UNITED STATES OF AMERICA
BEFORE THE FEDERAL TRADE COMMISSION

COMMISSIONERS: **Lina M. Khan, Chair**
Noah Joshua Phillips
Rebecca Kelly Slaughter
Christine S. Wilson

In the Matter of	
Nvidia Corporation, a corporation, **Softbank Group Corporation**, a corporation, and **Arm, Ltd.**, a corporation.	**Docket No. 9404** **REDACTED-PUBLIC VERSION**

COMPLAINT

Pursuant to the provisions of the Federal Trade Commission Act ("FTC Act"), and by virtue of the authority vested in it by the FTC Act, the Federal Trade Commission ("Commission"), having reason to believe that Respondents Nvidia Corporation ("Nvidia"), Softbank Group Corporation ("Softbank"), and Arm Ltd. ("Arm") have executed a merger agreement in violation of Section 5 of the FTC Act, 15 U.S.C. § 45, which if consummated would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the FTC Act, and it appearing to the Commission that a proceeding by it in respect thereof would be in the public interest, hereby issues its complaint pursuant to Section 5(b) of the FTC Act, 15 U.S.C. § 45(b), and Section 11(b) of the Clayton Act, 15 U.S.C. § 21(b), stating its charges as follows:

NATURE OF THE CASE

1. Nvidia is one of the world's largest and most valuable computing companies. Nvidia proposes to acquire Arm, the world's largest and most significant licensor of designs and architectures for computer processors, in a deal valued at more than $40 billion (the "Proposed Acquisition"). If consummated, the Proposed Acquisition would allow the combined firm to use its control of Arm to harm Nvidia's rivals in ways that substantially lessen competition—including innovation, price, and feature competition—in multiple markets.

2. Arm develops and licenses central processing unit ("CPU") designs and architectures ("Arm Processor Technology"). Arm Processor Technology consists of specific designs for CPUs that Arm develops and licenses to others and a CPU instruction set architecture that Arm licenses to others who want to develop their own specific CPU designs. As part of the Arm Processor Technology business, Arm also provides customers with corresponding services, support, and ancillary products. Through the combination of its advanced technology and neutral licensing business model, Arm has become a de facto industry standard for CPU processor technology contained in billions of computer chips worldwide. According to Nvidia's CEO, Arm is "the world's most popular computing platform."

3. Arm Processor Technology is at the foundation of many innovative products of our modern digital age, including nearly every smartphone on the market, advanced driver assistance features in recent and upcoming cars, web servers that can provide significantly better cost performance over the most comparable non-Arm servers, and many other examples. In these products, Arm Processor Technology is a critical input. The wide deployment of Arm's Processor Technology has fostered a vibrant ecosystem of software and hardware developers, software, and devices.

4. Arm does not make or sell computer chips ("chips") or chip-based devices. Rather, Arm licenses Arm Processor Technology, also referred to in the industry as CPU intellectual property or "IP," using an industry-described neutral, open licensing approach. Arm is often dubbed the "Switzerland" of the semiconductor industry for this approach. Arm partners with its licensees to promote and support Arm's technologies, even as those partners compete with each other to sell chips and devices relying on Arm Processor Technology in downstream markets (the "Downstream Markets"). Arm's partnerships with its licensees regularly result in Arm receiving sensitive business information from its licensees. The fact that Arm does not itself compete in the Downstream Markets gives its partners a high level of trust in Arm as a critical input supplier that will not exploit its control over those inputs to gain a competitive advantage against its partners.

5. Unlike Arm, Nvidia supplies and markets finished chips and devices. Nvidia is best known as the dominant supplier of standalone graphics processing units ("GPUs") for personal computers ("PCs") and datacenters, which are computing facilities with large numbers of server computers. GPUs are widely used for artificial intelligence ("AI") processing and graphics processing, among other computational tasks.

6. For years, Nvidia has licensed Arm's Processor Technology to create a wide range of computing products, many of which compete with products of other Arm licensees. For

example, Nvidia and its competitors alike use Arm Processor Technology to create chips for advanced driver assistance systems for passenger cars. Nvidia and other companies also develop additional categories of Arm-based products, including advanced networking products and datacenter CPUs, among other products. While Nvidia's designs for standalone GPUs do not incorporate Arm Processor Technology, Nvidia integrates or plans to integrate its GPU technology with Arm Processor Technology in certain products, such as its chips for advanced driver assistance systems for passenger cars.

7. The Proposed Acquisition will substantially lessen competition in multiple markets because it will create a combined firm that has both the ability and the incentive to use its control of Arm to diminish competition by undermining Nvidia's rivals.

8. Post-Acquisition, Nvidia will have the ability to disadvantage its rivals through its control of Arm through various mechanisms, including by manipulating levers such as Arm's pricing, the terms and timing of access to Arm's Processor Technology (including withholding or delaying access), Arm's technological developments and features, and Arm's provision of service and support, among other mechanisms.

9. Post-Acquisition, Nvidia will have strong incentives to harm its Arm-reliant rivals. In markets in which Nvidia competes using Arm Processor Technology, the profits on additional sales that Nvidia would earn as a chip supplier are generally higher than the profits that Arm would earn from licensing its Processor Technology to Nvidia's rivals. Here, this relationship gives Nvidia a strong economic incentive to preference winning business for its own downstream products over licensing Arm Processor Technology or providing the same level of support, access, and investment to its own rivals after the Proposed Acquisition.

10. In addition to the harm Nvidia can directly inflict on its rivals, aligning Arm with Nvidia will likely result in further harms due to a critical loss of trust in Arm by its own licensees, and overall investment and innovation in the Arm ecosystem will likely be reduced. Today, for example, Arm's licensees—including Nvidia's rivals—share competitively sensitive information with Arm. Recognizing that Nvidia would be able to misuse this information for Nvidia's own competitive purposes, Nvidia's rivals will be less likely to share competitively sensitive information with Arm if the Proposed Acquisition closes. Innovation and other procompetitive actions that otherwise would have occurred through the open sharing of information with Arm will be chilled.

11. The Proposed Acquisition also will likely further harm innovation because, today, Arm regularly receives innovative ideas from its licensees across the semiconductor industry and pursues new technological developments that it believes will yield the most benefit to its business. But Nvidia would be less likely to dedicate Arm's resources toward otherwise beneficial innovative developments of Arm Processor Technology that would harm Nvidia.

12. These effects are likely to be felt throughout the computing industry. Among the markets affected, the Proposed Acquisition is likely to substantially lessen competition in key emerging and quickly-developing markets for products used in datacenters, including for networking and central processing, and in advanced driver assistance systems that are increasingly used in the automotive industry.

JURISDICTION

13. Respondents Nvidia, Arm, and Softbank are each "corporations" as defined in Section 4 of the Federal Trade Commission Act, 15 U.S.C. § 44, and in Section 1 of the Clayton Act, 15 U.S.C. § 12.

14. Respondents are engaged in activities in or affecting "commerce" as defined in Section 4 of the Federal Trade Commission Act, 15 U.S.C. § 44, and in Section 1 of the Clayton Act, 15 U.S.C. § 12.

15. The Proposed Acquisition constitutes a merger subject to Section 7 of the Clayton Act, 15 U.S.C. § 18.

RESPONDENTS AND THE PROPOSED ACQUISITION

16. Respondent Nvidia is a publicly-traded Delaware corporation, headquartered in Santa Clara, California, and founded in 1993. Its total revenues in the fiscal year ended January 31, 2021 were $16.68 billion. Nvidia develops and markets microprocessor products and associated software. Nvidia is the leading global supplier of standalone GPUs and has consistently maintained its position as the dominant supplier of such products. Nvidia also develops and markets chips, devices, and associated software for other applications, including advanced networking products, advanced driver assistance systems, datacenter CPUs, and other product lines.

17. Respondent Arm is a corporation, headquartered in Cambridge, United Kingdom, and founded in 1990. Arm's total revenues in 2020 were $1.86 billion. Arm is currently owned by SoftBank, which acquired Arm in 2016. Arm develops semiconductor processor technology, licenses it to chip designers, and provides related service and support. Arm describes itself as [redacted] As of January 2020, Arm had over [redacted] licensees.

18. Respondent Softbank is a corporation, headquartered in Tokyo, Japan, and established in 1986. Softbank owns Arm. Softbank operates as a strategic investment holding company, aiming to invest in "a diverse group of companies with outstanding technologies or business models in their respective fields." As of March 31, 2021, Softbank counted 335 subsidiaries and affiliates among its group companies. Softbank's net sales in fiscal year 2020 were 5,204.4 billion yen (approximately $47 billion). Softbank began exploring the sale of Arm in [redacted] In June 2020, Arm's CEO described the company in an email to a Softbank board member as [redacted]

19. Ultimately, Softbank and affiliated entities entered into a Share Purchase Agreement to sell Arm to Nvidia on September 13, 2020. The deal was valued at $40 billion at signing. Due to increases in the value of Nvidia's stock since then, it is now valued at over $50 billion.

20. Before the merging parties entered into the Share Purchase Agreement, the merging parties and industry analysts recognized that the Proposed Acquisition was likely to face significant antitrust scrutiny. In recognition of this problem, Nvidia agreed to pay Arm's owner, Softbank, a $1.25 billion fee if the transaction terminates after a failure to obtain antitrust approvals.

BACKGROUND

21. This case is about Nvidia's proposed takeover of Arm. Arm Processor Technology is incorporated in billions of chips and devices sold today—including products from Nvidia's competitors as well as Nvidia itself. If the Proposed Acquisition were allowed to proceed, Nvidia would gain control of Arm's Processor Technology, a critical input that currently enables these competitors to compete vigorously with Nvidia. Nvidia will have the ability and incentive to use its control of Arm's Processor Technology to undermine its competitors, reducing competition and ultimately resulting in reduced product quality, reduced innovation, higher prices, and less choice, harming the millions of Americans who benefit from products that incorporate Arm's Processor Technology.

I. Arm and Its Neutral Licensing Model

22. Arm licenses Arm Processor Technology to more than a thousand licensees. These range from innovative startups who have yet to make their first sale to large, established technology companies. Many of Arm's licensees, including Nvidia, are "fabless" semiconductor companies. This means that they design and market computer chips (or products containing chips) but outsource the physical manufacturing of these chips to specialized manufacturers.

23. Arm achieved its status as a foundational technology for so many innovative products because of its neutral licensing business model that fosters trust, collaboration, and engagement between Arm and its licensees. As Arm's longtime chief architect has explained, [redacted]

24. Arm's licensing model is based on upfront license fees and royalties. Arm offers two basic categories of technology licenses: architectural licenses and implementation licenses. Architectural licenses grant holders the right to create their own Arm-based CPU designs using Arm's instruction set architecture ("ISA"). Implementation licenses grant holders the right to use Arm's own specific CPU designs in their products. Arm's business model is based on its current commercial incentives and has contributed substantially to the growth, innovation, and success of Arm and the Arm ecosystem.

25. Arm typically profits when its licensees sell more units. Thus, Arm has an incentive to expand the usage of Arm Processor Technology under its royalty-based model. Arm therefore devotes considerable effort to enabling its licensees to succeed. According to Arm's president, [redacted]

26. Arm actively solicits input from its licensees for enhancing Arm's ISA and implementation designs. Arm also collaborates with licensees on the development of major features. Licensees regularly suggest new features to Arm, expecting that if Arm agrees to implement their suggestion, Arm will incorporate the feature in a manner that permits the new feature's proponent to benefit, while also generally making the improvement available to other licensees. This joint innovation and research and development benefits the computing industry and, ultimately, consumers.

27. Licensees routinely share confidential and commercially sensitive information with Arm when collaborating. Licensees share information such as strategic plans, project timelines and development schedules, manufacturing process plans, use cases, customer requirements, and product bugs or challenges. This type of information sharing depends on trust, enables licensees to bring better products to market faster, and is critical to Arm's success and history of innovation.

28. Arm also collaborates and works with licensees to develop, produce, troubleshoot, and implement the licensees' Arm-based products. For instance, Arm may advise licensees that a particular technical decision is unlikely to succeed, thereby steering the licensee away from a costly error. Arm also helps its licensees by explaining aspects of the Arm architecture and resolving technical difficulties.

29. In tandem with collaborating with licensees on product innovation and development, Arm also dedicates time, effort, and resources to promoting the adoption of Arm-based products in Downstream Markets that include multiple licensees' products. Arm interacts with its licensees' customers to understand their markets, explain Arm's capabilities and benefits, and help sell licensees' products. Arm's actions to promote its licensees' Arm-based products today involve supporting and promoting the products of multiple licensees who themselves are competitors.

II. <u>Computer Processors</u>

30. There are different types of computer processors. According to Nvidia, three of the most important are central processing units ("CPUs"), graphics processing units ("GPUs"), and data processing units ("DPUs"). Nvidia's CEO has described the CPU, GPU, and DPU as "the three most important," "central," "fundamental" technologies in a computer.

31. CPUs are processors that execute the primary computing instructions for electronic computing devices such as laptops, smartphones, datacenter servers, and chips supporting advanced driver assistance features in a passenger vehicle. When one or more CPUs are combined on a single chip with additional circuitry for performing other functions of a computer system, such as memory or co-processors, the resulting chip is sometimes termed a "system-on-a-chip" or "SoC." CPUs may consist of one or more CPU "cores," which are the individual processing units within a CPU chip. Multiple cores may be combined into one multi-core "CPU" chip or SoC. At times, however, the terms "cores" and "CPUs" are used interchangeably in the industry.

32. CPUs are based on an instruction set architecture ("ISA"). CPU ISAs include the Arm ISA, the x86 ISA, the RISC-V ISA, and the MIPS ISA, among others.

33. Software written for use by CPUs based on one ISA is generally not natively compatible with CPUs based on a different ISA. Each ISA has its own ecosystem of associated and natively compatible software, hardware, developers, and users. An ecosystem is generally more attractive if it has more software, hardware, developers, and users for any given computing market.

34. The x86 ISA has predominantly been deployed in CPUs for laptops, desktops, and servers. Intel created the x86 ISA, and Intel and AMD are the only two suppliers of x86 CPUs. Historically, the x86 ISA has not been licensable, and Intel and AMD have designed and marketed their own chips based on the x86 ISA. In 2021, Intel indicated that it planned to make some x86 technology available for license by customers of its chip manufacturing plants under certain circumstances. [redacted] involves limitations, including the apparent requirement to use Intel manufacturing plants and relying on a potentially competing chip supplier, Intel, for a critical input.

35. RISC-V is a free, open-source ISA that researchers at the University of California, Berkeley first developed. RISC-V was released to the public in 2011. Development of the RISC-V ISA is managed by a nonprofit foundation. The RISC-V ISA has predominantly been deployed in less complex applications, such as for low-end, embedded processors that do not run external software applications—for instance, processors found in relatively simple 'Internet of Things' devices like 'smart' doorbells or other 'smart' appliances. Many Arm licensees view the RISC-V technology and software ecosystem as inferior to Arm Processor Technology and the Arm ecosystem for many applications.

36. MIPS is an ISA that MIPS Computer Systems developed and that Wave Computing owns today. The MIPS architecture is declining in relevance and Wave Computing has announced that it will no longer develop MIPS in the future.

37. CPUs based on the Arm ISA are found in billions of chips worldwide, making Arm "the world's most popular computing platform" and [redacted] according to Nvidia. Arm-based CPUs, which are known in particular for their low power consumption, are found in the vast majority of smartphones, tablets, and other low-powered computing devices.

38. Arm-based CPUs also are increasingly found in laptop and desktop personal computers (PCs), and in datacenter servers. For example, in 2020, Apple began switching its entire line of Mac laptops and desktops from Intel x86 CPUs to an Arm-based SoC that Apple designed (called the "M1"). When Apple launched the M1, it emphasized its high performance and low power consumption, describing it as "the world's best CPU performance per watt," enabling significant computing performance increases "all while enabling battery life up to 2x longer than previous-generation Macs." Arm-based CPUs from chip suppliers such as MediaTek and Qualcomm are also deployed in laptops, and [redacted] Similarly, large cloud service providers, such as [redacted] are now deploying or planning to deploy Arm-based CPUs in datacenter servers. Because cloud datacenters often consume large amounts of electricity, the lower power consumption of Arm-based CPUs is seen as particularly attractive.

39. Most of the chip suppliers competing to supply SoCs for high-level automotive advanced driver assistance systems (ADAS) use Arm-based chip designs, including Nvidia. High-Level ADAS systems for passenger vehicles offer computer-assisted driving functions, such as automated lane changing, lane keeping, highway entrance and exit, and collision prevention, as discussed below.

40. Some computing devices also contain one or more GPUs to assist in certain tasks. As the name suggests, GPUs were originally developed to perform specific graphics tasks in applications such as video games. However, because GPUs excel more generally at parallel processing tasks, GPUs are now deployed in many other applications including in datacenters for accelerating tasks like machine learning algorithms (a type of artificial intelligence processing). Nvidia also integrates or plans to integrate its GPUs into other devices, such as its ADAS SoCs. GPUs do not run on their own without a host CPU. Nvidia anticipates GPUs to be central in "modern AI — the next era of computing — with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world."

41. DPUs or DPU SmartNICs (also referred to as infrastructure processing units ("IPUs")) are an important emerging category of networking devices designed for datacenters and other networked environments. As Nvidia describes it, "The DPU places a 'computer in front of the computer' for each server, delivering separate, secure infrastructure provisioning that is isolated from the server's application domain." More specifically, a DPU is a network interface device that incorporates software-programmable CPU cores for offloading and isolating networking, security, virtualization, and other datacenter support tasks from the server's main (or "host") CPU. By isolating these tasks away from the host CPU, DPUs provide added security and free up the host CPU to focus on running users' desired applications, rather than datacenter infrastructure functions. Nvidia, in its internal documents, refers to DPUs as one of the "three pillars" or the "holy trinity" of computing, along with CPUs and GPUs, and Nvidia believes that eventually every server will incorporate a DPU. Nvidia's DPUs rely on Arm Processor Technology, as do those of most other competitors.

III. <u>Nvidia and Its Arm-Based Products Today</u>

42. Nvidia is one of the largest and most valuable chip suppliers in the world. Nvidia competes in a wide range of computing markets today and expects to compete in more markets in the future.

43. Nvidia has been an Arm licensee for many years. During that time, Nvidia has successfully developed and sold chips that incorporate Arm-based designs that Nvidia developed itself using an architectural license from Arm as well as chips that incorporate Arm-based designs that Nvidia obtained from Arm via implementation licenses.

44. Nvidia can already receive the benefits of Arm Processor Technology without acquiring Arm. Nvidia has invested in the Arm ecosystem over many years and continually developed innovative, cutting-edge products by combining Arm Processor Technology with Nvidia's proprietary technology. For example:

a. Nvidia's Orin product is an Arm-based SoC for High-Level advanced driver assistance systems (ADAS) that is "the new mega brain of the software-defined

vehicle," capable of "power[ing] all the intelligent computing functions inside vehicles."

b. Nvidia's Grace product is an Arm-based CPU that Nvidia views as the "basic building block of the modern data center." According to Nvidia, this product is capable of "deliver[ing] 10x the performance of today's fastest servers on the most complex AI and high performance computing workloads."

c. Nvidia's Bluefield-3 product is an Arm-based DPU SmartNIC that "delivers the most powerful software-defined networking, storage and cybersecurity acceleration capabilities available for data centers," with processing equivalent to "up to 300 CPU cores, [thereby] freeing up valuable CPU cycles to run business-critical applications."

d. Nvidia makes other Arm-based computing products, including chips for video gaming consoles, high-performance "Internet of Things" industrial devices, and more.

45. Nvidia committed to developing a wide variety of Arm-based products long before pursuing this Proposed Acquisition. On September 14, 2020, Nvidia's CEO told investors (in a public investor call announcing the Proposed Acquisition) that "last year"—before Softbank had even offered Arm for sale—Nvidia had already "decided [for datacenters] that we would adopt and support the Arm architecture for the full NVIDIA stack, and that was a giant commitment." "The day we decided to do that," he continued, "we realized this is going to be for as long as we shall live. And the reason for that is because once you start supporting the ecosystem, you can't back out."

IV. <u>The Proposed Acquisition Will Result in an Anticompetitive Change in Incentives</u>

46. Prior to the Proposed Acquisition, Arm's incentive has been to expand broadly the use of Arm Processor Technology because Arm typically profits when its licensees sell more units. To that end, Arm partners with its licensees to develop competitive products. This collaboration includes development of major features of Arm Processor Technology, support for licensees' own efforts to innovate using Arm Processor Technology, and promotion (and other sales help) for its licensees as they compete to sell their products. In short, Arm's incentives as an independent firm cause it to encourage the success of Arm licensees in the Downstream Markets.

47. Nvidia's incentives are starkly different than Arm's. Nvidia competes to sell its products against many of Arm's other licensees. Nvidia makes profits when it makes a sale and loses profits when another Arm licensee makes a sale in its place.

48. After the Proposed Acquisition, the combined firm will not have Arm's same premerger incentive to enable its licensees' success in the Downstream Markets. Instead, the combined firm will have the incentive to engage in foreclosure strategies. Foreclosure strategies involve withholding a critical input from rivals, delaying or degrading access to the input (including delaying or degrading service and support), unfavorably changing the terms on which the input is made available to rivals, or otherwise using the critical input to raise their costs or

disadvantage them. In each relevant market at issue in this case, Nvidia already has a strategic imperative to win sales from its rivals, and Nvidia's profits on additional sales in the downstream market are likely to be larger than the profits from continuing to neutrally license Arm's Processor Technology or to provide the same level of support, access, and investment to licensees. Moreover, because of the evolving nature of computing markets, Nvidia's incentives to use Arm to harm its rivals are amplified by the benefits of preventing innovations in Arm Processor Technology that could lead to greater future competition against Nvidia, including competition with Nvidia's GPU business.

49. Arm employees recognize the problematic change in incentives that the Proposed Acquisition will cause. For example, in response to the Proposed Acquisition, Arm employees asked (or predicted licensees would ask) questions highlighting the basic conflicts of interest associated with Nvidia buying Arm, such as:

a. [redacted]

b. [redacted]

c. [redacted]

d. [redacted]

50. Arm's CEO likewise has recognized that [redacted] He further recognized that [redacted]

51. Nvidia insiders also recognized the anticompetitive change in incentives. For example, insiders asked:

a. [redacted]

b. [redacted]

c. [redacted]

d. [redacted]

e. [redacted]

f. [redacted]

52. Nvidia insiders also [redacted] For example, a Bank of America Securities analyst noted "[a]ny potential deal could face intense and prolonged regulatory scrutiny given ARM's currently neutral position as a technology enabler for the entire semis industry including many of [Nvidia's] competitors." An analyst from another large investment firm wrote: "[T]here could be a myriad of conflict of interest issues whereby [Nvidia] could have access to competitor strategies/technologies in a variety of [Nvidia] markets, notably Auto and perhaps to an increasing extent, datacenter."

53. Post-Acquisition, the combined firm will also have the ability to harm Nvidia's Arm-reliant rivals. There are numerous full or partial foreclosure strategies that it can use to disadvantage its rivals—sometimes without the rival ever knowing the strategy was executed.

RELEVANT MARKETS AND ANTICOMPETITIVE EFFECTS

54. The Proposed Acquisition is likely to substantially lessen competition in multiple relevant antitrust markets, resulting in reduced innovation and more expensive or lower quality products.

55. The Proposed Acquisition will result in a combined firm with the ability and incentive to use foreclosure strategies involving a critical input to undermine its rivals in one or more relevant markets, and the Acquisition will not produce cognizable procompetitive effects.

56. The transaction is likely to substantially lessen competition in relevant antitrust markets for DPU SmartNICs, High-Level Automotive ADAS Central Compute SoCs, and Arm-Based Datacenter CPUs for Cloud Computing Service Providers.

57. In addition, the transaction is likely to harm competition by giving Nvidia access to the competitively sensitive information of Arm's licensees and by decreasing the incentive for Arm to pursue innovations in its Processor Technology that are perceived to conflict with Nvidia's business interests.

I. DPU SmartNICs are a Relevant Product Market

58. DPU SmartNICs are a relevant product market for evaluating the likely competitive effects of the Proposed Acquisition. The corresponding relevant geographic market is worldwide.

59. DPU SmartNICs are network interface devices that incorporate software-programmable CPU cores for offloading and isolating processing tasks related to networking, security, virtualization, and other datacenter support services from the server's main CPU (also called the "host" CPU). DPU SmartNICs increase server compute efficiency and security.

60. The DPU SmartNIC market is nascent but growing rapidly.

61. Nvidia is a significant, aggressive, and rapidly growing participant in this market with its Arm-based Bluefield product line.

62. Nvidia competes against several other companies currently vying to supply DPU SmartNIC solutions, including Pensando, [redacted] Xilinx, Broadcom, Marvell, and Intel. All of these suppliers use Arm-based designs for DPU SmartNIC products, including Intel, despite its unfettered access to the x86 architecture.

63. There are no commercially reasonable interchangeable substitutes for DPU SmartNICs. For example, Network Interface Controllers (NICs) that lack software-programmable CPU cores are not reasonably interchangeable substitutes. These products are part of a spectrum of network devices that range from "basic" NICs with no offload capabilities to more advanced NICs that also perform some networking acceleration processing tasks but lack software-programmable CPU cores. DPU SmartNICs have distinct features and functionality compared to such products. For instance, DPU SmartNICs allow valuable network security features by isolating computing workloads to protect applications running on the main server CPU from attacks. DPU SmartNICs also have distinct (and higher) prices compared to other NIC products.

II. The Proposed Acquisition is Likely to Harm Competition for DPU SmartNICs

64. The Proposed Acquisition would result in a combined firm with the ability and incentive to engage in foreclosure strategies targeting Nvidia's rivals in the market for DPU SmartNICs.

65. After the Proposed Acquisition, the combined firm would have the ability to harm Nvidia's rivals for DPU SmartNICs. Arm Processor Technology is a critical input for DPU SmartNIC products. Virtually all major DPU SmartNIC suppliers, including Nvidia and its direct competitors, incorporate Arm Processor Technology and rely on the Arm architecture as a critical component in their products. According to Nvidia's own definition, DPUs include "[a]n industry-standard, high-performance, software-programmable, multi-core CPU, ***typically based on the widely used Arm architecture***. . . ." (emphasis added).

66. DPU SmartNICs depend on Arm Processor Technology for multiple reasons, including, but not limited to:

a. Arm Processor Technology offers the ability to build high-performance CPU cores that are customizable and scalable.

b. Arm-based cores offer the necessary high performance without the cost of increased power usage. Efficient power usage is critical for DPU SmartNIC applications because these applications often have power constraints.

c. Significant investments have been made in Arm-compliant software, which would be costly and risky to reinvent. Arm has developed and delivered on a vibrant roadmap, which has sparked the development of a rich set of tools and applications comprising the Arm ecosystem.

d. Arm provides broad support for product development and improvement. Arm collaborates with and provides assistance to its partners on the development and deployment of DPU SmartNICs, including on design, features, production, testing, marketing, sales, and other activities.

67. There are no close substitutes for Arm Processor Technology for DPU SmartNICs. Even if there were a close alternative to Arm, switching, in and of itself, is a large cost to impose on Arm's customers. Such architectural switches are time and resource intensive and expensive.

68. Other CPU architectures are not close alternatives to Arm for DPU SmartNICs. MIPS is an ISA whose use in the computing industry has been declining and which lacks a vibrant ecosystem, especially compared to Arm. RISC-V lacks the performance, support, and advanced software ecosystem that characterize Arm. x86 CPUs are not well suited for DPU SmartNIC applications. Even Intel, the company that introduced and owns the x86 CPU ISA, is using Arm Processor Technology in certain Intel DPU SmartNIC products.

69. The Proposed Acquisition would give the combined firm the ability to use foreclosure strategies to disadvantage rivals in the market for DPU SmartNICs through a variety of mechanisms, including by controlling Arm's pricing, the terms and timing of access to its Processor Technology, its technological development and features, and its provision of services and support, among other mechanisms. Arm already has such abilities today, but it does not have the incentive to use such mechanisms to undermine Nvidia's rivals.

70. The Proposed Acquisition also would give the combined firm the incentive to use foreclosure strategies to harm Nvidia's DPU SmartNIC rivals. Nvidia already views winning the DPU SmartNIC market as a key strategic priority. As Nvidia's CEO put it in one email, [redacted]

71. Nvidia's dedication makes good sense. The DPU SmartNIC market is expected to grow rapidly into a multi-billion dollar market as the DPU SmartNIC takes its place as what Nvidia views as the third pillar in datacenters next to CPUs and GPUs.

72. Post-Acquisition, the combined firm would likely have a substantial incentive to engage in foreclosure strategies because profits from additional sales of DPU SmartNICs would

be higher than any foregone proceeds of licensing Arm Processor Technology to Nvidia's DPU SmartNIC rivals.

73. Current competition with Arm licensees has already forced Nvidia to lower its DPU SmartNIC prices and drives Nvidia to improve its product. [redacted] Internal business documents confirm Nvidia's Bluefield [redacted] Internal documents also show that [redacted]

74. The Proposed Acquisition will create a firm with the incentive and ability to harm rivals in the DPU SmartNIC market using foreclosure strategies. Consequently, the Proposed Acquisition is likely to result in a substantial lessening of competition in the DPU SmartNIC market leading to reduced innovation and more expensive or lower quality products.

75. DPU SmartNICs are a relevant antitrust market. The anticompetitive effects of the Proposed Acquisition alleged in the paragraphs above are also likely to occur in any relevant antitrust market that contains DPU SmartNICs.

III. High-Level Automotive Advanced Driver Assistance System Central Compute SoCs are a Relevant Product Market

76. High-Level Advanced Driver Assistance System ("ADAS") Central Compute SoCs ("High-Level ADAS market") are a relevant product market for evaluating the competitive effects of the Proposed Acquisition. The corresponding relevant geographic market is worldwide.

77. The level of automation in a given vehicle is generally categorized using an industry-wide standard set by SAE International, a professional standard setting organization in the mobility industry. SAE specifies six levels of automation for a given vehicle, ranging from L0 (minimal driver assistance such as lane departure and blind spot warnings) to L5 (a fully automated vehicle driving itself with no restrictions).

78. High-Level ADAS refers to SAE Levels 2 through Level 3, including the industry-recognized "L2+" or "advanced L2" level, which refers to the most advanced L2 capabilities. Within High-Level ADAS, L2+ and L3 are especially important for future competition, as automakers are now developing competing solutions incorporating L2+/L3 features for release in the coming years. High-Level ADAS provides advanced, computerized driving assistance along with various automated features that still require the driver to participate in driving the car (at L2) or to remain ready to take control of the car at a moment's notice (at L3). L2 ADAS typically incorporates features such as using automated lane centering, acceleration, and braking technologies simultaneously, while keeping a human driver in ultimate control of the vehicle. L3 ADAS typically incorporates L2 capabilities as well as higher-level functions capable of location-to-location routing monitored by the automated system when certain traffic conditions are met. While the car is in ultimate control at the L3 level, the driver must be ready to take back control on short notice. High-Level ADAS systems rely on SoCs that

provides the required performance, power efficiency, and programmability to enable the system to run features specific to High-Level ADAS. This complaint refers to SoCs that handle the compute workload necessary to enable the features of High-Level ADAS as "Central Compute SoCs." Market participants may refer to these high-performance ADAS SoCs by a number of names, including "central compute," "brain of the system," and "features" SoCs.

79. High-Level ADAS systems may also incorporate other chips besides the Central Compute SoC. Other chips within High-Level ADAS systems, such as those used for discrete sensor processing (e.g., the Front View Camera), generally do not have to be as high performing or as highly programmable as those used for Central Compute processing. As such, Central Compute SoCs have distinct competitive conditions compared to other chips used for other purposes within High-Level ADAS systems. Therefore, chips for other purposes within High-Level ADAS systems, such as discrete sensor processing, are not included in the relevant market.

80. The Entry-Level (L0/L1) ADAS category is generally characterized by more competitors, lower performance requirements, and lower prices. These Entry-Level systems generally require a lower level of chip performance than High-Level ADAS. Competition for supplying chips for Entry-Level ADAS systems is therefore not included in the relevant market.

81. The Fully Autonomous (L4/L5) category is at an earlier stage of development, and it is not yet technologically viable to implement Fully Autonomous private passenger vehicles on a commercial scale. The Fully Autonomous category is generally characterized by uncertain, though likely higher, performance requirements, additional competitors exclusively focused on developing Fully Autonomous solutions (rather than ADAS), and distinct opportunities wholly separate from High-Level ADAS opportunities. Additionally, the Fully Autonomous category is likely to initially focus on commercial vehicles, such as "robotaxis," rather than private passenger vehicles. In contrast, High-Level ADAS opportunities are generally for private passenger vehicles. Competition for supplying chips for Fully Autonomous (L4/L5) systems is therefore not included in the relevant market.

82. The market for High-Level ADAS Central Compute SoCs consists mainly of competitors selling Arm-based chips. Nvidia competes head-to-head against these other chipmakers who rely on Arm Processor Technology, including Qualcomm and Renesas. These companies all sell High-Level ADAS Central Compute SoCs to automakers or automotive suppliers. [redacted] The only significant chip supplier that Nvidia competes against for High-Level ADAS Central Compute SoCs that does not use Arm Processor Technology for the CPU function in its ADAS SoC is Mobileye, which uses chips based on the MIPS ISA.

IV. <u>The Proposed Acquisition is Likely to Harm Competition for High-Level Automotive Advanced Driver Assistance System Central Compute SoCs</u>

83. The Proposed Acquisition would result in a combined firm with the ability and incentive to engage in foreclosure strategies targeting Nvidia's rivals in the market for High-Level ADAS Central Compute SoCs.

84. After the Proposed Acquisition, the combined firm would have the ability to harm Nvidia's rivals for High-Level ADAS Central Compute SoCs. Arm Processor Technology is a critical input for most competitors in this market. Arm-based SoCs are well-suited to high-performance workloads, while consuming relatively little power, which is important given the limited available power in automobiles. In addition, Arm-based SoCs are highly programmable and support extensive third-party software ecosystems. These are features that many automakers require for their High-Level ADAS Central Compute SoCs.

85. Customers rely on Arm to such a degree that Arm considers itself the [redacted] for L2+ ADAS, and industry participants have acknowledged that the automotive industry is reliant on Arm for ADAS development. Arm has developed a product line of its Processor Technology targeted specifically for automotive end uses, including ADAS, under the "Automotive Enhanced" label, with the goal of [redacted]

86. Other ISAs are not close substitutes for Arm for automotive applications. x86-based CPUs are generally not used for High-Level ADAS. Not even Intel's automotive subsidiary, Mobileye, uses x86-based CPUs for High-Level ADAS. Nor does any significant competitor for High-Level ADAS today use RISC-V-based CPUs. RISC-V-based CPUs generally do not have the level of technical performance that High-Level ADAS system designers require, and, as a less mature architecture, they lack a comparable ecosystem and [redacted] Finally, MIPS, which Intel's Mobileye division uses, is not a viable future architecture for High-Level ADAS chips from other competitors. [redacted] And, the owner of MIPS is expected to phase out the MIPS architecture completely. Thus, while Mobileye currently competes for High Level ADAS Central Compute SoCs with a MIPS-based solution, MIPS is not a viable future architecture for High-Level ADAS for other competitors.

87. The Proposed Acquisition would give the combined firm the ability to foreclose, raise rivals' costs, or otherwise disadvantage rivals in the market for High-Level ADAS Central Compute SoCs through a variety of mechanisms, including by controlling Arm's Processor Technology with respect to its pricing, the terms and timing of access, technological development and features, and provision of services and support, among other mechanisms. Arm already has such abilities today, but it does not have the incentive to use such mechanisms to harm Nvidia's rivals.

88. The Proposed Acquisition would also give the combined firm the incentive to use foreclosure strategies to harm Nvidia's High-Level ADAS Central Compute SoC rivals.

89. Nvidia views winning this growing market as a strategic priority. The market is expected to grow exponentially over the next decade. Projections from a variety of sources, [redacted] indicate that the High-Level ADAS market, while currently small in terms of cars on the road, will grow significantly by 2030. Further, success in this market may provide an installed base that can facilitate successful chip vendors' transition into becoming preferred suppliers for Fully Autonomous vehicle solutions once those become technically feasible for deployment in passenger vehicles.

90. Post-Acquisition, the combined firm would likely have a substantial incentive to engage in foreclosure strategies because profits from additional sales of High-Level ADAS Central Compute SoCs would be higher than any foregone proceeds of licensing Arm Processor Technology to Nvidia's High-Level ADAS rivals.

91. Indeed, within the High-Level ADAS Central Compute SoC market, Nvidia has already competed closely against Arm-based competitors for valuable business opportunities at some of the world's largest automakers. Nvidia will have the incentive to harm Arm-reliant High-Level ADAS rivals as opposed to working collaboratively with them to help them succeed, as Arm does today, because Nvidia competes closely against these rivals for major business opportunities in High-Level ADAS.

92. The Proposed Acquisition will create a firm with the incentive and ability to harm rivals in the High-Level ADAS market using foreclosure strategies. Consequently, the Proposed Acquisition is likely to result in a substantial lessening of competition in the High-Level ADAS market leading to reduced innovation and more expensive or lower quality products.

93. High-Level ADAS Central Compute SoCs are a relevant antitrust market. However, the anticompetitive effects of the Proposed Acquisition alleged in the paragraphs above are likely to occur under any market definition that contains High-Level ADAS Central Compute SoCs.

V. Arm-Based Datacenter CPUs for Cloud Computing Service Providers is a Relevant Product Market

94. Arm-based datacenter CPUs for cloud computing service providers (including customized Arm CPU chips, or "ASICs") is a relevant product market for assessing the effects of the Proposed Transaction. The corresponding relevant geographic market is worldwide.

95. Datacenters consist of large numbers of server computers. Arm-based datacenter CPU technology is a new and emerging technology that leverages Arm's Processor Technology to meet the performance, power efficiency, and customizability needs of modern datacenters providing cloud computing services.

96. "Cloud computing" refers to the increasingly popular computing business model in which large datacenter operators provide computing services remotely and/or directly offer computing resources for rent, as well as provide other support services to customers who can then run applications, host websites, or perform other computing tasks on the leased remote servers—i.e., "the cloud." Cloud service providers ("CSPs") make their computers and associated services available for a price to many different types of computing customers in the general public, including individuals, businesses, and other organizations. CSPs are distinct from enterprise datacenter operators. Enterprise datacenters typically involve businesses, government agencies, or other organizations who operate their own on-premises server computers, while cloud computer service providers typically offer their customers off-premise, remote computing resources and services whose usage the customer can purchase incrementally. In general, cloud computing is growing, and datacenters overall are in transition from the

traditional computing model provided by on-premises enterprise servers to a model in which many computer services are cloud-based.

97. In the past, Arm-based CPUs were perceived as not having powerful enough performance to serve as datacenter server CPUs. As a result, datacenter CPUs have been historically dominated by x86-based products offered by Intel Corporation and AMD.

98. But after many years of research and development, innovation, and investment by Arm and Arm's licensees, datacenter CPUs using Arm Processor Technology have emerged as a distinct and highly attractive product offering capable of powering servers for CSPs. Arm-based CPUs now offer server-class compute performance, while also offering low costs per CPU core, high power efficiency, and a high degree of customizability. These attributes are particularly well-suited to the demands of cloud computing.

99. x86-based datacenter CPUs are more distant competitors to Arm-based datacenter CPUs and are thus properly excluded from the relevant product market. Arm-based datacenter CPUs are distinct from x86-based datacenter CPUs. Because the most fundamental "language" of the CPUs, the Instruction Set Architecture, differs between Arm-based CPUs and x86-based CPUs, these products cannot directly replace one another without significant costs, because they "speak" different "languages." As a result, they also have different associated ecosystems. Arm-based CPUs also typically have greater power efficiency and customizability. Power efficiency is an important product attribute for CSPs because electricity consumption is one of the largest costs for large datacenters and a better environmental footprint is also desirable. Greater customizability in chip design is also valuable to CSPs. Arm-based datacenters CPUs also have distinct prices, typically a significantly lower price per core than relevant x86-based CPUs.

100. Because there are numerous practical distinctions between the needs and capabilities of CSPs and operators of traditional on-premises datacenters at businesses or other organizations, the relevant product market is properly defined as Arm-based datacenter CPUs for CSPs. In particular, the large scale of CSPs' datacenters particularly benefit from the performance, power efficiency, and customizability advantages of Arm-based CPUs. And these CSPs' control over their large-scale datacenters and many computing workloads also makes them well-positioned to overcome the hurdle of ensuring that existing and new software is written to be both compatible and optimized for use with the Arm ISA. Further, Nvidia and other chip suppliers have the ability to easily identify CSP customers, and, through individual negotiations with CSPs, the combined firm would have the ability to engage in price discrimination for CSP customers.

101. Companies designing Arm-based datacenter CPUs today include Marvell, Ampere Computing, and Nvidia. Some CSPs, such as Amazon Web Services, also design their own Arm-based datacenter CPUs.

VI. The Proposed Acquisition Would Harm Competition for Arm-Based Datacenter CPUs for Cloud Computing Service Providers

102. The Proposed Acquisition would result in a combined firm with the ability and incentive to engage in foreclosure strategies targeting Nvidia's rivals in the market for Arm-based datacenter CPUs for CSPs.

103. The Proposed Acquisition would give the combined firm the ability to use foreclosure strategies to disadvantage rivals in the market for Arm-based datacenter CPUs for CSPs through a variety of mechanisms, including by controlling Arm's pricing, the terms and timing of access to its Arm Processor Technology, its technological development and features, and its provision of services and support, among other mechanisms. Arm already has such abilities today, but it does not have the incentive to use such mechanisms to undermine Nvidia's rivals.

104. Arm already has the ability to control whether licensees can produce Arm-based CPUs given its ownership of Arm Processor Technology. But, as with other markets, licensees rely on Arm as a trusted partner to develop and license Processor Technology on a neutral basis and to collaborate and provide support to bring new products to market. Indeed, Arm's support is so important that merely discontinuing it could result in licensees bringing inferior products to market, or licensees' products failing altogether.

105. The Proposed Acquisition would give the combined firm the incentive to use foreclosure strategies to impair the ability of Nvidia's rivals to compete in the market for Arm-based Datacenter CPUs for CSPs.

106. This market is a strategic priority for Nvidia. Nvidia views datacenters as core to its business and future, and espouses the importance of all three "pillars" of computing for datacenters—the CPU, the GPU, and DPU. In April 2021, Nvidia announced its plans to launch an Arm-based datacenter CPU product, called "Grace," which it has touted as the "basic building block of the modern datacenter." Nvidia also seeks to sell customized Arm-based datacenter CPUs to CSPs in the future. Nvidia's announcement of Grace came as multiple CSPs were deploying or planning to deploy Arm-based datacenter CPUs from other sources, [redacted]

107. Nvidia already can provide all three "pillars" of datacenter computing today because it has developed its own Arm-based datacenter CPU, "Grace," and it has the capability to design additional Arm-based CPUs, including custom and semi-custom designs, using its Arm license. Indeed, Nvidia told investors in 2021 that, "With Grace, NVIDIA has a 3-chip strategy with GPU, DPU and now CPU."

108. One of the rationales of the Proposed Acquisition was that the acquisition would [redacted] As Nvidia's CEO wrote to his Board of Directors regarding Arm, [redacted] Further emphasizing the relevance of Arm-based CPUs for CSPs to Nvidia's goals, Nvidia's CEO noted in a December 2020 email that [redacted] But as a

licensee of Arm, Nvidia can already supply such chips on equal footing with Arm's other licensees today. [redacted]

109. Post-Acquisition, the combined firm would likely have a substantial incentive to engage in foreclosure strategies because profits from selling additional Arm-based CPUs to CSPs would be higher than any foregone proceeds of licensing Arm Processor Technology to Nvidia's CPU rivals.

110. The Proposed Acquisition will create a firm with the incentive and ability to harm rivals in the market for Arm-based datacenter CPUs used by CSPs through foreclosure strategies. Consequently, the Proposed Acquisition is likely to result in a substantial lessening of competition in the market for Arm-based datacenter CPUs for CSPs, leading to reduced innovation, and more expensive or lower quality products.

111. Arm-based datacenter CPUs for CSPs is a relevant antitrust market. The anticompetitive effects of the Proposed Acquisition alleged in the paragraphs above are likely to occur in any relevant antitrust market that contains Arm-based datacenter CPUs for CSPs.

VII. The Proposed Acquisition Will Harm Competition By Providing Nvidia with Access to Rivals' Competitively Sensitive Information

112. The Proposed Acquisition will result in an additional substantial lessening of competition due to a critical loss of trust in Arm and its ecosystem. Today, Arm's licensees—including Nvidia's rivals—routinely share competitively sensitive information with Arm. Licensees rely on Arm for support in developing, designing, testing, debugging, troubleshooting, maintaining, and improving their products. As part of this collaborative relationship, Nvidia's rivals routinely share a broad spectrum of competitively sensitive information with Arm. Indeed, effective collaboration between Arm and its licensees often depends on this information sharing because of the competitive importance of innovation, feature competition, and fast time-to-market in the technology industry. Arm licensees are willing to share their competitively sensitive information with Arm because Arm is a neutral partner, not a rival chipmaker.

113. Nvidia's ownership of Arm would fundamentally upend Arm's status as a neutral partner and, at the same time, enable Nvidia to obtain access to its rivals' competitively sensitive information. With the benefit of its rivals' secrets, Nvidia could adjust its activities to undermine competition and harm customers. Recognizing that Nvidia would be able to misuse this otherwise unobtainable information, Nvidia's rivals will likely curtail their highly productive information sharing with Arm and otherwise refrain from making the same procompetitive contributions that they would have absent Nvidia's access to their information. Nvidia's potential misuse of competitively sensitive information and the related chilling effect on collaboration among Arm and its licensees is a further anticompetitive effect of the Proposed Acquisition, and is likely to result in reduced innovation, and more expensive or lower quality products regardless of whether Arm engages in foreclosure strategies.

VIII. The Proposed Acquisition Will Further Harm Innovation By Skewing the Path of Arm Processor Technology Development

114. In addition to the harms to innovation that will result from the foreclosure strategies and the access to competitively sensitive information described above, the Proposed Acquisition is likely to lead to an additional substantial lessening of competition by eliminating innovations that Arm would have pursued but for a conflict with Nvidia's interests.

115. Today, Arm develops its Processor Technology based on input from its licensees and its analysis of the marketplace. Its roadmap for development thus reflects the input of the Arm ecosystem. Absent the transaction, innovation will continue in this direction.

116. But because the transaction would put Nvidia in charge of Arm's Processor Technology roadmap and future development, the merged firm would have less incentive to develop or enable otherwise beneficial new features or innovations if Nvidia determines they are likely to harm Nvidia. The innovation interests of Nvidia are not synonymous with the Arm ecosystem, but the transaction will inevitably skew innovation in the direction of Nvidia's interests. As one Arm executive observed about Nvidia's proposed takeover of Arm, [redacted]

117. Nvidia would have the ability and incentive to ensure that Arm does not develop features or innovations that could threaten its downstream businesses, including its GPU business. For example, in some contexts, CPUs and GPUs compete with each other as alternative processors for handling evolving computing workloads, and Nvidia, for instance, actively markets its GPUs for AI inferencing workloads, which some CPUs, including Arm-based CPUs, also perform. In recent years, Arm expended substantial efforts to add certain built-in AI processing functionality directly into its CPU technology. The development of on-chip AI functions and innovations for CPUs and SoCs that are not tied to Nvidia's proprietary hardware or software is not likely to be in Nvidia's interest.

118. Consequently, innovation is likely to be harmed since Nvidia is unlikely to undertake or permit substantial efforts at attempting CPU innovations that could threaten demand for Nvidia's chips, including GPUs. Post-Acquisition, Nvidia would have the incentive to channel Arm's innovation activities in directions that ensure Arm's CPU technology does not pose any threats to its own chip businesses, including its GPU-centric computing business.

ABSENCE OF ADDITIONAL FACTORS

119. Respondents cannot demonstrate that entry or expansion of products in the Relevant Markets that do not incorporate Arm Processor Technology would be timely, likely, or sufficient to reverse the anticompetitive effects of the Proposed Acquisition.

120. Respondents cannot demonstrate that the Proposed Acquisition would likely generate verifiable, cognizable, merger-specific efficiencies that would reverse the likely competitive harm from the Proposed Acquisition. [redacted] Thus, regardless

of the Proposed Acquisition, Nvidia has and will continue to have access to all Arm Processor Technology, and it can continue to innovate and develop Arm-based products, as it was already planning to do, and as many other companies, including Nvidia's competitors, also do. Indeed, as one Arm executive observed, in response to a report about the potential for the Proposed Acquisition by Nvidia, [redacted]

VIOLATION

COUNT I – ILLEGAL ACQUISITION

121. The allegations above in paragraphs 1 to 120 are incorporated by reference as though fully set forth.

122. The Proposed Acquisition, if consummated, would be likely to lessen competition substantially in interstate trade and commerce in the Relevant Markets throughout the country. If the Proposed Acquisition were to proceed, it would result in substantial harm to competition, including as a result of the combined firm's ability and incentive to disadvantage rival suppliers of downstream products in the Relevant Markets, the chilling effect on innovation induced by the combined firm's access to its rivals' competitively sensitive information supplied to Arm, and the combined firm's ability and incentive to stifle innovations that are unfriendly to its business interests.

123. The Proposed Acquisition violates Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18 and is an unfair method of competition that violates Section 5 of the FTC Act, as amended, 15 U.S.C. § 45.

NOTICE

Notice is hereby given to the Respondents that the ninth day of August, 2022, at 10:00 a.m., is hereby fixed as the time, and the Federal Trade Commission offices at 600 Pennsylvania Avenue, N.W., Room 532, Washington, D.C. 20580, as the place, when and where an evidentiary hearing will be had before an Administrative Law Judge of the Federal Trade Commission, on the charges set forth in this complaint, at which time and place you will have the right under the Federal Trade Commission Act and the Clayton Act to appear and show cause why an order should not be entered requiring you to cease and desist from the violations of law charged in the complaint.

You are notified that the opportunity is afforded you to file with the Commission an answer to this complaint on or before the fourteenth (14th) day after service of it upon you. An answer in which the allegations of the complaint are contested shall contain a concise statement of the facts constituting each ground of defense; and specific admission, denial, or explanation of each fact alleged in the complaint or, if you are without knowledge thereof, a statement to that effect. Allegations of the complaint not thus answered shall be deemed to have been admitted.

If you elect not to contest the allegations of fact set forth in the complaint, the answer shall consist of a statement that you admit all of the material facts to be true. Such an answer shall constitute a waiver of hearings as to the facts alleged in the complaint and, together with the complaint, will provide a record basis on which the Commission shall issue a final decision containing appropriate findings and conclusions and a final order disposing of the proceeding. In such answer, you may, however, reserve the right to submit proposed findings and conclusions under Rule 3.46 of the Commission's Rules of Practice for Adjudicative Proceedings.

Failure to file an answer within the time above provided shall be deemed to constitute a waiver of your right to appear and to contest the allegations of the complaint and shall authorize the Commission, without further notice to you, to find the facts to be as alleged in the complaint and to enter a final decision containing appropriate findings and conclusions, and a final order disposing of the proceeding.

The Administrative Law Judge shall hold a prehearing scheduling conference not later than ten (10) days after the Respondents file their answers. Unless otherwise directed by the Administrative Law Judge, the scheduling conference and further proceedings will take place at the Federal Trade Commission, 600 Pennsylvania Avenue, N.W., Room 532, Washington, D.C. 20580. Rule 3.21(a) requires a meeting of the parties' counsel as early as practicable before the pre-hearing scheduling conference (but in any event no later than five (5) days after the Respondents file their answers). Rule 3.31(b) obligates counsel for each party, within five (5) days of receiving the Respondents' answers, to make certain initial disclosures without awaiting a discovery request.

NOTICE OF CONTEMPLATED RELIEF

Should the Commission conclude from the record developed in any adjudicative proceedings in this matter that the Acquisition challenged in this proceeding violates Section 5 of the Federal Trade Commission Act, as amended, and/or Section 7 of the Clayton Act, as amended, the Commission may order such relief against Respondents as is supported by the record and is necessary and appropriate, including, but not limited to:

1. A prohibition against any transaction between Nvidia and Arm that combines their businesses, except as may be approved by the Commission.

2. If the Acquisition is consummated, divestiture or reconstitution of all associated and necessary assets, in a manner that restores two or more distinct and separate, businesses, with the ability to offer such products and services as Nvidia and Arm were offering and planning to offer prior to the Acquisition.

3. A requirement that, for a period of time, Nvidia and Arm provide prior notice to the Commission of acquisitions, mergers, consolidations, or any other combinations of their businesses with any other company.

4. A requirement to file periodic compliance reports with the Commission.

5. Requiring that Respondents' compliance with the order may be monitored at Respondents' expense by an independent monitor, for a term to be determined by the Commission.

6. Any other relief appropriate to correct or remedy the anticompetitive effects of the Acquisition or to restore Arm as an independent business.

IN WITNESS WHEREOF, the Federal Trade Commission has caused this complaint to be signed by its Secretary and its official seal to be hereto affixed, at Washington, D.C., this second day of December, 2021.

By the Commission.

April J. Tabor
Secretary

SEAL: