July 30, 2024

Assistant Attorney General Jonathan Kanter Department of Justice 950 Pennsylvania Ave, NW Washington, DC 20530

Dear Assistant Attorney General Kanter:

We are writing to express our support of the Department of Justice's reported plans to open an antitrust investigation into Nvidia,¹ the market-leading supplier of chips that provide the technological underpinning for nearly all AI research and development.² Nvidia has made clear that it intends to ride the AI wave as long and as far as it can, and its astonishing dominance in GPU accelerator chips — it now holds an 80% overall global market share in GPU chips³ and a 98% share in the data center market⁴ - puts it in a position to crowd out competitors and set global pricing and the terms of trade. Given the integral part technology plays in contemporary life, this constitutes a dire danger to the open market, and well deserves DOJ scrutiny.

Nvidia's size means it now holds control over the world's computing destiny, which gives it dangerous leverage over the global economy. Its dominance is well established in cloud computing data centers, which are not just the basis of Big Tech's consumer products but underpin every aspect of contemporary society, including the financial system, logistics, healthcare, and defense. In the burgeoning data center subsector that supports the explosive growth of generative AI, which has quickly come to dominate software innovation worldwide, Nvidia products are elementary components⁵ in data servers, which are consuming Nvidia's output as fast as it can be produced.6

The universal deployment of Nvidia's products is now impairing not only innovation and growth but the operation of critical infrastructure that already exists. And unfortunately the company has built that dominance through the same kinds of

² https://www.wsj.com/tech/ai/nvidias-ascent-to-most-valuable-company-has-echoes-of-dot-com-boom-dd836c90

³https://monevweek.com/investments/nvidia-becomes-the-fourth-biggest-company-in-the-world-should-vou-invest 4 https://www.hpcwire.com/2024/06/10/nvidia-shipped-3-76-million-data-center-gpus-in-2023-according-to-study/

https://www.forbes.com/sites/tiriasresearch/2023/05/12/generative-ai-breaks-the-data-center-data-center-infrastructure-and-operating-cost s-projected-to-increase-to-over-76-billion-by-2028/

⁶ <u>https://www.hpcwire.com/2024/06/10/nvidia-shipped-3-76-million-data-center-gpus-in-2023-according-to-study/</u>

anticompetitive tactics that the courts, in response to actions brought by the Department of Justice against other companies, have found to be illegal. It sells chips, networking, and programming software as a package. This aggressively proprietary approach, which is strongly contrary to industry norms about collaboration and interoperability, acts to lock in customers and stifles innovation. Nvidia's anti-competitive practices have raised grave concerns about price-fixing and bundling — concerns that have already led to French antitrust enforcement action⁷ and scrutiny by regulators in the European Union⁸ and the United Kingdom.⁹

Nvidia is the world's chip gatekeeper, determining who receives inventory from a limited supply,¹⁰ setting premium pricing,¹¹ and contractually blocking customers from doing business with competitors¹² — alarming the AI sector, including both small companies (who find their supply choked off) and the Big Tech AI giants. And it has bullied its way into a prominent investment position in AI by using access to its scarce chips as leverage, leading to concerns about financial irregularities in the reporting of revenue.¹³

And despite a Department of Commerce ban on trading with Chinese companies due to national security and human rights concerns,¹⁴ Nvidia has continued to sell chips to Chinese customers and provide them computing access, circumventing the law through behaviors characteristic of a company so large and so dominant that it believes its market behavior is above the law. It delivers access to China via cloud services to circumvent export restrictions.¹⁵ It sells to Chinese shell companies¹⁶ and resellers,¹⁷ and has been selling to UAE and Saudi buyers in alliance with China — prompting a Middle East ban.¹⁸ Its chips have been confirmed to be reaching blacklisted Chinese entities.¹⁹

While competitors to Nvidia's products and services are emerging,²⁰ they are struggling to gain traction.²¹ Nvidia's near-absolute dominance of the market is

- ¹¹ https://www.hpcwire.com/2023/08/17/nvidia-h100-are-550000-gpus-enough-for-this-year/
- ¹² https://www.hardwarezone.com.sg/tech-news-nvidia-s-geforce-partner-program-faces-allegations-anti-consumer-practices

⁴ https://edition.cnn.com/2022/09/01/tech/us-nvidia-amd-chips-china-sales-block-intl-hnk/index.html

- ¹⁶ https://foreignpolicy.com/2023/06/21/china-united-states-semiconductor-chips-sanctions-evasion/
- ¹⁷ https://www.pcmag.com/news/nvidia-ai-chips-are-still-shipping-to-china-despite-us-export-ban ¹⁸ https://www.tomshardware.com/news/us-bans-sales-of-nvidias-h100-a100-gpus-to-middle-east

⁷ <u>https://www.pymnts.com/cpi-posts/french-antitrust-regulator-to-charge-nvidia-over-alleged-anti-competitive-practices/</u>

⁸ https://www.bloomberg.com/news/articles/2023-09-29/eu-begins-early-stage-probe-into-ai-chip-market-abuses-that-nvidia-dominates

⁹ https://www.bloomberg.com/news/articles/2024-02-21/nvidia-adds-uk-to-list-of-governments-scrutinizing-its-business

¹⁰ https://www.nytimes.com/2023/08/21/technology/nvidia-ai-chips-gpu.html

¹³ https://www.theinformation.com/articles/nvidia-accelerates-ai-startup-investments-nears-deal-with-cloud-provider-lambda-labs

¹⁵ https://www.theinformation.com/articles/chinas-nvidia-loophole-how-bytedance-got-the-best-ai-chips-despite-u-s-restrictions

https://foreignpolicy.com/2023/06/21/china-united-states-semiconductor-chips-sanctions-evasion/

²⁰ https://www.hpcwire.com/2024/06/10/nvidia-shipped-3-76-million-data-center-gpus-in-2023-according-to-study/

²¹ https://finance.yahoo.com/news/forget-amd-2024-2-artificial-084000280.html

difficult to counter, and funders are wary of backing its rivals.²² So at the moment, Nvidia is effectively indispensable to the AI and cloud computing sectors, offering opportunities for extractive pricing and market gatekeeping — which the company has used to its advantage to become, as of last month, the world's most valuable public company. Such a company deserves the most aggressive scrutiny that the Department of Justice can bring to bear, and we look forward to the outcomes of your pending investigation.

Sincerely, Demand Progress Education Fund Blue Future Economic Security Project Fair Vote UK Institute for Local Self-Reliance NextGen Competition Open Markets Institute P Street Revolving Door Project The Tech Oversight Project

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https://www.euronews.com/next/2023/09/11/nvidias-dominance-in-ai-chips-is-detering-investment-in-would-be-rival-semiconductor-start