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Issue Brief

From Diffusion to Discretion: Contextualising US Pivot in Compute Control

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Summary

The US policies on AI are undergoing significant shift under the Trump Administration. On the export side, there has been a sudden rescission of the 2025 Framework for Artificial Intelligence Diffusion, announcement of new guidelines for regulation of exports, and consideration of new laws by US legislative bodies to ensure US regulated and exported chips can be safeguarded. Domestically, there are talks of renegotiation of the conditions, or even cancellation, of grants given under the CHIPS and Science Act 2022. These changes have major implications for American leadership in AI and allied industries.

Background

On 13 May 2025, the US Department of Commerce announced an abrupt rescission of the 2025 Framework for Artificial Intelligence Diffusion,[1] mere two days before its compliance requirements were to become effective. The Framework for AI Diffusion, introduced in January 2025 by the Biden-Harris administration in order to regulate global AI market and prevent US-regulated Graphics Processor Units (GPUs) falling to adversarial hands, was deemed 'ill-conceived and counterproductive'. Its features such as worldwide license requirement for certain high-performance advanced computing GPUs was also said to have 'undermined U.S. diplomatic relations with dozens of countries by downgrading them to second-tier status'.[2] Jeffery Kessler, Under Secretary of Commerce for Industry and Security, stated that there would be a 'bold, inclusive strategy to American AI technology with trusted foreign countries around the world, while keeping the technology out of the hands of our adversaries'.[3]

New Policy Directives for AI

While there is no clarity on what the AI strategy referenced by Kessler would look like, new policy developments have emerged as a potential substitute to fulfil the intent of the AI Diffusion Framework. Firstly, the Bureau of Industry and Security (BIS) has announced three 'guidance' with respect to AI export policy on 13 May 2025, viz.

- ***Guidance on Application of General Prohibition 10 (GP10) to People's Republic of China (PRC) Advanced-Computing Integrated Circuits (ICs)***[4] creates restrictions on usage of high compute ICs manufactured in China (with specific example given of Huawei Ascend series), as these chips are used by PRC for military modernization efforts to improve the speed and accuracy of its military decision making, planning, and logistics, as well as of its autonomous military systems, such as those used for cognitive electronic warfare, radar, signals intelligence, and jamming.

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[1] **"Department of Commerce Rescinds Biden-Era Artificial Intelligence Diffusion Rule, Strengthens Chip-Related Export Controls"**, Bureau of Industry and Security, US Government, 13 May 2025; for more details, see Meghna Pradhan, **"Computational Resource Control: The 2025 US AI Framework"**, Issue Brief, Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), 25 February 2025.

[2] **"Department of Commerce Rescinds Biden-Era Artificial Intelligence Diffusion Rule, Strengthens Chip-Related Export Controls'",** n. 1.

[3] Ibid.

[4] **"Guidance on Application of General Prohibition 10 (GP10) to People's Republic of China (PRC) Advanced-Computing Integrated Circuits (ICs)"**, Bureau of Industry and Security, US Government, 13 May 2025.

- ***BIS Policy Statement on Controls that May Apply to Advanced Computing Integrated Circuits and Other Commodities Used to Train AI Models***[5] outlines that exporting, re-exporting, or transferring advanced computing ICs and related commodities for AI training will require licensing, if there is "knowledge" they'll support military-intelligence or development of Weapons of Mass Destruction (WMD) as end use, specifically in any of the Country Group D:5 (including China) or Macau. The licensing obligation includes Infrastructure-as-a-Service providers, in-country transfers, as well as all US persons involved in support activity. Non-compliance to the guidance may lead to civil or criminal proceedings, as well as inclusion in BIS 'Entity list'.
- ***Industry Guidance to Prevent Diversion of Advanced Computing Integrated Circuits***[6] covers guidelines for industries to help them detect and prevent illegal diversion of advanced ICs and related commodities that are subject to export restrictions. It essentially identifies certain transactional and behavioural 'red flags', such as a spike in orders, unknown end-user locations, etc., that may indicate illegal diversions, and recommends enhanced due diligence actions to prevent the same. It also mentions a license requirement under the 'catch-all controls' when there is 'knowledge' that the ICs will be used for a WMD or military intelligence end use/user, particularly in Country Group D:5 (including China) or Macau.

At the same time, a new bill has been introduced by a bipartisan group of eight lawmakers in the U.S. House of Representatives.[7] The Chip Security Act[8] calls for measures that may help US maintain leadership in global AI, while ensuring the AI developments remain concomitant to US interests. It has provisions to prevent chips leak into wrong hands (through measures like GPS or other on-chip beacon embedded in the chip). It also has requirements for a licensed importer of the chips to report in case the chip is diverted to another location or used in another project than intended, or its security features are tampered with. The bill is currently under consideration of the Committee on Foreign Affairs within the House of Representatives. Notably, a similar bill, also called Chip Security Act[9], was introduced in the Senate by Senator Tom Cotton (R-Arkansas) a week prior to the

[5] **"BIS Policy Statement on Controls that May Apply to Advanced Computing Integrated Circuits and Other Commodities Used to Train AI Models"**, Bureau of Industry and Security, 13 May 2025.

[6] **"Industry Guidance to Prevent Diversion of Advanced Computing Integrated Circuits"**, Bureau of Industry and Security, US Government, 13 May 2025.

[7] Stephen Nellis, **"U.S. Lawmakers Introduce Bill to Address AI Chip Smuggling"**, *Reuters*, 15 May 2025.

[8] **"H.R.3447 - Chip Security Act"**.

[9] Short title. Bill officially introduced as 'Bill to Prevent Diversion of Advanced Chips to America's Adversaries and Protect U.S. Product Integrity'. See **"Cotton Introduces Bill to Prevent Diversion of Advanced Chips to America's Adversaries and Protect U.S. Product Integrity"**, Press Release, Tom Cotton—Senator for Arkansas, 9 May 2025.

one introduced in the House of Representatives, and is now under consideration of the Senate Committee on Banking, Housing, and Urban Affairs.

Parallel to these new and tentative steps towards regulation of export of capabilities that build AI, the Trump administration has also sought to alter the Biden-Harris approach towards nurturing domestic AI capabilities. This is visible in its antagonism towards the CHIPS and Science Act, 2022.[10] Trump has been extremely critical of the Act, arguing that the companies dealing in high-end chip production and availing these grants do not lack in funds to establish their production line in the US, but required an 'incentive' for the same (referring to the grants in the CHIPS and Science Act). He had earlier threatened to end the CHIPS and Science Act, and instead impose high tariffs on foreign manufacturing of chips and semiconductors.[11] More recently, the Trump administration has taken a more targeted approach instead of cancelling the Act wholesale, the grants provided under it are being renegotiated with tighter terms and stronger performance demands.[12]

Taken together, these actions denote three major trends. One, the US is seeking to consolidate its leadership in chip and semiconductor industry, and by extension, AI development, by enforcing strict performance-based industrial policy that anchors technology development on American soil while maximising private and public investment. Second, there is a push for plugging perceived leakages that may enable the countries US considers adversarial (particularly China) to gain leverage within its market, instead of creating country-based guardrails. Lastly, instead of hedging against countries by blocking them behind a tier system, the US seems to be pivoting to an intel-driven model, wherein countries may have relatively (and theoretically) unfettered access to compute, as long as steps are taken to prevent or report any diversion or risk to the hardware.

Implications and Conclusion

While the removal of AI diffusion framework may streamline the AI market and prevent international relations to be shadowed by quota requirements for the US, the abrupt nature of rescission creates significant uncertainty about future regulatory direction. Given that a future policy has been hinted during the announcement, there

[10] The CHIPS and Science Act, passed in August 2022, aims to 'catalyze investments in domestic semiconductor manufacturing capacity'. It also attempts to foster R&D and commercialisation in cutting-edge technologies that include quantum computing, AI, nanotech, among others, through grants, tax credits, and subsidies. The law is designed to create regional centres of high-end STEM research within the US while raising diversity in STEM workforce. See Justin Badlam et al., **"The CHIPS and Science Act: Here's What's in It"**, McKinsey, 4 October 2022.

[11] Sarah Parvini, **"What Changes to the CHIPS Act Could Mean for AI Growth and Consumers"**, *AP News*, 16 February 2025.

[12] **"Trump Renegotiating Biden-era Chips Act Grants, Lutnick Says"**, *Reuters*, 5 June 2025.

may now exist a limbo in approach for both the US and their potential importers of compute. It is also possible that while the new regulations may not institutionalise tier-based system, they will likely retain pre-conditions that effectively create trade spheres based on their relationship with the US, the confidence the US may share on the country's capability to regulate and monitor chip usage, or US interest in keeping China at bay in areas of its geopolitical interest and influence. In an attempt to shore up West Asian allies and ward off growing Chinese influence, for instance, Trump announced a series of deals with the UAE and Saudi Arabia during his May 2025 tour of the region, allowing them import of massive number of advanced AI chips (immediately after scrapping the AI Diffusion Framework).[13]

Most companies including NVIDIA had openly expressed dissatisfaction against the AI Diffusion Framework, and have supported this repeal as it may open new markets at a larger scale. This is evidenced by the AI deal between the US and Saudi Arabia which allows NVIDIA a sale of 18,000 of its advanced GPUs. However, the new BIS guidelines and Chip Security Act requirements, with their due diligence requirements, End-User and End Use restrictions, etc., may ultimately lead to an 'onerous and uncertain process'.[14] Ultimately, these changes will further increase compliance burdens and operational costs for all participants (provided they are technically feasible in first place), which would make it costlier to import from the US.

Changes in grant from CHIPS and Science Act present their own set of challenges. Notably, without governmental support, the cost of establishing a chip manufacturing unit in the US is 30 per cent costlier compared to the rest of the world,[15] which made steps such as the CHIPS and Science Act indubitably critical for semiconductor growth within the country.[16] Yet, companies that have committed substantial resources to domestic production facilities based on previous policy frameworks may get hamstringed into achieving rapid returns on their investments. This is problematic especially since a capital-heavy industry such as semiconductor and chip manufacturing often rely on long-term investment horizons and predictable regulatory environments, which is antithetical to policy flip-flops posed by the re-negotiations and tariff threats.

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[13] Notably, this would make Gulf the most significant proliferation of AI capabilities outside the United States and China. See Michael Froman, **"Trump's AI Gamble in the Gulf Reshapes U.S. Tech Strategy"**, Council on Foreign Relations, 20 June 2025.

[14] Thea Kendler, Tamer A. Soliman, Aiysha Hussain and Nicholas T. Jackson, **"US Commerce Department Announces New Export Compliance Expectations Related to Artificial Intelligence"**, *Mayer|Brown*, 16 May 2025.

[15] Emily Peck, **"Can the U.S. Bring Chip Manufacturing Home?"**, *Slate*, 10 January 2023.

[16] By August 2024, approx. 40 per cent of the globally planned fabricators of advanced chips were to be built in the US, indicating a positive investment outlook. For details see Michelle Adams, **"Why Are Semiconductor Companies Shifting to the United States?"**, *Z2Data*, 5 August 2024.

Combined with the aforementioned newer requirements regarding installing monitoring provisions within the chip, the costs are invariably going to be driven higher, which may lead to a slowdown in expansion of manufacturing in the US. For instance, Intel has been facing project delays in operationalising microchip processing plants, particularly in New Albany, Ohio, primarily due to financial issues. Prior to the CHIPS and Science Act, the company had undergone significant lay-offs, particularly of US fabrication plant staff, owing to financial issues.[17] The sanctioned CHIPS Act grants (worth US$ 7.865 billion total) for the company was, therefore, important to shore up finances for new projects. Yet, the grants began disbursing only recently, pushing the project opening from 2025 to 2030 or 2031.[18] It can be assumed that the situation will only be exacerbated, if the grant requirements are tightened further. Beyond this, companies may seek to diversify their manufacturing lines to countries that provide favourable conditions, further hampering expansion within the US.

In conclusion, the abrupt rescission of the AI Diffusion Framework, paired with new BIS guidelines and a performance-bound overhaul of CHIPS Act awards, marks a significant shift in US approach to AI policy. While US seems to be moving from an export system based on rigid, tiered-country-based quotas to a monitoring and intelligence based model, there is still a lot of uncertainty around the future policy direction. This uncertainty is accented by the Trump administration's decision to alter the terms of the incentives provided to companies through CHIPS and Science Act. Although this approach seeks to prioritise national interest in export regulation, as well as sustain domestic innovation, it has introduced new compliance burdens and funding uncertainties that will affect not just the US itself, but the future of AI development globally.

[17] Dan Robinson, **"Intel Reportedly Chips Away at Fab Workforce – But Hey, Maybe There's a Tax Break Coming"**, *The Register*, 17 June 2025.

[18] Max Filby, **"Intel Delays $28 billion Ohio Chip Factory in New Albany Again, to 2030 or 2031"**, *The Columbus Dispatch*, 28 February 2025.

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