functioning competitive process amongst firms, not to expropriate shareholders.

After his first big victory, it may have seemed that "trustbuster" Roosevelt was determined to take on more monopolists like Morgan for ideological or social reasons. However, in retrospect, it seems he was less concerned about monopolies and more concerned about plutocrats who shouldn't feel as the nation's bosses. Because this was *his* job, the job of the President of the United States.

Having delivered that message successfully to Morgan, Roosevelt exploited antitrust law once more to deliver the same message to John D. Rockefeller. **His case against Rockefeller went down in history as *Standard Oil Co. of New Jersey v. United States*.**

In the next paragraph, I discuss the case against Standard Oil alongside the later one against AT&T as they lay the groundwork for what investors should expect from the impending trial against Google.

[3] The name may ring a bell at many of you because the firm was acquired by *Warren Buffett* 100 years later as part of BNSF

The Break-up of Standard Oil and the End of the First-Generation Robber Barons

Roosevelt ordered the DOJ to sue Standard Oil in 1906 under i) section 1 and ii) section 2 of the Sherman Act. Referring to p. 4, i) declares illegal "*every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade*" and ii) forbids "*monopolizing, attempts to monopolize or conspire to monopolize any part of trade or commerce*." While Rockefeller initially beat the competition due to superior refining technology, he later monopolized ~90% of the U.S. oil refining capacity by consolidating 40 oil companies under his Standard Oil Trust in 1882.

It is imperative to remember the following: having a monopoly due to a superior product or business acumen is perfectly *legal* and monopoly power will *not* be found unlawful *unless* accompanied by exclusionary or predatory practices.

In *Standard Oil Co. of New Jersey v. United States*, the Supreme Court found Rockefeller's monopoly guilty of a multitude of exclusionary and predatory practices such as: secret rebates from railroads, below-cost pricing if necessary to suppress local competition and espionage of competitors. The Supreme Court ruled to dissolve Standard Oil into 34 separate firms. The remedy was implemented between 1912-1914.

Despite being 100 years old, the case offers valuable insights that are still relevant for investors today:

1) *no expropriation*: Analogous to Morgan's Northern Securities verdict, Rockefeller and his associates received shares in each of the spin-offs proportional to their prior ownership.

2) *rule of reason*: The Supreme Court set the precedent that, going forward, not every restraint of trade will be found illegal as this interpretation would infringe freedom of contract. The plaintiff instead must prove that the challenged acts or contracts *unreasonably* restrain trade. Therefore, the plaintiff must demonstrate that 1) the seller has sufficient market power and 2) that the challenged acts lead to higher consumer prices, reduced output or quality. If successful, the burden shifts to the defendant to demonstrate *procompetitive justifications* for his behavior. **The *rule of reason* standard elevated the role of judges in organizing antitrust law and leads to situations where one judge finds acts restraining trade reasonable while another one finds them clearly unreasonable. Therefore, predicting court outcomes is tough!**

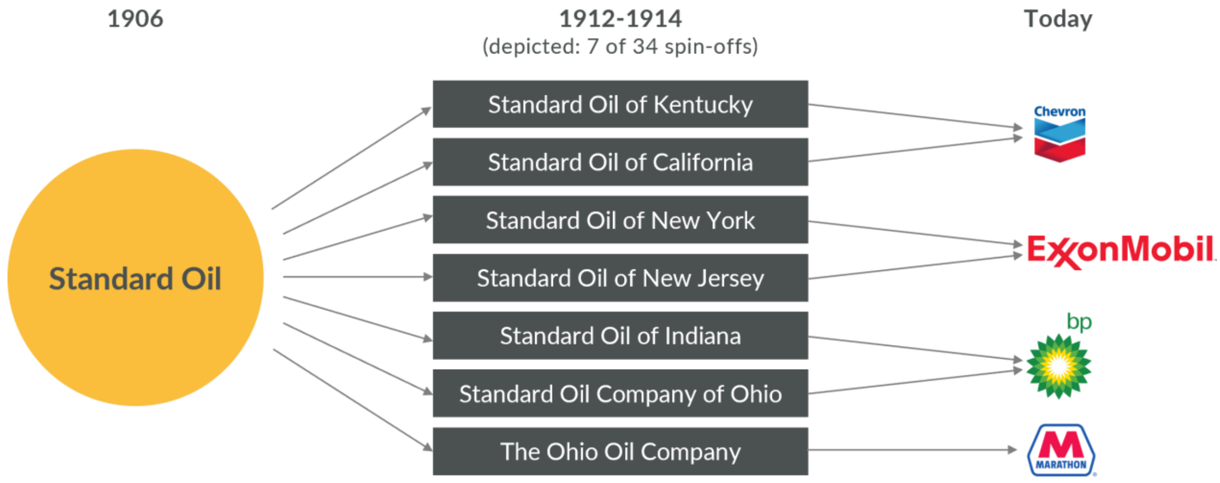
3) *end of the first-generation robber barons:* the Standard Oil break-up heralded the demise of the trusts and ended the first merger-to-monopoly wave. The heirs of Rockefeller or Morgan lived rich and socialite lives, but their influence would never again come close to their fathers'.

4) *length of cases ending with a structural remedy:* a break-up into its original parts is the natural remedy in a merger-to-monopoly case. Today, exclusionary practices cases are more prevalent, where the natural remedy is a cease-and-desist order and a fine. In the Standard Oil case, it took five years from filing the lawsuit to the final verdict. Five years can be regarded as the standard

length for similar cases today. The resulting criticism is that by the time a break-up is enforced, industries have often changed so much that the remedy has become irrelevant.

5) *effectiveness of break-ups*: The Standard Oil ruling substituted a national monopoly for a series of local monopolies. Evidence for the remedy's effectiveness – in form of lower oil or gasoline prices – is mixed (at best). Even without regulatory intervention, Standard Oil's market share was in decline as the discovery of abundant oil in Texas and Oklahoma – where the local government was hostile towards Rockefeller – ate into the monopolist's empire.

6) *long-term recombination of the spin-offs:* A counterintuitive finding is that the broken-up companies often merge back into their formerly challenged structure over time. This happens long after the industry's peak relevancy. Standard Oil's recombination is shown below.



With the Standard Oil Break-Up Enforced, Antitrust Marches on Towards New Heights

Standard Oil's descent ignited antitrust's ascent. It saw its peak between 1940-1970, when competition policy received a strong focus due to the scare of Hitler rising to power and the Nazis leveraging monopolies to prepare WWII. **The consensus at the time was that corporate concentration leads to consolidation of political power which serves as a breeding ground for antidemocratic forces**.

However, antitrust enforcement must always strike a fine line between being too active or passive and avoid two types of errors. A *type I error* is a false positive, i.e. intervention when the market should have been left alone. A *type II error* is a false negative, i.e. agencies staying on the sidelines when they should have stepped in. Continuous type I errors reduce incentives for companies to innovate if success leads to a penalty and type II errors result in monopolists not being stopped from harming consumers.

After WWII, enforcement agencies erred increasingly on the side of type I errors. Courts began to uphold flimsy cases like *United States v. Von's Grocery Co.* which fueled a backlash against the era's approach of economic structuralism. Before I'll delve into how this paved the way for a new school of antitrust interpretation, let's first highlight a rare bright spot in antitrust enforcement during that time.

The AT&T Case of 1974 – Widely Considered One of History's Most Successful Enforcement Actions

The DOJ took on telecommunications monopolist AT&T in 1974 with its case *United States v. AT&T*. It was filed under ii) section 2 of the Sherman Act which forbids "*monopolizing, attempts to monopolize or conspire to monopolize any part of trade or commerce.*"

At the time, AT&T operated four business divisions:

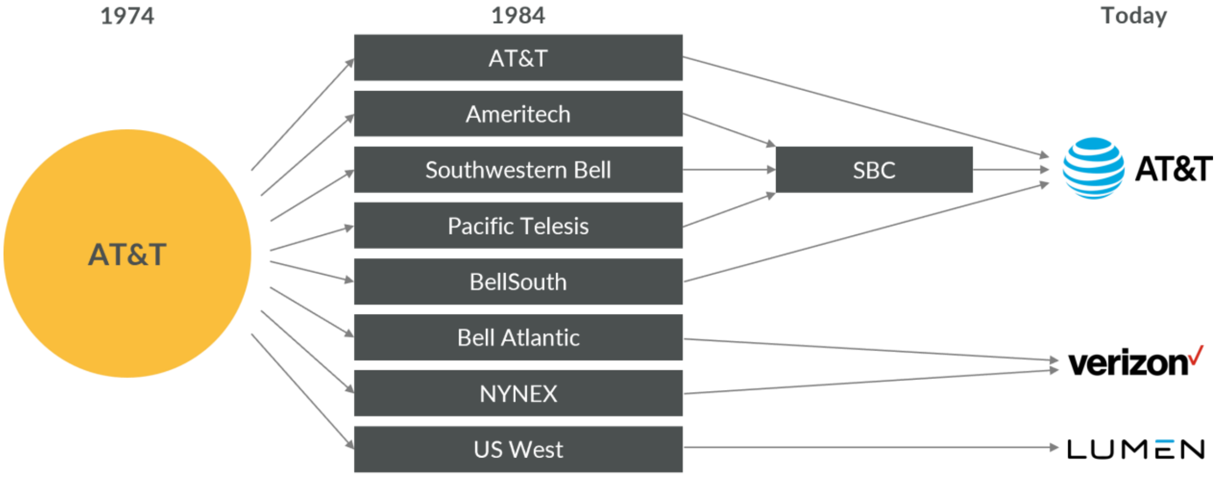
1) a total of 23 local telephone monopolies called the regional Bell operating companies (RBOCs),
2) a long-distance telephone call division,
3) a telco equipment manufacturer called Western Electric and
4) a research arm called Bell Labs

AT&T once was a natural monopoly because it was technologically and economically inefficient to create a parallel telephone network. But advances in technology – e.g. competitor MCI utilized microwaves instead of cable to transmit long-distance calls – rendered this formerly correct logic obsolete. Since we already know that having a monopoly due to a superior product, business acumen or in this case historical accident is perfectly legal, <u>for the DOJ to succeed with its case, it needed to prove in court that AT&T accompanied its monopoly power by exclusionary or predatory practices</u>.

The DOJ argued AT&T used monopoly profits from its regulated local phone monopolies to cross-subsidize non-regulated divisions, thereby stifling competition. AT&T also denied independent long-distance providers interconnection to its local Bell system and set up exclusive equipment purchasing agreements between Western Electric and the RBOCs, thereby restraining trade. The RBOCs supplied 80%+ of the nation's phones and AT&T's long-distance division handled 90%+ of all interstate calls.

In step 1, the judge unsurprisingly found both divisions to be monopolies. In step 2, he found AT&T had employed the exclusionary practices listed above and therefore denied consumers the benefits of a free and competitive market. As soon as AT&T realized it would lose, it wanted to have a say in designing the remedy. Therefore, instead of appealing, it settled by consent decree. It offered to spin-off its local phone monopolies into seven independently traded companies (the „Baby Bells") and to divest Bell Labs and Western Electric. On top of the break-up, it accepted provisions to provide external long-distance phone call providers like MCI fair interconnection with the Baby Bells.

The result of the remedies was manifold: As the Baby Bells were no longer bound to purchase all equipment from Western Electric, various telecommunications equipment manufacturers sprung up. Due to the interconnection provision, MCI and Sprint grew into viable long-distance competitors and long-distance prices for consumers dropped. As we already saw with Morgan's or Rockefeller's break-ups, AT&T shareholders received shares in each of the spin-offs proportional to their prior ownership. A final observation from the case is the long-term recombination of the spin-offs similar to what we have seen with Standard Oil (see next page).



The AT&T remedies are widely praised as some of the most successful in history. Criticism could still be derived from the fact that many countries got to the same result as the U.S. – i.e. falling long-distance prices – [by imposing simple equal access interconnection provisions on their monopolists]() without spending money on lengthy trials or expensive break-ups. **Thomas E. Kauper**, former assistant attorney general in charge of the case in 1974, reflected on this criticism in [his essay from 2009]():

"The question remains whether the case, with all its time and expense, was either unnecessary or futile. It could be argued the case was unnecessary because technological change could not be held back and would have worked to open markets even without the breakup, or because some less disruptive remedy – either in an antitrust court or in some regulatory process – could have affected the same outcome with far less disruption or expense. Or it could be argued it was futile in the sense that the industry, through a series of mergers and consolidations, has returned to the highly-concentrated markets that existed before the case was filed. AT&T, it is said, has simply recreated itself.

This last argument I find specious. It is true that concentration levels have been increasing across a spectrum of technologies. But it is a different, far more competitive set of markets. To be sure, vigilance is required to assure that they remain so. But we are nowhere near the entrenched monopoly of AT&T in 1974. Would technological change itself have brought competitive markets over time? In my view, it is at least clear that it would have taken far longer and would have required dramatic regulatory change. Had it been left to the FCC with the statutory authority it had in 1974, I see no reason to believe change would have come faster, at less expense, or more effectively.

The most difficult question for me is whether some less costly and disruptive remedy in the antitrust case could have achieved the same ends. I simply do not know whether a court-mandated open interconnection requirement, coupled with some equipment divestiture and sale of assets to a new company, would have been sufficient. *Assistant Attorney General Litvack was close to such a settlement but Bill Baxter found it unacceptable. Whatever the logic, the die was cast. In the end, and with the benefit of hindsight, the case acted as a catalyst that both facilitated rapid technological change and brought new regulatory regimes into being."*

II. OVERENFORCEMENT PAVES THE WAY FOR THE CHICAGO SCHOOL

So far, I have explored the origins of antitrust law and landmark precedents like *United States v. AT&T* or *Standard Oil Co. of New Jersey v. United States*. As noted prior, AT&T is a positive outlier in the postwar era's FTC and DOJ track record. **More often, the agencies intervened with the competitive process when they should have left it alone.** In this subsection, I'll illustrate two examples of blatant antitrust overreach in the 1950s and 60s and how erratic rulings paved the way for the Chicago School.

Brown Shoe Co. v. United States

In 1956, shoe retailer and manufacturer Brown Shoe acquired competing shoe retailer Kinney. Prior to the merger, Brown owned 470 stores and supplied 660 franchise outlets. Kinney operated 350 stores nationwide and the combined group controlled ~7% of all 22,000 U.S. shoe stores,[4] hardly a dominating position in a notoriously competitive industry with low barriers to entry.

Despite the low relevance of the group in a trivial industry, the DOJ challenged the merger based on an alleged violation of v) Section 7 of the Clayton Act. Referring to p. 4, v) prohibits mergers *"where the effect of such acquisition may be substantially to lessen competition, or to create a monopoly."*

In a controversial precedent, the Supreme Court sided with the plaintiff as it saw the merger resulting in "*a further substantial lessening of competition and an increased tendency toward monopoly.*" What made this ruling delicate, is the Court's chain of reasoning: First, it stated "*it is competition, not competitors*", which the Clayton Act protects and found the merger might have procompetitive benefits in the form of lower consumer prices as Brown shoes "*might be offered at lower prices in Kinney stores than elsewhere.*" Then, in a change of heart, the Court found lower prices could be harmful to Brown Shoe's competitors and decided to promote competition *"through the protection of viable, small, locally owned business*". **It finally ruled at odds with its premise that it's competition, not competitors, which the Clayton Act protects and ordered the merger to be reversed**. The Supreme Court valued the fate of less-efficient, non-integrated competitors highly even if consumers might not.

The Supreme Court Delivers Another Head-Scratcher in United States v. Von's Grocery Co.

If shoe retailing wasn't competitive enough, grocery retailing should qualify as a competitive industry with razor-thin margins. Yet, when supermarket chain Von's Grocery acquired competitor Shopping Bag Food Stores in 1960, the DOJ again took notice. Von's operated 28 grocery stores in Los Angeles and Shopping Bag 36 stores. In terms of revenue, the merging entities represented a combined 7.5% of the local retail grocery market. With favorable working capital characteristics and no switching costs for consumers, entry barriers in grocery retailing are even lower than in shoe retailing.[5] If you think this merger couldn't possibly be challenged by the DOJ… you're wrong!

[4] On a narrow city-by-city submarket definition – which I regard as questionable – the court found that the local combined market share of Brown and Kinney sometimes ranged higher, from 5 to 58 percent

[5] A study at the time found a modern supermarket in L.A. could be started with only $700k in capital outlay

The DOJ argued the merger violated v) Section 7 of the Clayton Act. At an initial hearing, the District Court found no reasonable probability at all that the merger would substantially lessen competition or create a monopoly. However, the Supreme Court later overruled this decision and ordered a divestiture in 1966. In its decision, the Supreme Court emphasized a structuralist interpretation of the antitrust laws whose purpose allegedly was to keep "*a large number of small competitors in business".* Puzzled by the Supreme Court's adjudication and its varying interpretation of the law, Justice Potter Stewart famously remarked in his dissent: *"**The sole consistency that I can find is that, in litigation under section 7, the Government always wins**."*

The mounting number of type I errors in antitrust enforcement and some of the Court's unsupported decisions paved the way for a new school of antitrust interpretation that leaned heavily towards pro-market, laissez-faire and type II errors… the Chicago School.

The Rise of the Chicago School

To understand the Chicago School, we must get to know a frequent traveler: Austrian economist and Nobel laureate **Friedrich August von Hayek**. As a teenager, Hayek fought in WWI and sympathized with socialism but experienced a change of heart during his time at University of Vienna where he turned into a classical liberal. Hayek's academic work focused on the co-ordination function of market prices and he cheered for minimal government intervention into the business cycle to not distort price signals.

In 1946, Hayek flew to the University of Chicago to start a think tank called the "Free Market Study" with fellow economists Milton Friedman, Henry Simons and – most importantly – Aaron Director. Director was a Russian-Jewish immigrant who spent his teenage years in Portland, a xenophobic city with a large KKK chapter at the time. He experienced frequent harassment and, even more than Hayek, felt drawn towards socialism in his early life. However, after studying at Yale and the University of Chicago, he too turned into a classical liberal. Hayek and Director were distinct free market advocates but also suspicious of too much corporate power. In the early stage of the Free Market Study, both identified as antimonopolists and Director explicitly called for limitations of corporate size.

Things took a sharp U-turn though when fellow antimonopolist Henry Simons committed suicide and the project's major backer, an ultra-right-wing foundation, pushed Director towards a more neoliberal stance. After losing Simons and with the foundation paying for Director's salary, he gave in. Contrary to his former beliefs, Director initiated a study which found no significant increase in monopoly power since the end of the first-generation robber barons. He concluded that contrary to leftist populism, competitive market forces will keep all companies in check, even really large ones.

Director was incredibly gifted in convincing colleagues of his new ideas. Nobel laureate George Stigler recalled that when Director "*began asking simple questions about some comfortable belief I had proposed or more likely simply repeated, the odds were high that I would end up with a different view* *of the matter."* Director persuaded Friedman to concede his antimonopoly stance and also converted a young law student at the University of Chicago who would soon become the nation's most sought-after antitrust expert and author a book which turned into the field's bible. That man… was **Robert H. Bork**.

Bork as the Chicago School's Poster Boy Captures Academia First and the Establishment Second

Studying under Director was an epiphany for Bork:"*A lot of us who took the antitrust course or the economics course underwent what can only be called a religious conversion. We came in believing in the beneficence of government intervention, and we left as converts to the gospel of the free market*".

Having only fond memories of his time at the University of Chicago, post-graduation Bork's career was off to a rocky start. While he landed a job as an associate attorney at prestigious law firm Kirkland Ellis in 1954, working in private practice exposed Bork to "*desolation*" and "*thoughts of despair and the rope*." In his memoir he reflected on this part of his career saying:"*The long hours, the pressure, the endless pursuit of billable hours, all began to wear on me. I found myself envying the young associates who still had the idealism and enthusiasm I had once possessed".*

In 1962, an opportunity arose to transition to academia. Unsurprisingly, Bork seized it and started teaching antitrust law at Yale. **From then on, he had more time to write and in 1978, he published his magnum opus "*The Antitrust Paradox: A Policy at War with Itself",* whose key message boils down to the following sentence known as the consumer welfare standard (CWS):"*The only legitimate goal of American antitrust law is the maximization of consumer welfare*."**

In his book, Bork argues that courts should only focus on the economic effects of corporate behavior and ignore social or political consequences of monopoly power. His theorem was designed to appeal to the vanity of judges who should base their rulings on hard concepts like price theory and allocative efficiency instead of soft beliefs about justice or fairness. Bork cleverly mocked the antitrust overreach after WWII and criticized that the Supreme Court instead of promoting competition, several times shielded small firms from vigorous competition with larger, more efficient rivals.

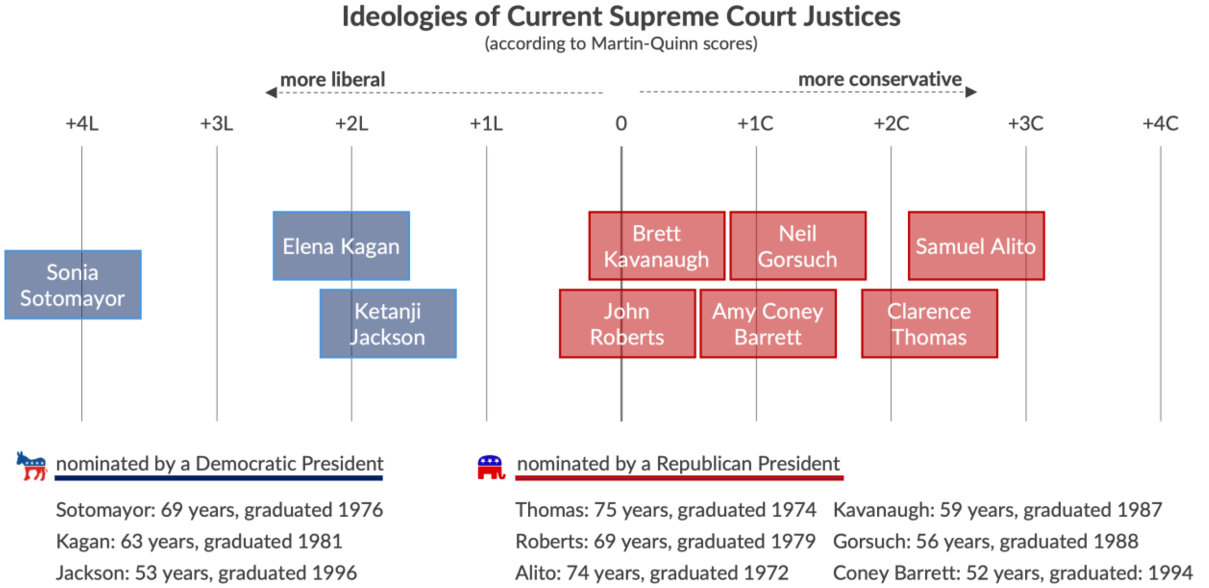
He compared the erratic enforcement regime to the sheriff of a frontier town, who "*did not sift evidence, distinguish between suspects, and solve crimes, but merely walked down main street and every so often pistol-whipped a few people.*" Bork's criticism deserves some merit: Using objective economic analysis to identify harm can indeed reduce the likelihood of ever subjective rulings but he simultaneously deemphasized some of antitrust's irrefutable achievements.

The Chicago School Becomes the All-Encompassing Force Reshaping Antitrust Policy

From the late 1960s on, the Chicago School was in ascent, gaining major acceptance in the 70s and 80s. It also received growing donations from corporate America. With increased resources, Chicago Schoolers invested in building institutions like academic summer camps where they would *wholesale* economic insights to law professors, judges and lawyers who would *retail* them to students or associates. Until the 1990s, nearly half of all federal judges took part in those camps and the Reagan administration appointed multiple Bork disciples to high courts.[6]

By 1980, the Chicago School had won the intellectual debate around antitrust policy when the Supreme Court declared *"Congress designed the Sherman Act as a consumer welfare prescription*". Afterwards, low consumer prices alone were viewed as evidence of sound competition and the CWS became the most important normative benchmark for 40 years. Together with a pro-market leaning president, a new merger wave loomed and in lockstep, the FTC and DOJ started to err more on the side of type II errors.

The emphasis on political and social aspects of monopoly power has ebbed and flowed through time. Recently though, several *Neo-Brandeisian* or *Hipster Antitrust* advocates graduated America's Ivy League universities – the most famous **Lina Khan** – author of a viral paper titled *Amazon's Antitrust Paradox.*[7] Khan was installed by Joe Biden as a progressive antitrust hawk to lead the FTC. **Despite this new wave, the high courts remain in the hands of conservative judges whose self-perception and career achievements rest on the laurels of the Chicago School.** The Supreme Court is considered the most business friendly which makes it difficult for weak cases to prevail all the way up the system.



[6] Bork himself was nominated for the Supreme Court by President Reagan which was rejected by the Senate. While no one dared to question Bork's qualifications, a campaign formed against his judicial philosophy as a hardliner and his combative temperament *("He looked, and talked, like a man who would throw the book at you – and maybe the whole country.")*

[7] I disagree with several of Khan's arguments, but I encourage you to read her well-written, career-defining paper to understand how a new generation of antitrust experts plans to reshape policy. Neo-Brandeisians view a sole focus on the CWS as being in betrayal of Congress' original intent of the antitrust laws, which they view as an order to protect a multitude of interests including those of employees, small competitors and ordinary citizens

III. HOW GOOGLE GOT INTO THE CROSSHAIRS OF REGULATORS

So far, you may think:"*What does this history lesson have to do with investing?*" I dare to say:"*a lot*."

For example, understanding the antitrust regime directly determined whether an investor made money in a merger arbitrage situation like *Microsoft-Activision* or lost money in a situation like *JetBlue-Spirit*. More broadly, it determines how an investor will handle regulatory risk if he/she owns technology or platform companies in winner-takes-most markets, which should face antitrust scrutiny sooner or later.[8]

A leader in a tech market will often end up a monopolist, whose quality of offerings cannot easily be matched by rivals with less benefits of scale. This is an important difference to old-economy business models where size advantages only go so far, marginal costs are meaningful and local economic moats matter. If what I just said holds true, it seems wise – *before the fact* – to form an idea around:

- **WHAT** can happen to your technology holdings should they be sued under antitrust law? (A: anything from cease-and-desist orders to penalties to potentially a break-up)
- **WHO** will decide if challenged corporate acts are unlawful? (A: a court in the U.S. vs. the European Commission in the first instance in the EU)
- **HOW LONG** will it take from a complaint to a verdict? (A: usually 5+ years for cases ending with a structural remedy)
- **WHAT NOT** to expect from antitrust enforcement in democratic countries? (A: expropriation)

Last year, I wrote about Alphabet:*"everything stands and falls on Search"* and whether a LLM based product like ChatGPT poses a threat depended on "*a) whether the innovator gets distribution before Google gets innovation and on b) how easily Search is adaptable.*" Considering all facts at the time, my interim conclusion was Google seemed well prepared:"***Technologically, the company is on par, distribution costs serve as barrier to entry and, if necessary, a chatbot can be tested as a new vertical overnight (between Search, images, maps, news). The right timing will be crucial though.***"

The statements above are still correct although new cultural issues have surfaced recently, adding to the already known business model issues standing in the way of a more resolute Search Generative Experience (SGE) rollout with a new "Converse" vertical. On top of that, distribution costs are under attack from the DOJ in the currently unfolding antitrust showdown *United States v. Google LLC (2020)*.

I always strive to evaluate (regulatory) risks *before* negative events could materialize. Luckily, several past investigations into Google in other countries provide insights what could happen next in the U.S.

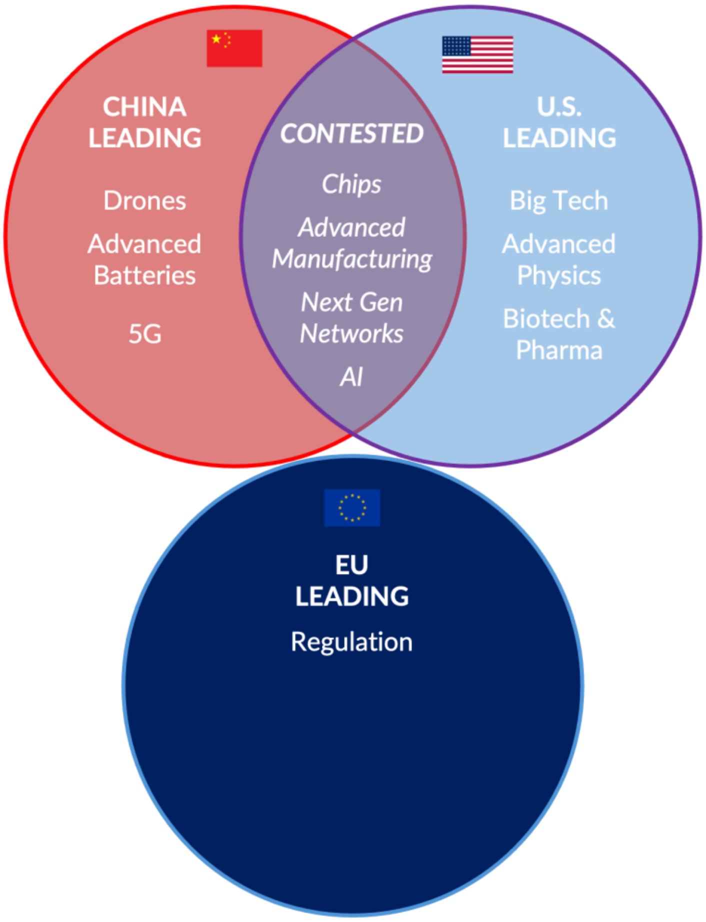
At this point, my letter switches from theory to practice. I'll dissect what precedents in the EU and the U.S. teach us how the value of the fund's investment in Alphabet could change post-trial.

[8] Big Tech dodged scrutiny until 2010 but recently the FTC sued Meta and Amazon while the DOJ sued Alphabet and Apple

No matter the jurisdiction, competition law always aims to promote a fair competitive process and increase consumer welfare through lower quality-adjusted prices. **As discussed, the U.S. narrowly focuses on the CWS while the EU follows a broader approach including *non-economic* goals**.

Europe's approach is market-structuralist where a rise in corporate concentration above a certain threshold is deemed undesirable even if accompanied by positive consumer welfare effects. William J. Kolasky, former deputy assistant attorney general in the DOJ, remarked: *"In the U.S., we like to say that the purpose of the antitrust laws is to protect competition, not competitors. This principle has become such a central part of our antitrust jurisprudence that we take it for granted. In discussions with colleagues in Europe, I have been surprised to find that this principle does not resonate over here quite the way it does for us."*

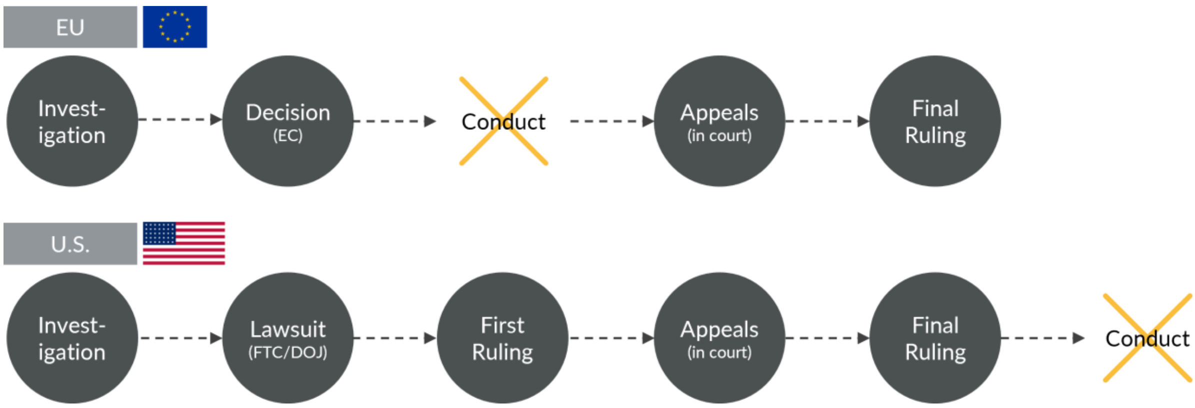
A benevolent stance on Europe's antitrust regime would characterize it as simply more active. The EU Commission (EC) leads the global debate around rigid enforcement levels and including social and political goals in its evaluations reflects key demands of the U.S. *Neo-Brandeisian* movement. A more cynical view would characterize the EC slapping billion-dollar fines on foreign tech giants as a desperate attempt to profit from all the key technologies the Old Continent has missed over the past decades.[9]



[9] This graphic is derived from assessments of the SCSP think tank and private foundation, founded by Eric Schmidt in 2021

No matter which side one is willing to underwrite, there is one peculiarity that will always impact how the EC treats challenged corporate acts differently than the U.S.: the procedural track.

The FTC and DOJ must convince a court of their case before enforcement action can be taken. Instead, the EC acts as prosecutor, judge, jury and executioner *all in one role*. A defendant found guilty of breaching EU antitrust law must stop his conduct within 90 days after the EC's decision compared to the U.S. where nothing must be altered until a final verdict is reached in court. Defendants in Europe can appeal the EC's decision in front of an independent court but must stop the allegedly illegal practices until a potential revoking. The two different procedural tracks look like this:



Microsoft Lobbied the EC to Take Action Against Google in the EU

In both the U.S. and the EU, individuals and firms can lodge formal complaints. The enforcement agencies can then decide whether to further investigate these complaints – or not. In 2009, shopping comparison website Foundem, supported by Microsoft, filed a complaint with the EC targeting Google.

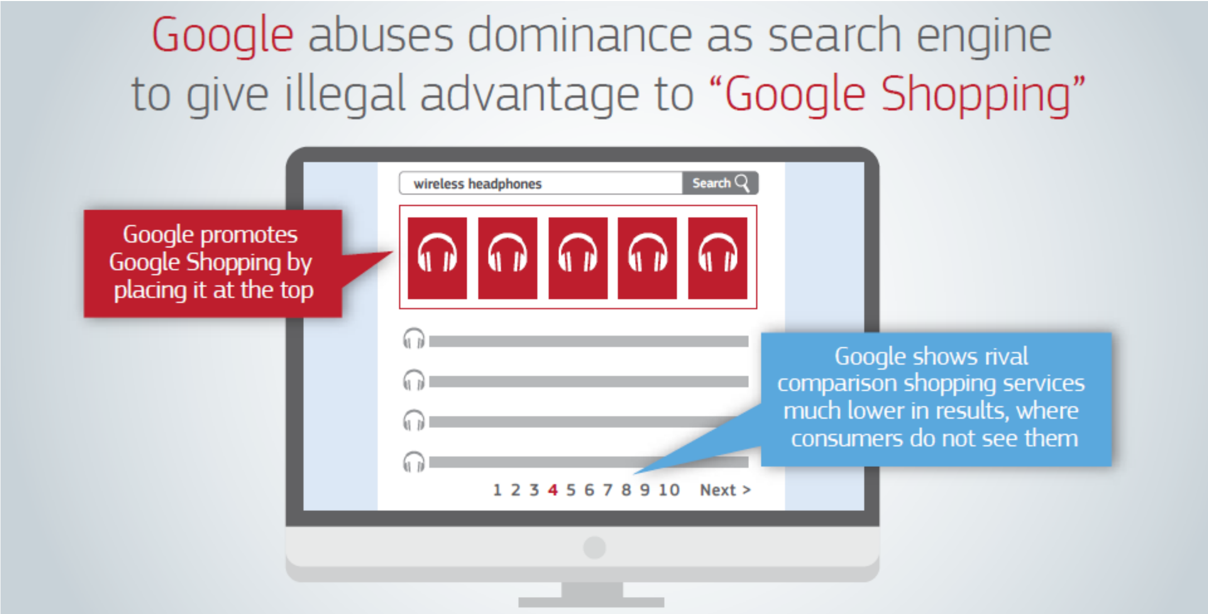
Foundem claimed Google illegally advantaged its own comparison shopping service "Google Shopping" over rivals. The complaint led to a formal investigation in 2010 and Google was fined in 2017 for abusing its monopoly position in general internet search to stifle competition in comparison shopping markets. Since then, the EC has charged the company twice more and levied fines totaling €8+ bn on Google as a result of three investigations, all decided against the company:

- #1 EU case against Google: **Google Shopping** in 2017
- #2 EU case against Google: **Android** in 2018
- #3 EU case against Google: **AdSense for Search** in 2019

Google had to stop its illegal practices each time within 90 days. The subsequent remedies provide insights into what the current DOJ case might entail for Google in the U.S. I'll break down the two most important past EC decisions from 2017 and 2018 before consolidating everything *NEW* that we learned from the soon-to-be-decided landmark trial – *United States v. Google LLC (2020)*.

#1 EU Case Against Google: Google Shopping in 2017

The EC fined Google €2.4 bn in 2017 **for its self-preferential treatment of its "Google Shopping" vertical in Search**. The EC argued displaying Google Shopping results in a rich format, at the top of the search results page whilst demoting rivals to subsequent pages breached EU antitrust law.[10]



Reviewing the exclusionary design choice, the EC emphasized how smaller competitors were harmed while the FTC reviewed the same issue in 2013 and weighed the *procompetitive justification* for Google's exclusionary conduct under the *rule of reason* standard.

Contrary to the EC, the FTC found that: "*While Google's prominent display of its own vertical search results on its search results page had the effect in some cases of pushing other results "below the fold", the evidence suggests that Google's primary goal in introducing this content was to quickly answer, and better satisfy, its users' search queries by providing directly relevant information.*"

In my opinion, the EC's decision against Google Shopping is deeply flawed. Especially in product design choices, enforcement agencies should lean heavily towards type II errors to not chill innovation.

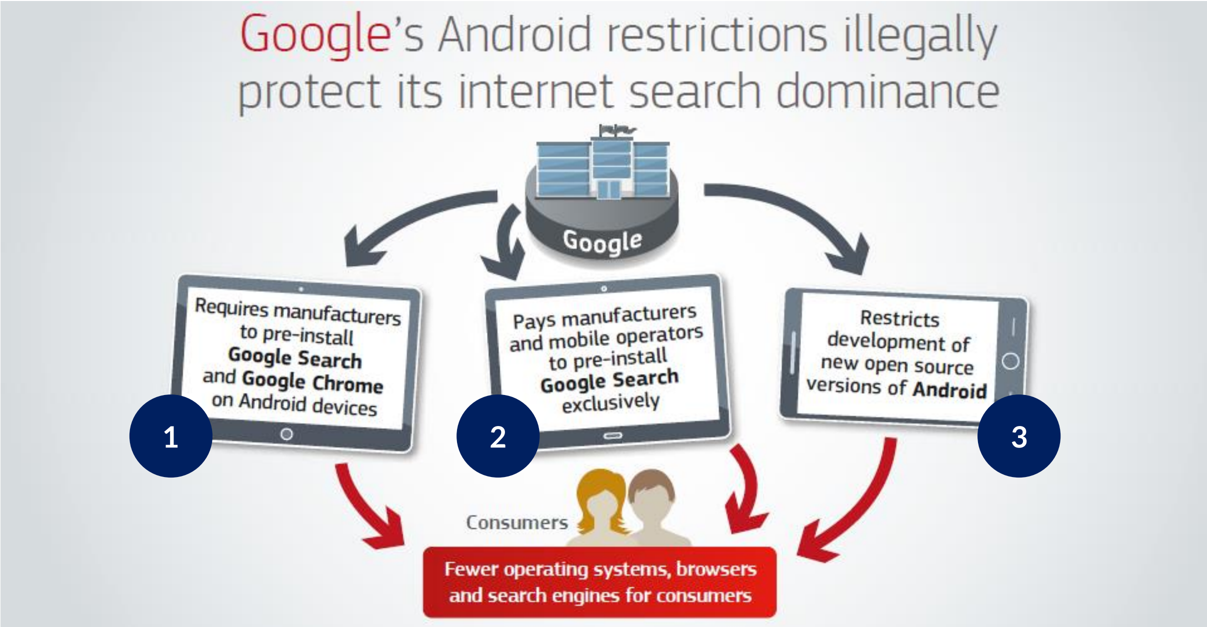
Why? It's not hard to imagine how Google will roll out Generative AI in Search via a refined SGE to more users soon. It is the most important strategic decision in years and subsequently, Google's own AI capabilities will be prominently displayed in a rich format, near the top of the search results page.

Following the EC's logic, this could be deemed an anticompetitive, illegal form of *self-preferencing* while the primary design goal is clearly procompetitive to better satisfy users' needs.

[10] Google appealed the EC's 2017 decision in the General Court. The ruling was upheld in 2021. It subsequently escalated the appeal to the European Court of Justice, the EU's highest court, with a final verdict expected in the coming months. That would mean a final verdict will be issued *14(!) years* after the initial investigation was launched in 2010

#2 EU Case Against Google: Android in 2018

The EC fined Google another €4.3 bn in 2018 **for imposing illegal, contractual restrictions on Android device manufacturers to cement its position in general internet search**. The EC argued Android imposed three types of illegal restrictions on Android OEMs which are depicted below:



1 **Illegal tying of the Play Store with Google Chrome and Search**. Before 2018, Android device manufacturers in Europe who wanted to get access to the Play Store had to sign a contract (MADA) which required them to also pre-install Google's browser and search app.

Last year, I wrote about this practice: "*Alphabet tries to ensure the distribution of Search on almost all Android devices through contracts like the AFA, MADA or RSA.*[11] *MADA requires device makers to pre-install all of the following Google apps if only one of them is supposed to come pre-installed on the device: 1) Search, 2) Chrome Browser, 3) YouTube, 4) Gmail, 5) Google Maps and 6) Google Play Store. […] If manufacturers ship Google as the pre-installed default search engine, they receive a percentage of all advertising revenue generated through their devices in return.*"

In Europe, the EC found these tying agreements to be illegal. Google argued that tying the Play Store with Chrome and Search was necessary to monetize its investment in Android which is offered to device manufacturers free of charge. The EC found these arguments unconvincing as the Play Store alone generates an estimated ~$20 bn in annual revenue and Google has other avenues to monetize Android.

A tying case in the U.S. is examined under the *rule-of-reason* standard and deemed illegal *only if* 1) the seller has sufficient market power in the tying product *and* 2) can't justify procompetitive benefits of his tying agreement. Presently, tying Play with Search is legal in the U.S. but could soon be prohibited

[11] Anti-Fragmentation Agreement, Mobile Application Distribution Agreement, Revenue Sharing Agreement

after a decision in *United States v. Google LLC (2020)*. Google always argues its tying practices qualify OEMs for a revenue sharing agreement, which may ultimately lead to lower consumer prices for devices. The EC found this unpersuasive but an U.S. court could be more sympathetic to this justification.

2 **Illegal payments to Android OEMs conditional on *exclusive* pre-installation of Google Search on *all* their devices**. These exclusivity payments in the form of revenue sharing agreements reduced the incentive to pre-install competing search engines because even if a rival was installed on only some devices, it would have to compensate the device manufacturer for a loss of the revenue share from all Google devices.

The word *exclusive* is decisive here. In Europe, it was not challenged that Google should be allowed to pay for *non-exclusive* pre-installation on Android devices. Instead, the restrictions preventing OEMs to pre-install other search services on even some of their models if they didn't want to lose out on the entire Google revenue share deal, were deemed illegal. Google tried to convince the EC that *assortment-wide exclusivity* clauses were necessary to incentivize OEMs to produce devices for the Android ecosystem. This is a weak justification and was rightfully dismissed.

The EC did not scrutinize Google's default deal with Apple but this contract forms the centerpiece of the current DOJ trial *United States v. Google LLC (2020)*, which I'll break down on the next page.

3 **Illegal anti-forking contracts** preventing Android device manufacturers who wished to pre-install Google apps from selling even a single smartphone running on an alternative Android version (so-called "Android forks").

The final point decided against Google in the EC's 2018 decision concerned anti-forking restrictions preventing OEMs, who wanted to pre-install proprietary Google apps, to build Android forks. Amazon sold a phone running on an Android fork (Fire OS) in 2014 but could only do so because it was shipped without any Google apps and Amazon also offered no other devices with pre-installed Google apps.

Google's procompetitive justification was the restrictions were necessary to prevent a fragmentation of the Android ecosystem. The EC dismissed this as Google could not provide evidence forks would be affected by technical failures and its anti-fragmentation goals could be achieved less restrictively.

#3 EU Case Against Google: AdSense for Search in 2019

Just for the sake of completeness: the EC fined Google another €1.5 bn in 2019 for prohibiting publishers from placing any search ads from competitors on their search results pages powered by "AdSense for Search". This product is irrelevant and the decision will not be discussed here.

IV. EVERYTHING YOU NEED TO KNOW ABOUT UNITED STATES V. GOOGLE

In 2020, the DOJ followed in the footsteps of the EC and filed *United States v. Google LLC* under ii) section 2 of the Sherman Act. As explained on p. 4, ii) forbids "*monopolizing, attempts to monopolize or conspire to monopolize any part of trade or commerce*". The DOJ argues Google illegally monopolized the markets for general search services, search advertising, and general search text advertising. **It's the agency's first large monopolization case since *United States v. Microsoft Corp.* 26 years ago. The evidentiary phase of the trial began in September 2023. The DOJ argued its case first. Google began its defense in October. Closing arguments will be heard until May, 3.**

To win a section 2 monopolization case, the DOJ must show that the defendant:

1) possesses monopoly power in a properly defined market AND
2) engages in exclusionary or predatory practices to maintain or enhance that power.

According to the Supreme Court, monopoly power means a company has "*power to control prices or exclude competition*," which requires "*something greater*" than market power.[12] Since it's difficult to determine a firm's exact costs and how much prices exceed competitive levels, plaintiffs try to show monopoly power through indirect evidence in form of high market shares. The Supreme Court has never held that a party with less than 75% market share had monopoly power. Lower courts generally require market shares between 70% and 80% and the Eleventh Circuit clarified that a "*market share at or less than 50% is inadequate as a matter of law to constitute monopoly power.*"

The DOJ claims Google has monopoly power with 88% market share in the U.S. market for general search services.[13] It tried to prove in court that Google engaged in exclusionary practices through several exclusionary contracts with distributors of Google Search (Apple and Android device manufacturers). These contracts, the DOJ argues, cover ~60% of all U.S. search queries (thereof 36PP from Apple) and foreclose rivals from necessary scale to compete effectively.

In layman's terms, the DOJ and Google fight over what makes a leading search engine: an illegally secured scale advantage through exclusionary distribution contracts OR a genuinely better product?

The lawsuit gravitates around three charges with A) being crucial and B), C) being afterthoughts:

A) Google's agreements with Apple and Android device manufacturers lock up mobile distribution of Search
B) Google's agreements lock up browser distribution (e.g. paying for defaults in Firefox, Opera)
C) Google is positioning itself to the next generation of Search distribution channels (e.g. wearables, CTVs, automobiles)

[12] Market power is defined as the ability to profitably charge supra-competitive prices
[13] The DOJ claims Google has over 70% market share in search advertising and general search text advertising

The Centerpiece of the Trial: The Apple Default Contract

Regarding A), the original DOJ complaint states on p. 37:

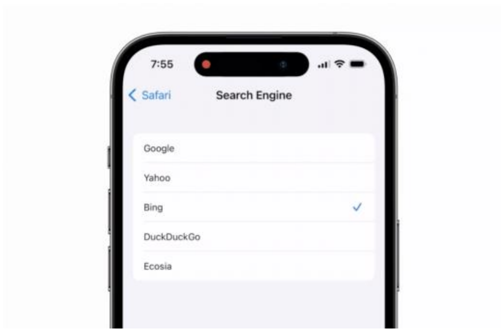
"Apple has not developed and does not offer its own general search engine. Under the current agreement between Apple and Google, which has a multi-year term, Apple must make Google's search engine the default for Safari, and use Google for Siri and Spotlight in response to general search queries. In exchange for this privileged access to Apple's massive consumer base, Google pays Apple billions of dollars in advertising revenue each year. […] Although it is possible to change the search default on Safari from Google to a competing general search engine, few people do, making Google the de facto exclusive general search engine. ***That is why Google pays Apple billions on a yearly basis for default status. Indeed, Google's documents recognize that "Safari default is a significant revenue channel" and that losing the deal would fundamentally harm Google's bottom line. Thus, Google views the prospect of losing default status on Apple devices as a "Code Red" scenario****. […]*

By paying Apple a portion of the monopoly rents extracted from advertisers, Google has aligned Apple's financial incentives with its own and set the price of bidding for distribution extraordinarily high – in the billions. And, even if a rival was willing to make no money from a distribution relationship or could afford to lose money indefinitely, the rival would likely still fall short because the existing distribution agreements have for more than a decade denied rivals the benefits of scale, thus limiting (1) the quality of their general search and search advertising products, as well as (2) the audience to attract advertisers. In other words, because of the longtime deprivation of scale, no other search engine can offer Apple (or any other partner) the mix of quality, brand recognition, and economics that market-dominant Google can."

While it's correct that Google pays for default status in Safari, its contract with Apple is not *exclusive*. Bing and Yahoo also pay to be featured in Safari and Apple users can choose between five different search providers, namely Google, Yahoo, Bing, DuckDuckGo and Ecosia. It takes *two* clicks to change the search engine on Safari desktop and *four* taps on mobile. Google's former CEO Eric Schmidt famously coined the phrase Google's competition "*is just one click away*", which became a standard line of defense for the firm. Make it two clicks (four on mobile) and it adds the charm that it's true!

It takes two clicks to change the search engine on Safari desktop

It takes four taps to change the search engine on Safari mobile



The DOJ tried to convince the judge that the Apple default contract leads to *substantial foreclosure* in the competition for distribution.[14] **This allegation rests on an intuitive fallacy: ex post, the winner of an exclusive or default contract always appears to lack competition. Ex ante, it's often the opposite and *"competition for the contract"* amongst bidders can be fierce. Contemporary U.S. antitrust analysis has long recognized that "*competition for the contract"* can benefit consumers**. Court precedents established that *"in many circumstances exclusive-dealing arrangements may be highly efficient – to assure supply, price stability, outlets, investment, best efforts or the like – and pose no competitive threat at all".* Former rulings also held that "*competition for the contract is a vital form of rivalry, and often the most powerful one, which the antitrust laws encourage rather than suppress*."

<u>A prerequisite for the legality of such contracts is that the monopolist mustn't coerce its contract partner.</u> The partner must freely select whoever he thinks offered the best deal. It's questionable if Apple – for a long time the most valuable company in the world – could be muscled by Google (or anyone else) into an unfair contract.[15] The fact how well Apple monetizes its real estate tells more about Apple's power than Google's and points to healthy "competition for the contract".

Everything NEW We Learned During the Trial

A big chunk of the trial was hidden from the public and happened behind closed doors. However, towards the end, more highly sensitive information got out that informs us what should happen next.

It was revealed that when Bing was competing to be the default search engine on Apple devices, it was willing to "*take a multibillion-dollar short-term loss*" to outbid Google. However, Apple declined the higher offer and did so freely without coercion. Apple stayed with Google because it considered Google "*the best*" search engine for its users coupled with the most attractive long-term economics for itself.

During testimony, Microsoft's head of advertising, Mikhail Parakhin, said he felt Bing was used as a bargaining chip to pry more money out of Google – something that again alludes more to Apple's power than Google's. Parakhin added:"*It is no secret that Apple is making more money on Bing existing than Bing does*" but regarding if they were treated unfairly by Apple he had to admit that "*Bing's mobile search is not as good as Google's*". He further said it would be "*uneconomical for Microsoft to invest more*" unless Bing "*gets a more significant, or firmer guarantee of distribution*". The latter statement made observers skeptical how Bing could claim any unfair treatment in the market for search distribution when they had not invested properly into product quality. Parakhin blamed Bing being behind on Google's foreclosure of necessary scale, but Neeva founder Sridhar Ramaswamy contradicted and said one could compete successfully with as little as "*2.5% of general search users*", a threshold Bing handily

[14] In a *substantial foreclosure* case, it's generally required to prove a monopolist has foreclosed *at least 40%* of the relevant market with long-running distribution contracts and that the challenged agreements threaten to reduce output or raise prices
[15] To be fair to the plaintiff: during trial, the DOJ presented two instances that a judge could categorize as mild coercion: 1) when Apple considered a choice screen in Safari, Google made clear that their revenue share deal rested on something different and signaled that "no default" would mean "no revenue share." While this clarification should be covered by the law, a second communication between Google and Apple seems more disadvantageous: when 2) Apple entertained developing its own search engine, Google stated that such development could jeopardize their revenue sharing agreement

exceeds in the U.S. Moreover, Google's VP of search, Pandu Nayak, testified that "*innovations in language understanding have become increasingly important to gains in search quality, while the sheer volume of search queries has become less important*."

Nayak's statements alluded to the main dispute between the DOJ and Google: whether Google Search is leading because of an illegally secured scale advantage OR because it's a genuinely better product.

The evidentiary phase brought up many examples where consumers preferred Google because they deemed it a genuinely better product than Bing or Yahoo. Mozilla's CEO, Mitchell Baker, testified that when they changed the default on Firefox to Yahoo, "*we found our users trying all sorts of different ways to get back to Google, and we experienced lots of people leaving Firefox*". He added:"*users made it clear that they look for and want and expect Google***.**" Google's lead litigator pointed towards a user backlash when Samsung sold a phone in 2010 with Bing as the sole and unchangeable, pre-installed search provider. Bing is also the default in the Edge browser, which comes preloaded on Windows devices. Nonetheless, Microsoft VP Jonathan Tinter had to admit, 75% of Edge users switch their default search engine from Bing to Google and CEO Satya Nadella confirmed Bing's share of search queries on Windows devices is "*in the teens*" with the most queried word on Bing being "*Google*".

These testimonies undermine the DOJ's "power of defaults" argument that users won't change defaults even if they're unhappy. While it's correct that users generally don't change their default search engine (if it's Google), they are sometimes eager to do so (if it's not Google). Tech lobbyist Matt Schruers criticized that "*the U.S. government appears to be targeting a product that people are generally satisfied with and attempting to drive them towards using the product of an even larger corporation that is less favored*". Google's defense added the DOJ's claims were "*all in the hopes that forcing people to use inferior products in the short run will somehow be good for competition in the long run*".

This leads to an obvious question:"*If consumers freely switch to, but not away from, Google, why does the allegedly unassailable monopolist need to pay Apple billions to maintain default status*?"

The Economics Behind the Apple Default Contract

A formerly only estimated number became public during trial: the exact amount Google pays Apple.

Google paid Apple $18 bn in 2021 for default status in form of a revenue sharing agreement.[16] This amounts to 17% of Apple's 2021 operating profit. A witness also let slip that this equates to a 36% share, i.e. Google Search revenue on all Apple devices amounted to $50 bn in 2021 or 34% of all Google Search & other ad revenues in 2021.

Google's propensity to pay should be derived from the expected value it accrues from the contract.

[16] Last year – before the trial – I wrote for the fiscal year 2021: *"I believe Alphabet paid $24 bn to its search distribution partners (of which ~$15 bn to Apple), or 16% of all Google Search & other ad revenues".* Actuals were $26 and $18 bn

In this regard, a 36% revenue share means:

- If Google expects to **lose more than 36%** of its Apple users <u>once it stopped paying for default</u>, it should *continue* to pay.
- If Google expects to **retain more than 64%** of its Apple users <u>who'd need to actively switch back from another default search engine once payments cease</u>, it could *stop* to pay.[17]

Further assuming Google was prohibited from entering into any distribution contract with Apple, then:

- losing 50% of its Apple users would lead to a $7 bn net revenue hit (5%/9% of F21 gross profit/operating income).[18]
- losing 75% of its Apple users would lead to a $20 bn net revenue hit (13%/25% of F21 gross profit/operating income).

For Apple, the deal also makes economic sense. Its share (36%) is higher than Google Services' operating margin (35% in F23) and if Apple wants to distribute the best search experience, it should at times be willing to take *less* money from Google in the short run than from a more aggressive lower quality bidder (which is exactly what happened with Bing). The more one thinks about the Google-Apple default contract, the more it looks like an ordinary business decision negotiated at arm's lengths.

Moreover, the DOJ's allegation leads to a paradox: if default distribution contracts are indispensable to compete effectively, they're not only vital for rivals but for Google itself, making it perfectly justifiable to take part in the bidding process. How then, can a legitimate act to stay the quality leader be illegal? And if Apple is indeed the kingmaker in search, then allowing Bing to pay for distribution but not Google means the government would pick winners and losers, antithetical to the gist of antitrust.

Thus, after the closing arguments, the court will weigh the procompetitive justifications Google presented for its contract with Apple. From the plaintiff's view, Google presented two*: "First, that existing competition between search rivals for search defaults ("competition for the contract") justifies any harms to consumers within the relevant markets; second, that Google's conduct benefits consumers through lower smartphone prices or more innovative browsers."* It's sometimes debated whether harms in one market (search) can be relieved by benefits in another (devices),[19] but generally speaking, a U.S. court could be more receptive to Google's second argument than the EC. Once Google was excluded from "competition for the contract", the next best bid (from Bing) would drop materially. For illustrative purposes, if Apple needed to regain a default deal revenue shortfall of $10 bn solely through annual iPhone sales in the range of 200m devices, iPhone prices for consumers would need to go up by ~$50.

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[17] This is an overly simplified, short-term financial perspective

[18] 0.5*$50 bn = $25 bn compared to 1.0*$50 bn - $18 bn = $32 bn → $7 bn net revenue loss for Google

[19] Some courts have considered such cross-market tradeoffs in certain instances, including tying cases, while others have not

Lastly, I'm not convinced the DOJ has laid out any clear *consumer harm* by Google's practices in court. In the plaintiff's post-trial brief, the DOJ proclaims "*consumers have little choice*" and "*lose out on better products*" but provided no evidence for this during the trial.

The DOJ originally called for "*structural relief as needed to cure any anticompetitive harm*", but towards the end of the trial it also entertained a **choice screen** as a remedy. This measure would forbid Google from paying for default status but allow it to pay for inclusion in the choice screen. Smaller rivals like Bing could still bid for default and Apple then had to choose which option it prefers.[20]

Judge Amit Mehta will rule in the coming months. From a purely fact based perspective building on historic precedents and all evidence presented in court, I think Google should win. However, given this is a high-profile case and the public sentiment is "Big Tech = bad", it appears more likely that Google loses in first instance but could ultimately prevail on appeal.

One thing seems clear though: whichever side loses will appeal as the stakes for both sides are too high. The case then goes up to the DC Circuit and could ultimately be escalated up to the Supreme Court.

Besides the Apple contract, exclusionary contracts with Android device manufacturers form the second part of the main allegation in *United States v. Google LLC (2020)*. **Here, the DOJ merely recycles all charges from the EC's 2018 Android decision.** I'll reconcile the connection between both cases below.

Google's Contracts with Android Device Manufacturers

Regarding the contracts with Android device manufacturers, the DOJ complaint states on p. 39:

"Google controls the Android mobile distribution channel with its distributor agreements and owned-and-operated distribution properties. Even though Android is open source, Google has used Android to protect Google's lucrative general search and search advertising monopolies. Google sets the rules through anti-forking agreements, preinstallation agreements, and revenue sharing agreements.

Notably, each of these agreements builds on the others to preserve control. Thus, Google will not pay a revenue share or financial incentive payment on a mobile device unless it is covered by (1) an anti-forking agreement, (2) a preinstallation agreement ensuring that Google's search access points are preinstalled and given prominent placement, and (3) a revenue sharing or mobile incentive agreement that entitles Google to preset default status and, in most cases, prohibits preinstallation of search access points with rival general search providers.[…]

[20] Theoretically but unlikely, a court could also ban *any* default deals on Apple devices which shall be net positive for Google

Particularly for newer entrants, the revenue sharing agreements present a substantial barrier to entry. These entrants cannot pay the billions of dollars that Google does for the most effective forms of distribution – premium placement and default status. Instead, they are relegated to inferior forms of distribution that do not allow them to build scale, gain brand recognition, and generate momentum to challenge Google."

In an exact analogy to the EC, the DOJ challenges three exclusionary Android contracts: (1) anti-forking agreements, (2) pre-installation agreements (MADA) including tying Play with Search and (3) revenue sharing agreements for *exclusive* distribution of Google Search as the sole default search provider.[21] **Since all three charges are the same as in the EU, the remedies could also be the same**.

What Remedies Were Imposed in Europe Over the Past Five Years After the EC 2018 Android Decision?

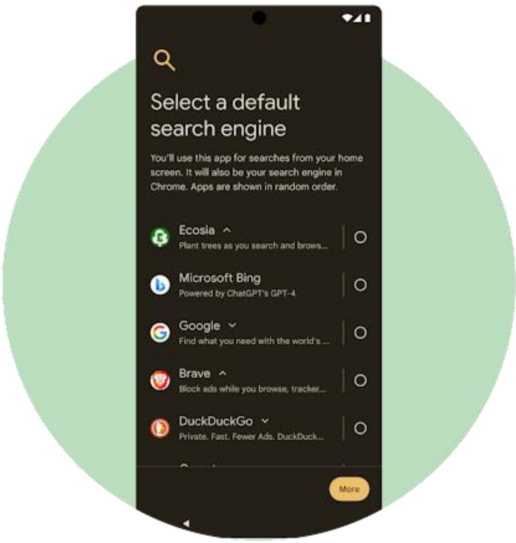
EC remedy		implications
(1) Google had to allow Android forks.	→	Android OEMs wishing to distribute Google apps may now also build forked smartphones. Samsung can distribute a MADA-conform Galaxy phone in the EU while simultaneously selling forked Android devices without any pre-installed Google apps if it wants to.
(2) Google had to stop tying Play with Search and Chrome.	→	OEMs who want access to the Play Store no longer have to sign MADA and pre-install a host of other Google apps. In theory, Samsung can sell a phone in the EU with Play pre-installed *and* Bing as the exclusive pre-installed search engine. Please note: OEMs are still allowed to follow the old MADA rules, it's just no longer mandatory. Once they change Google's preferred setup and replace apps, Google charges a license fee (for Play) of up to $40 per device to make up for the revenue it previously earned as a result of the tying arrangements.
(3) Google had to stop paying OEMs a revenue share for *exclusive* distribution of Google Search.	→	Google as the monopolist may no longer offer OEMs a revenue share for *exclusive* pre-installation of Search. Bing or Yahoo, however, may still bid for *exclusive* pre-installation and defaults. Google may offer a revenue sharing agreement for *non-exclusive* pre-installation without default status, in which case device manufacturers must show a choice screen during the initial setup of a new Android device.

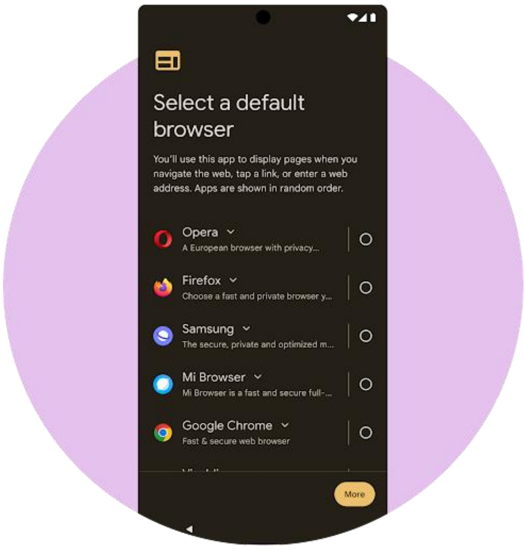
Remedy (1) means it's now allowed for every Android device manufacturer to build Android forks.

(2) allows OEMs to compile smartphone presets more freely in the EU. Google tries to make up for any potential revenue shortfall through new licensing fees for its native apps. While this is a legitimate business decision, observers have raised questions about whether *"the EC's decision will ultimately benefit consumers, who may face higher device prices because of the new licensing fees"*.

[21] The EC condemned Google's RSAs in Europe which required *exclusive* pre-installation of Google Search on *all* Android devices sold by the counterparty. In the U.S., Google offers an alternative RSA with *model-by-model* choice

(3) introduced the most important change to Google's conduct: a choice screen *must* be shown if Android OEMs want to pre-install Google Search as their preferred search engine. You can see the **Search choice screen** below on the left. Since March 2024, Google has also been obligated under the Digital Markets Act (DMA) to show a new **Browser choice screen,** that you can see below on the right.

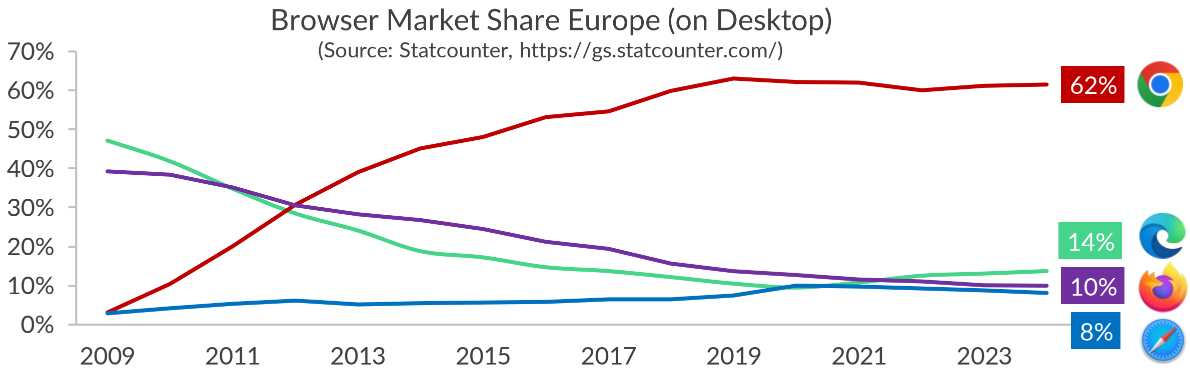




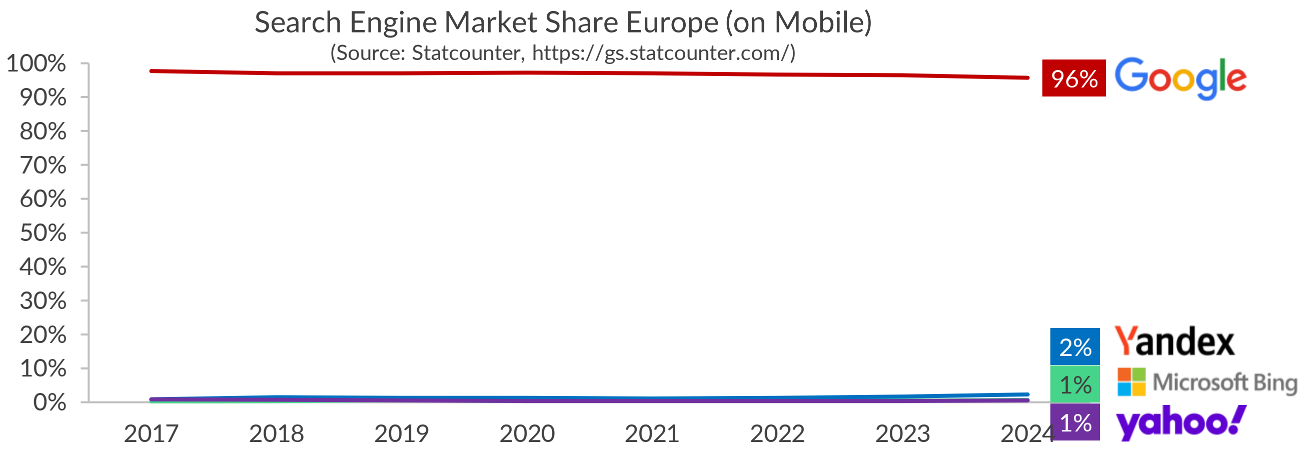
For Europeans, this choice screen remedy rings a bell: the EC closed an investigation into the tying of Windows with Internet Explorer contingent on Microsoft's commitment to show all Windows PC users a browser choice screen from 2010 to 2014.

Are Choice Screens Effective?

Given the popularity of choice screens in Europe, one would assume there's robust evidence for their effectiveness. If the goal is that consumers can freely choose their favorite service, it gets the job done. **However, if the goal is to alter market shares – which I assume regulators would prefer to see – choice screens do not dent the popularity of the leading product at all**. The Windows browser choice screen did nothing to alter the trend that the worse product (Internet Explorer) ceded market share to the better product (Chrome). Note that this shift was already going on before the choice screen implementation in 2010 and that Chrome won on a platform where it had zero distribution advantages.



The Android choice screen was unveiled in 2019 and at first, Google stuck to its playbook from the EC Google Shopping remedy where it turned competitors into paying customers by auctioning off placement in the choice screen to Bing, Yahoo, Ecosia etc. It later modified the screen due to pressure from the EC and at present, the five most popular search services from each country are shown at the top, in random order and free of charge. Before the choice screen remedy, Google had 97% market share on mobile devices in Europe. **In the new non-default world, 96% of users actively choose Google on their choice screen and market share has dropped by less than 1PP** (according to [Statcounter]).



Could a Choice Screen Come to Apple Devices in the U.S.?

During the DOJ trial, DuckDuckGo CEO Gabriel Weinberg entertained an U.S. choice screen on Apple devices as a remedy. However, under cross-examination, he admitted DuckDuckGo's market share was *lower* in Europe compared to the U.S., even in countries where a choice screen existed for years.

An U.S. version of an Apple choice screen could come in two flavors:

1) The court could ban any default deals on Apple devices and impose a choice screen for which no company may pay anything (Spoiler alert: this should be positive for Google)[22]

2) Copying the EU remedy, the court could allow Bing or Yahoo to still bid for default status while Google may only bid for non-exclusive distribution. If Apple wanted to maintain its revenue share contract with Google, this would trigger a choice screen during the setup of a new device.

The first option is unlikely. It would benefit Google to the detriment of Apple's bottom line. A Google critic lawyer, Megan Gray, remarked:"*The public will rightly mock antitrust efforts if all they achieve is a silly choice screen and a Google that is $26 billion richer from canceled default deals.*"

[22] This version of a choice screen would likely just solidify the current search market structure while Google no longer has to pay Apple but long-term this would increase the likelihood that Apple entertains the possibility to build its own search engine

The second option is more likely and Google paying Apple an unchanged amount[23] **for *non-exclusive* distribution through a choice screen should not pose a major threat given that 96% of EU Android users actively choose Google on their choice screen**. However, it could lower margins a bit as it was indicated during trial that "*Google's revenue share payments to Android partners in Europe increased after the introduction of the choice screen as Google took steps to stave off the threat that newly emboldened rivals might otherwise "secure full search exclusivity" on Android phones."*

The last point has the added charm that it makes it much easier for the DOJ to argue how this version of a choice screen increases consumer welfare as distributors would take in more money from Google that could be passed through to consumers in form of lower device prices.

Finally, for completeness, I'd like to note that the DOJ filed another lawsuit against Google last year, albeit of lesser significance, that will go on trial September 9, 2024.[24]

*   *   *

The bottom line is the following: ***risk is what's left over after you think you've thought of everything*** goes a well-known investing proverb. Despite the imperfection, I strive to have a well-founded idea of risks before negative events could hit one of our holdings. Regarding the regulatory risk stemming from the upcoming ruling in *United States v. Google*, one possible remedy includes a choice screen on Apple and Android devices, which Google would reject outwardly, yet inwardly deem alright.

A worst-case scenario could be that Google was prohibited from entering into any distribution contract with Apple while a competitor may secure default status. In this unlikely central-planning scenario, Google would save $18 bn but the question is how many users would actively switch back from the new default and how much ad revenue would be lost. As described on p. 25, a loss of 75% of Google's prior Apple users could cause a 25% decline in Alphabet's profits. That scenario seems bad, but manageable. More significant changes to Google's conduct are more likely to come from Congress passing new laws than the DOJ enforcing old ones, contingent on a societal consensus whether action is needed *at all*.

I'll present the fund in several German cities again this fall. I also plan to revisit California in September. If you know someone for whom the investment approach could be a good fit, please contact me here.

April 28, 2024

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[23] If Google may no longer bid for *default*, its propensity to pay for *non-exclusive* distribution through a choice screen should still not fall given it'll be anchored on the highest bid from a competitor for *default* distribution. In the EU, it went *up* slightly

[24] Google is accused of illegally monopolizing the ad tech stack through its 2008 acquisition of DoubleClick, which brought the leading **publisher ad server** "Google Ad Manager" plus the **ad exchange** AdX into the company, and engaging in exclusionary practices afterwards. Discussing it here would go beyond the scope of this letter. However, this case should not be as significant as the current one: 15 years ago, Google Network revenues made up 30%+ of total advertising revenues vs. **only 15% today**. In a world with less tracking, the low-margin display ad business on third-party properties (often coming with a 68%/32% revenue share in favor of the publisher) is no longer as big a priority for Alphabet as it was in the past

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