

Generative AI: Drawing the U.S. Battle Lines

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FOR MANY, INCLUDING SEASONED antitrust practitioners, the understanding of generative artificial intelligence (“GAI”) is no deeper than the words themselves—i.e., “having the power or function of [...] originating, producing, or reproducing” content, “artificially.”¹ Yet we are told that GAI will soon or eventually revolutionize numerous industries, including healthcare, finance, education, travel, retail and, yes, even the law. Setting aside the real and immediate issues of security and consumer protection, the possibilities from innovation and efficiency perspectives appear limitless.

But antitrust policy-makers and enforcers around the globe are expressing grave concerns.² Most, including the United States Department of Justice (“DOJ”) and Federal Trade Commission (“FTC”), believe that enforcers missed the opportunity to prevent the rise of dominant Big Tech firms,³ and now they are sounding the alarm bells that history is about to repeat itself in the GAI sector, including through the actions of the same GAMMAN players: Google, Amazon, Microsoft, Meta and Apple, and, more recently, Nvidia—the current dominant provider of accelerator chips. Antitrust agencies and competition regulators are particularly concerned that the GAMMAN firms have built-in advantages for most of the key inputs needed to construct the foundational models (“FMs”) that are required to create GAI content.⁴ These critical inputs include access to massive amounts of data, computing power (cloud-based, primarily), and highly specialized labor talent.⁵ They are also concerned that the GAMMAN firms can control downstream development and deployment of GAI—through investments, collaborations, self-preferencing, bundling, or tying within their own ecosystems.⁶ These enforcers and global regulators—together with consumer advocacy groups⁷—are

particularly suspicious that the plethora of GAI-related collaborations and investment agreements involving GAMMAN firms, even if potentially fostering innovation and expanding output, will create a “feedback loop” where Big Tech’s allegedly entrenched downstream dominance will reinforce upstream control of inputs. The feared outcome is that GAMMAN firms will become further entrenched, but this time as gatekeepers of GAI products, which could block or deter innovation and harm consumers. The U.K.’s Competition and Markets Authority (“CMA”) is currently ahead of other jurisdictions in studying these issues.⁸ In the U.S., the FTC has launched several 6(b) investigations into the largest of these GAI investments and partnerships.⁹ The DOJ and the FTC have also reached an agreement on their division of AI-related antitrust investigations, with DOJ focusing on Nvidia and the FTC on Microsoft and OpenAI.¹⁰

By contrast, others see GAI as a nascent and dynamic industry where investments, collaborations, and acquisitions are important accelerants of innovation, even if they may result in some degree of consolidation or “creative destruction.”¹¹ Indeed, even the CMA acknowledges that some form of collaboration may be essential for tech innovation, including for smaller innovators looking for investment offramps.¹² From this perspective, antitrust enforcers and regulators would be well advised to keep their powder dry and let innovation run its course. Indeed, according to the CMA’s most recent GAI industry technical update in April 2024,¹³ in just the past several months there were significant structural developments across the GAI supply stack (infrastructure inputs, rapid expansion of FMs, and consumer-facing deployment). It seems fair to observe that, at this stage, it is not yet clear whether any GAI-related segments will soon experience the type of consolidation, scale benefits, or network effects that are typically associated with competition “for the market” and (rightly or wrongly) any resulting market dominance.

The objective here is not to resolve this lofty policy debate, but rather to focus on how U.S. antitrust enforcement related to GAI—as a practical matter—is likely to take shape in the near future. In this sense, we are undertaking an issue-identifying exercise with two primary goals: *first*, we explain the current (and evolving) supply structure of GAI, including examples of the ongoing investments, collaborations, and acquisitions within the GAI supply stack. *Second*, we describe and analyze how antitrust issues are likely to be framed in the United States where, unlike in other jurisdictions, enforcers must grapple with the case law limitations of the Sherman Act (Sections 1 and 2) and the Clayton Act (Section 7). From both perspectives, a year from now the competitive landscape may all change—in some areas self-resolving through competition while, in others, worsening through consolidation; but, in either event, an overview roadmap for the wild ride ahead may be useful. We conclude that, compared to their U.K. and EU counterparts,

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the U.S. Agencies may find it difficult to proactively structure and “shape” competition in ways they consider welfare-enhancing for consumers, as the relevant U.S. statutes and case law prohibit only *reductions* in competition. In other words, under the current U.S. case law, the Agencies (and private plaintiffs) cannot seek redress solely on the basis that they wish to make an industry *more* competitive, but rather must articulate specific misconduct and harm in distinct antitrust markets.

The Evolving GAI Supply Stack

Describing the current GAI supply structure and competitive dynamics in a few pages is no easy task. In addition, the nature of supply (including through collaborations and new entrants) is evolving so quickly that marketplace facts—and related concerns—continue to change in ways that are likely to impact ongoing antitrust analyses.

Nevertheless, the current structure of GAI is generally viewed as a four-level value stack, consisting of (i) GAI infrastructure, (ii) GAI development, (iii) GAI release, and (iv) GAI deployment.¹⁴ Understanding these segments, their participants, and the evolving dynamics within and across these segments is a prerequisite for assessing future U.S. antitrust policy and enforcement concerning GAI.

GAI Infrastructure: Data, Hardware, Computing Resources, and Expertise. This first level of the marketplace can be viewed as comprising the key inputs for creating FMs, which are then developed and “fine-tuned” for downstream deployment and user-facing applications. In order to capture the potential areas of antitrust concern, it is useful to focus on inputs that are likely to be viewed as distinct markets.

Data. The development of FMs is critically dependent on massive amounts of data, which are “pre-trained” to generate content.¹⁵ Data can be public, private, or, more recently, “synthetic.”¹⁶ Big Tech firms are viewed as having unique access to large swaths of proprietary data, while developers of large language models (“LLMs”) and smaller or specialized language models (“LMs”) often have access to other public and private sources.¹⁷ Many of the GAI partnerships involve access to data, including, for example, OpenAI’s collaboration with Axel Springer and Google’s partnership with Reddit.¹⁸ And several FMs—e.g., Microsoft Phi-2, Anthropic Claude 3, and Google Gemma—are increasingly using synthetic data for pre-training and fine-tuning functions.¹⁹ Whether and to what extent access to first-party, proprietary data brings significant competitive advantages is an important issue for future competitive analysis.

Hardware. Nvidia’s graphic processing units give it a significant first-mover advantage as the leading provider of AI accelerator chips (as those fortunate enough to have invested in it are well aware). Further, Nvidia provides the “de facto industry standard” software (Compute Unified Architecture, or CUDA) and many layers of key software beyond CUDA for customers to fine tune the performance

of Nvidia’s processors.²⁰ Industry participants have raised concerns about Nvidia’s dominance and the “lock-in” effect that CUDA creates.²¹ More recently, however, established chips suppliers (Intel and AMD), as well as cloud producers (Amazon, Microsoft, and Google) have announced plans for producing AI chips.²² It remains to be seen whether Nvidia’s existing and potential competitors can provide viable alternatives to Nvidia’s state-of-the-art chips and its one-stop shop for GAI development.

Computing Resources. Most FM developers access the massive power needed for computing—both pre-training and fine-tuning—via the cloud, including through established players such as Amazon, Microsoft, and Google (“hyperscalers”).²³ Apart from smaller or targeted fine-tuning tasks, FMs currently must use the cloud and these providers to develop their models.²⁴ While the hyperscalers account for about two-thirds of cloud spending, smaller players such as Alibaba, Oracle, and Salesforce have been able to hold their market share against “the big three.”²⁵ Some long-established traditional IT firms with cloud computing services have also grown their business by providing software and services to help customers interact with the cloud.²⁶ However, it is possible that the significant upfront investments in servers and their housing facilities, coupled with the economies of scale achieved so far, may protect the hyperscalers from meaningful competition by rivals.

Talent. There are enormous and lucrative deals to attract AI researchers and programmers, including compensation packages of up to \$10 million.²⁷ While Big Tech firms may have some built-in advantage with their current resources, they also compete for talent among themselves, as reflected by Microsoft’s recent hiring of Inflection AI’s CEO (co-founder of Google’s DeepMind AI lab) and a number of Inflection’s key employees.²⁸ With specialized knowledge and expertise being one of the key inputs to GAI, some have raised the concern of monopsony power in the labor market.

GAI Development: Foundational and Fine-Tuning Models. With the key inputs above, the development of GAI typically involves the pre-training of large foundational models and additional training of those models for specialized use (“fine-tuning”). This area is where many of the high-profile investments and partnerships are taking place, including, among many others, Microsoft’s multi-billion dollar investment in Open AI; Google’s up to \$2 billion investment in Anthropic; and Amazon’s partnership with Hugging Face (an open-source hub).²⁹ While most of us are aware of ChatGPT and a few other commercialized FMs (e.g., Google’s Gemini and Anthropic’s Claude 3), the number and capabilities of FMs are growing rapidly. The CMA reports that there are now over 300 publicly available FMs (there may be others that are private), with over 120 released since September 2023.³⁰ Many of these models now include multimodal functions for text, audio, images, and video.³¹ Significantly, there is also a growing trend to develop smaller or highly specialized FMs for certain tasks, including most

recently for consumer devices.³² One can anticipate that even with these investments and partnerships under the antitrust spotlight, the plethora of FMs will continue to flood the GAI marketplace.

GAI Release: Closed and Open. In its April 2024 report, the CMA separated “AI release” from “AI deployment” to highlight the two primary paths FM models are released to downstream developers.³³ Closed-source models are proprietary models that either remain in-house or are controlled through licensing, APIs, plug-in tools and data, or other means.³⁴ By contrast, open-source models are freely shared, and off-the-shelf components can be provided at no cost.³⁵ Open-source releases presumably benefit smaller and later market entrants and, to some extent, may reduce the early movers’ competitive advantage.

GAI Deployment and Downstream Fine Tuning. This consumer-facing segment, which includes the productization of FMs and downstream fine-tuning capabilities for particular uses, is perhaps the most nascent and likely explosive segment of the GAI supply stack. It, of course, is also where the global antitrust agencies are particularly concerned that Big Tech may attempt to control the GAI supply landscape through tactics (discussed later below) that could pose significant U.S. antitrust issues.³⁶

Companies have begun in earnest the deployment of GAI in its product and service offerings for consumers. Microsoft now offers *Microsoft Copilot*, a “conversational chat interface” that complements its existing product line by helping consumers “search for specific information, generate text,” and “create images.”³⁷ On June 10, 2024, Apple released its preview of Apple Intelligence that “combines the power of generative models with personal context” within Apple’s line of products.³⁸ Apple has also partnered with OpenAI to integrate ChatGPT across Apple platforms.³⁹ (Apple later confirmed that these AI tools will not be offered in the EU due to “regulatory uncertainties.”)⁴⁰ The deployment of GAI for consumers has even begun to expand beyond the technology space, with industries such as finance, health-care, and retail, to name a few, adopting GAI technologies for their interactions with consumers.⁴¹

The Alarm Bells Are Ringing

The U.K. and EU: Power and Flexibility. Looking at the U.K. philosophy and enforcement policy, we see an aggressive objective—and underlying statutory mandate—for affirmatively “promoting” competition around several interrelated principles: access, diversity (of business models), choice, flexibility (multi-homing), fair dealing, and transparency.⁴² These policy goals are to be facilitated by anticipated new powers set forth in the Digital Markets, Competition, and Consumers Act,⁴³ which will supplement and enhance the work already being done by the CMA and its Digital Markets Unit. Under these principles, the CMA can target firms that, in its view, have control of or advantages concerning critical GAI inputs, FM development, and

deployment into existing Big Tech ecosystems. Specifically, the CMA plans to take head on any incumbent “feedback loops” or network effects that may arise from these advantaged positions and related investments and partnerships.⁴⁴

Likewise, the Council of the European Union gave final approval to the AI Act on May 21, 2024.⁴⁵ The AI Act focuses primarily on security and data issues, while the Digital Markets Act (“DMA”)—coupled with the Directorate-General for Competition’s (“DG Comp”) enforcement powers under Articles 101, 102, and the Merger Regulations—provide vehicles to pursue policies and enforcement objectives similar to those of the U.K.⁴⁶ Indeed, the EU has focused for some time on attempting to ensure that tech-related markets are opened up, offer a level playing field, and do not allow for the leveraging of market power in ways that distort competition in related markets.⁴⁷ And, of course, there is a particular focus—both in the DMA and enforcement—on “gatekeeper” firms that may affect competition throughout an incumbent’s ecosystem.⁴⁸ While Executive V.P. Vestager has asserted that the AI Act would create “legal certainty” and not stifle innovation, some Member States (e.g., France) are concerned that aggressive legislation will deter innovation, which in turn will undermine EU Members’ efforts to create GAI products and national champions.⁴⁹

Reactions of U.S. Agencies and Advocacy Groups. The U.S. Agencies are actively scrutinizing the GAI landscape as well. In June 2023, the FTC posted an entry on its Technology Blog outlining some of its high-level concerns with GAI.⁵⁰ The FTC highlighted that eventually only a few firms may control the essential inputs of data, computational resources, and labor talent. While recognizing that open-source FMs may play an important role in GAI development, the FTC voiced concern about firms offering “open” systems, but then “closing” them later, creating a locked-in ecosystem.⁵¹ The FTC also expressed concerns about GAMMAN firms aligning with various GAI input suppliers and developers in a way that may entrench the firms’ alleged pre-existing dominance.

In January 2024—following President Biden’s October 2023 Executive Order on AI (which touched on competitive concerns)⁵²—the FTC held an AI summit that focused specifically on GAI concerns surrounding chips, cloud computing, data, models, and consumer applications.⁵³ Commissioner Slaughter criticized the FTC’s past “hands-off” approach to tech consolidation, proposing proactive attention to GAI.⁵⁴

At the same time, the FTC issued five 6(b) investigative orders to Alphabet, Amazon, Anthropic, Microsoft, and OpenAI.⁵⁵ Chair Khan explained that while “new technologies can create new markets and healthy competition,” the Agencies must “guard against tactics that foreclose [competition]”—in particular, through “investments and partnerships pursued by dominant [tech] companies.”⁵⁶ Among other things, the FTC will review the competitive landscape for AI inputs and resources and the likely “competitive impact” of these arrangements.⁵⁷

The DOJ has made similar pronouncements. During a workshop on “Promoting Competition in AI,” Assistant Attorney General Jonathan Kanter observed that AI “can give already-dominant firms a substantial advantage” and stated that the DOJ’s Antitrust Division is “actively examining the AI ecosystem.”⁵⁸ More recently, the U.S. Agencies along with their international counterparts issued a joint statement outlining “concentrated control of market inputs,” “entrenching or extending market power,” and “arrangements involving key players” as risks to competition in the field of AI.⁵⁹

Further, the Open Markets Institute (“OMI”) recently provided a detailed assessment entitled, “AI in the Public Interest: Confronting the Monopoly Threat.”⁶⁰ In the OMI’s view, the GAMMAN firms are monopolists poised to exploit their monopoly power and advantages to entrench their existing dominance. The OMI calls for the Agencies—or Congress—to, among other things, (i) “[b]an all discrimination by powerful gatekeeper platforms,” (ii) recognize cloud computing as an essential infrastructure that should be regulated as a utility, (iii) likewise recognize data collection by large platforms as essential services that also should be regulated and controlled in the public interest, and (iv) “[r]everse gatekeeper efforts to control AI development through mergers, investments and partnerships and block similar deals in the future.”⁶¹

In sum, the alarm bells are loud and clear. But being able to do something about it is a whole other matter. After reviewing the Agencies’ concerns over GAI and the perceived advantages of GAMMAN firms in particular, some may assume that the Agencies can exercise their investigative and enforcement powers to create more, or optimal, competition in the GAI industry. But, unlike the U.K. and EU authorities, the U.S. Agencies do not have that power. Absent new legislation, the U.S. Agencies must work within the case-driven enforcement limits of U.S. antitrust law that effectively preclude a quasi-regulatory strategy to promote competitive market structures.

The U.S. Battle Lines

GAI Investments and Partnerships May Be Difficult to Challenge Under Section 1. From a U.S. perspective, these numerous GAI-related investment agreements or collaborations certainly can be assessed as “combinations” under Section 1 of the Sherman Act. The difficulty, however, will be to establish both that these agreements involve “restraints” and that they unreasonably harm competition in well-defined markets.

The “Full” Rule of Reason is Likely to Apply to the Primary Agreements. As a threshold matter, it may be difficult to characterize some of the GAMMAN-related collaborations as horizontal instead of vertical or conglomerate in nature. But even if one could characterize an investment or collaboration as “horizontal”—perhaps where, *ex ante*, each firm would otherwise pursue its own FM development—the

arrangements arguably could be characterized as integrative and output-enhancing, if not “essential.”⁶² Like many industries, tech-related innovation often involves financial risk-sharing, joint or complementary R&D efforts, and even joint or complementary commercialization; hence, it would be quite a stretch to characterize these arrangements as “naked” restraints or “inherently suspect” and therefore subject to a “quick look” analysis. Instead, the Agencies (or private plaintiffs) will likely have to contend with a full rule-of-reason standard that would require, among other things, proving that any agreement in question harms market-wide competition and that those effects outweigh any procompetitive benefits or justifications.

A Necessary Focus on Ancillary Agreements. The more interesting questions will center around any exclusivity or preferential treatment that comes with those agreements, which predictably is one of the focal points of the FTC’s recent inquiries.⁶³ The Agencies would first have to show that the particular restraint in question in fact harmed consumers and reduced competition in these rapidly evolving markets. Moreover, there could be compelling legal and economic arguments addressing whether these “restraints” are procompetitive, for example by incentivizing investment or protecting against free riding.

Section 7 Scrutiny Will Likely Involve New Enforcement Territory. The more likely enforcement theories and potential action will center around Section 7 of the Clayton Act and some of the new provisions of the 2023 Merger Guidelines (“MGs”).⁶⁴ Indeed, in several respects, the MGs were arguably drafted with an eye directly on tech-related ecosystems and the potential for a wide range of transactions and theories of incipient harm. But because few, if any, of the agreements in question could be easily cast as “horizontal,” there will likely be several complex issues to assess if and when the Agencies invoke Section 7 in the GAI industry.

Will Section 7 Apply at All? A threshold question—not taken on here—is whether Section 7 will even apply to all or most of the GAI-related transactions involving the GAMMAN firms. Certainly, the transactions do not need to be “reportable” under the Hart-Scott-Rodino premerger notification program for Section 7 to apply, yet the statute itself contains some minimum requirements. For our purposes here, we assume that Section 7 applies—for example, the broadly drafted Merger Guideline 5 appears to have been written to cover transactions (vertical, conglomerate or otherwise) that “Create a Firm That May Limit Access to Products or Services That Its Rivals Use to Compete”—reflecting a theory of potential competitive harm that will likely receive particular attention in GAI enforcement.⁶⁵

Little Horizontality, But What About Potential Competition or Nascent Acquisitions? If there is an elephant in the room for the Agencies’ review of GAI transactions under Section 7, it is the lack of horizontal transactions. In fact, the DOJ itself recently highlighted the challenge of proving anticompetitive effects when the merging parties are not

direct competitors.⁶⁶ It seems that parties, including GAMMAN firms, are predominantly engaging in transactions (agreements and mergers) that are either vertical (at different levels of the GAI supply stack) or conglomerate (involving complementary products, even if within the same GAI supply level, such as different FM inputs). Yet nearly all of the Agencies' litigated cases under the MGs have involved classic horizontal mergers where the markets are defined fairly narrowly (under the smallest-market principle and the hypothetical monopolist test) and the HHIs were quite high.⁶⁷ Further, not only do GAI transactions largely lack this type of horizontality, but they also often take place in segments (and likely "markets") that involve ongoing entry and expansion.

One possible response by the Agencies would be to focus on potential competition theories (Guideline 4). But by its own terms the theory involves potential entry (actual or perceived) in "concentrated" markets—i.e., the notion is that the effect (and likely purpose) of the transaction is to prevent the deconcentrating that the target would otherwise have brought to the market. It remains to be seen whether GAI-related markets will become increasingly concentrated, and to date, the potential competition theories in the new Merger Guidelines have been largely untested before the courts.

The more likely and fruitful theory that implicates horizontal competition would be for the Agencies to look at so-called "nascent" threats, where one party to the transaction appears to be in a position to challenge the other party with expansion, alone or through a different transaction. As we see from the Facebook case (also invoking Section 2),⁶⁸ the underlying premise is that the transaction threatens to block or deter future horizontal competition, even if the assets are not shut down (as in a so-called "killer" acquisition). This is a more likely focus for many of the GAMMAN transactions involving GAI, in which case the Agencies would likely need to demonstrate, and perhaps model, the nascent competitor's but-for development strategy in an evolving market environment.

Vertical, Raising Rivals Costs, and Entrenchment Theories. This is where the rubber is likely to hit the road for Section 7 application to the GAI supply stack, especially for transactions involving the GAMMAN firms. From the Agencies' perspective, the essential elements of a potential antitrust violation are there: firms with significant or allegedly dominant positions in some aspect of GAI taking an interest (partial acquisition) or combining some assets (merger or otherwise) with another firm that could provide products or services that its rivals use to compete.⁶⁹ One can see such a theory for transactions involving large data sets, chips, cloud computing, certain FMs, fine-tuning models, and so on. Apart from the jurisdictional questions over Section 7's application, the challenge here may be largely evidentiary. At a minimum, the U.S. Agencies would need to prove likely foreclosure or meaningful and predictable

effects to raise rivals' costs in the presence of market entry and expansion. Moreover, for most, if not all, of these transactions, the MGs afford efficiency arguments as long as the transactions do not involve the creation of monopolies. Thus, the Agencies would not only have to prove possible harm to competition in a well-defined market in the face of dynamic growth, but they also would have to contend with fairly common efficiency agreements and procompetitive justifications centered around vertical integration and/or complementarity.

A predictable fallback position for the Agencies is to look at "entrenchment" not from the GAI-marketplace perspective, but rather from the allegedly pre-existing dominant or monopoly positions of the GAMMAN firms in their respective ecosystems.⁷⁰ The notion here would be that a transaction could be shown to entrench one of those firms further within its own ecosystem, either through (i) foreclosure effects, (ii) a "feedback loop," or (iii) network effects that deprive rivals of sufficient volume to achieve efficient scale. While this would tend to minimize assessing GAI in its own right—essentially focusing on how GAMMAN firms attempt to maintain "gatekeeper" control over a new set of applications in their particular ecosystem—it fits well with the MGs' focus on entrenchment (Guideline 6) as well as some of the recent litigation successes in Big Tech.⁷¹ The risk, of course (as Professor Herbert Hovenkamp highlights elsewhere in this issue of *Antitrust*), is that the Agencies could be criticized for claiming "entrenchment" where the transaction may simply make a firm either more efficient or output-enhancing with new products and services.

Section 2: U.S. Judicial Limits, But a Laser Focus by Agencies and Private Plaintiffs. If there is any area where the U.S. courts limit the Agencies (and the plaintiffs' bar) relative to their non-U.S. counterparts, it is monopolization.⁷² This is especially challenging when the major global themes for addressing GAI from a competition perspective focus on access to rivals, prevention of "leveraging," and a policy goal of optimizing competitive market structures.

Identifying Monopoly Power. A difficult threshold problem for Section 2 enforcement in GAI is if the segments in the GAI supply stack become more structurally competitive, not less. Indeed, even if some of the potentially exclusionary behavior may reasonably be identified, the GAI supply stack may just settle into some form of oligopoly structure. Unlike the innovation cycle of Big Tech, the GAMMAN firms are now all in the hunt for GAI. As such, it is hard to predict which segments (if any) may develop in a winner-take-all monopoly fashion. Accordingly, it could be challenging to apply Section 2 directly to GAI markets, and as with Section 7, the entire subject area may devolve into a focus on the GAMMAN's pre-existing markets—including the consistent focus on "aftermarkets" and alleged monopoly power.

Conduct Allowed in the U.S.—Even by Alleged Monopolists. In considering potential Section 2 misconduct

related to GAI, the most important point to remember is that what alleged monopolists are allowed to do in the United States may not be permissible in the U.K., EU, and elsewhere. Specifically, in the United States, a firm may refuse to deal with a rival or vertically-related firm, even if that conduct may have adverse market consequences.⁷³ The only exception is a refusal in the context of a prior *Aspen*-like relationship where the alleged monopolist abruptly changes a profitable (and typically long-established) collaborative relationship with a rival without legitimate justification.⁷⁴ Likewise, in the United States, *Trinko* has left little of an “essential facilities” doctrine that, elsewhere, may give rise to a duty to deal.⁷⁵ And, finally, under *Trinko*, simply “leveraging” one’s historical advantages into an adjacent market cannot be an independent Section 2 violation—there would need to be additional, cognizable misconduct (e.g., tying).

In short, these doctrinal differences make it relatively difficult for the U.S. Agencies and private plaintiffs to bring claims that primarily reflect refusals to deal or leveraging, which as it relates to GAI are the two likely primary theories of misconduct outside the United States. Hence, if an alleged monopolist emerges in a GAI supply segment or if an alleged GAMMAN monopolist does little more than refuse to deal or “leverage” its power in related markets without cognizable exclusionary conduct, the U.S. Agencies will likely face an uphill battle.

Feedback Loops and Network Effects. As noted above, one of the primary concerns in non-U.S. jurisdictions is that the perceived pre-existing advantages of the GAMMAN firms—e.g., access to data, compute, programming, and downstream distribution—will have a natural tendency to perpetuate themselves. One way this may occur is through a so-called “feedback loop,” where the control of critical inputs may restrict access by rivals, which in turn may protect existing positions and market access points from disruption, which then—in a loop—may further entrench the firm’s control of the upstream inputs.⁷⁶ In the view of enforcers, these effects are enhanced by investments, partnerships, and acquisitions that span the GAI supply stack.⁷⁷ Yet, they also may naturally evolve from pre-existing advantages over access to data, computing power, and human resources—all effects that arguably may lawfully be “leveraged” by U.S. firms.

Another basis for concern about the GAMMAN firms taking advantage of preexisting advantages is the well-known phenomenon of network effects—where the more a product is used by consumers, the more other consumers want it as well. In contrast to the traditional supply-side economies of scale, network effects reflect demand-side economies of scale. If direct network effect (or indirect network effects between two sides of the platform) are sufficiently strong and multi-homing is limited, one may find “winner-take-all” dynamics that do not necessarily reflect anticompetitive behavior.⁷⁸

Again, outside the U.S., enforcement and regulatory bodies have the power and policy prerogative to confront

these types of “leveraging” effects as “anticompetitive” in outcome, and, indeed, they take it as their mission to try and prevent feedback loops and network effects from “tipping” markets in the favor of advantaged incumbent firms or those already dominating an ecosystem. This, however, may not currently be a winning Section 2 argument in the United States, absent some connection to separate and distinct misconduct by a monopolist that maintains that power or threatens the creation of monopoly power in a related market.

Self-Preferencing, Bundling, and Tying. For all these reasons, Section 2 investigations and litigation in GAI may evolve along the same lines as the history of Section 2 challenges to Big Tech, all the way back to *Microsoft*⁷⁹ and up to today’s active Big Tech cases. And, no doubt, the U.S. Agencies and private plaintiffs have had some degree of success in pursuing these Section 2 liability theories. In this GAI context, the battles will remain fierce as well.

The object here is not to review the current state of Section 2 law (or Section 1, where applicable) on self-preferencing, bundling, and tying. For example, some view self-preferencing by vertically integrated firms as legally privileged conduct and essentially the same as an integrated enterprise preferencing its own divisions over third-parties.⁸⁰ Unless a GAI product becomes sufficiently dominant in a well-defined, relevant market, however, any Section 2 case will likely center around the markets and/or “aftermarkets” in which the GAMMAN firms already possess alleged monopoly power.

In the GAI context, then, we can anticipate that these not-so-novel fights will continue, but with the GAI products as the companion pieces: self-preferencing through, for instance, pre-installment (e.g., the recent Apple and OpenAI partnership); alleged discriminatory treatment and support; bundling by offering GAI products at a discount (or other benefit) when purchasing other products; or the ever-present allegations of tying (if one has not yet learned the *Microsoft* lessons).⁸¹ By the time GAI products are widely commercialized, we will certainly have case developments under these theories that may be easier to resolve in the GAI space.

Conclusion: The U.S. is a Difficult Place to Battle Over GAI

There is mystery, confusion, and excitement over the future of GAI, and it applies no less to the attempt to determine how antitrust policy and enforcement will tackle the challenges of this new wave of innovation on top of an already complex Big Tech antitrust environment. But, in the United States, the Agencies and private plaintiffs face significant limits across the statutory landscape, especially where courts continue to focus on proof of anticompetitive effects in distinct markets. A general desire to rein in Big Tech and its perceived or real GAI advantages may not be enough; nor, unlike the U.K. and EU authorities, can the U.S. Agencies

essentially experiment with “shaping” the GAI supply structure in ways that promote competition. Instead, the Agencies (and private parties) will have to take on the task of demonstrating anticompetitive effects flowing from GAI-related antitrust misconduct and measurable (or predictable in the Section 7 context) market-wide effects under the prevailing consumer welfare standard, while taking into consideration the rapidly evolving GAI-related marketplaces and the dynamic effects of innovation. ■

¹ Merriam-Webster Dictionary, May 7, 2024.

² See generally Brandenburger, Faulk & McFarland, *Antitrust in the Age of AI*, CPI Antitrust Chronicle (Aug. 2023); FTC Bureau of Competition & Office of Technology, “Generative AI Raises Competition Concerns,” Federal Trade Commission Press Release, June 29, 2023; CMA, AI Foundation Models: Update Paper, April 11, 2024; European Commission, “Commission launches calls for contributions on competition in virtual worlds and generative AI,” *European Commission Press Corner*, January 9, 2024.

³ See Lina Khan, “We Must Regulate A.I. Here’s How,” *The New York Times*, May 3, 2023.

⁴ *Id.*

⁵ See “Generative AI Raises Competitive Concerns,” Federal Trade Commission Press Release, June 29, 2023.

⁶ *Id.*

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¹⁵ See *supra* note 8, at p. 28.

¹⁶ See *supra* note 13, at p. 15.

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⁶⁰ See *supra* note 7.

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⁶⁴ See US Department of Justice and the Federal Trade Commission, “Merger Guidelines,” December 18, 2023.

⁶⁵ *Id.* at p. 3.

⁶⁶ See DOJ Antitrust Division Counsel to the Assistant Attorney General Markus Brazill, “Keeping AI Competitive: Assessing M&A Proposals,” 2023

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⁶⁸ See *FTC v. Facebook, Inc.*, No: 1:20-cv-03590-JEB (D.D.C. 2021).

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⁷³ *Verizon Communications, Inc. v. Law Offices of Curtis V. Trinko LLP*, 540 U.S. 398 (January 13, 2004).

⁷⁴ *Aspen Skiing Co. v. Aspen Highlands Skiing Corp.*, 472 U.S. 585 (1985).

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