
US CHIPS ACT & NEW EXPORT CONTROL

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BACKGROUND

Semiconductors are indispensable in electronic devices and modern age technologies such as data analytics, robotics, AI and machine learning. Semiconductors are at the heart of economic growth, security and technology innovation. As described by a US think tank, “*whoever controls the design and production of these microchips, they will set the course for the 21st century*” (see: [Link 1](#)).

For decades, the US has been the leader in the semiconductor industry. According to the Semiconductor Industry Association, the US semiconductor industry consistently accounts for 45% to 50% of global revenues. However, the share of global semiconductor manufacturing located in the US has plummeted in recent years, down from 37% in 1990 to 12% in 2019 (see: [Link 2](#)).

China Mainland has long been a net importer of semiconductors, relying heavily on foreign, notably US, manufacturers. In an attempt to achieve self-sufficiency in semiconductor production and advance China Mainland’s own innovation, China Mainland has rolled out some ambiguous initiatives to promote and fund the development of China Mainland’s technology in critical sectors, including the “*National Guidelines for Development and Promotion of the Integrated Circuit (IC) Industry*” in 2014, and a year later the “*Made in China 2025*” (“*MIC 2025*”) initiative. At the core of these initiatives is to promote and fund the development of China’s technology in critical sectors, with semiconductors as the first priority segment. Some estimate that the Chinese government’s funding commitment for MIC 2025 at US\$300 billion (See: [Link 3](#)).

China Mainland’s drive towards self-sufficiency received push back from the United States. The MIC 2025 initiative was thought of as transgressing international trade rules by giving state subsidies to China Mainland’s tech industry (See: [Link 4](#)). Commentators generally believe that it is these initiatives, along with the issue of the China Mainland-US trade deficit, that resulted in the Trump policy of trade and technology sanctions towards China Mainland, which is largely continued by the Biden administration.

Two of the latest sanctions/ trade restriction measures specifically targeting at China Mainland’s semiconductor industry are the US CHIPS Act and the new export control rules.

US CHIPS ACT

The US CHIPS Act stands for the Creating Helpful Incentives to Produce Semiconductors and Science Act of 2022, which was signed into law in the US on 9 August 2022.

The CHIPS Act provides roughly US\$280 billion in new funding to boost domestic research and manufacturing capacity of semiconductors. The majority (US\$200 billion) is for scientific R&D and commercialization. Some US\$52.7 billion is for semiconductor manufacturing, R&D, and workforce development, with another US\$24 billion worth of tax credits for chip production. There is US\$3 billion for programs aimed at leading-edge technology and wireless supply chains.

THE CHIPS ACT'S IMPACT FOR THE PRC?

The CHIPS Act aims at countering China Mainland's semiconductor industry. Specifically, Section 103 of the CHIPS Act provides,

Section 103—Semiconductor incentives

(C) REQUIRED AGREEMENT –

(i) IN GENERAL – On or before the date on which the Secretary awards Federal financial assistance to a covered entity under this section, the covered entity shall enter into an agreement with the Secretary specifying that, during the 10-year period beginning on the date of the award, subject to clause (ii), the covered entity may not engage in any significant transaction, as defined in the agreement, involving the material expansion of semiconductor manufacturing capacity in the People's Republic of China or any other foreign country of concern.

Importantly, Section 103 does not merely prohibit the recipient from using the funds received under the CHIPS Act to invest in manufacturing semiconductors in China Mainland; it prohibits the fund recipient from engaging in any significant transaction “involving the material expansion of semiconductor manufacturing” in China Mainland.

In practical terms, the CHIPS Act is designed to attract semiconductor talent and investments into the US, while trying to stop global chip giants from expanding their capacity in China if they use US funding.

It is noteworthy that it is not stipulated in the US CHIPS Act whether the prohibition against significant transactions involving the material expansion of semiconductor manufacturing is applicable to Hong Kong. Commentators expect that this issue will be clearer when the US government begins examining and approving applications for financial assistance under the CHIPS Act after February 2023 (See: [Link 5](#)).

NEW US EXPORT CONTROLS

On 7 October 2022, the US Commerce Department's Bureau of Industry and Security (“BIS”) announced an interim final rule titled “Implementation of Additional Export Controls: Certain Advanced Computing and Semiconductor

Manufacturing Items; Supercomputer and Semiconductor End Use; Entity List Modifications” (“the Rule”). The Rule modifies the Export Administration Regulations (“EAR”) to impose significant new export restrictions aimed at restricting China Mainland's ability to obtain advanced computing semiconductor chips, develop and maintain supercomputers, and manufacture advanced semiconductors.

Specifically, the Rule aims to achieve its goals by:-

1. adding certain advanced and high-performance computing chips (and computer commodities that contain such chips) to the Commerce Control List (CCL);
2. adding new license requirements for items destined for a supercomputer or semiconductor development or production end use in the PRC;
3. expanding the scope of the EAR over certain foreign-produced advanced computing items and foreign produced items for supercomputer end uses;
4. expanding the scope of foreign-produced items subject to license requirements to twenty-eight existing entities on the Entity List that are located in the PRC;
5. adding certain semiconductor manufacturing equipment and related items to the CCL;
6. adding new license requirements for items destined for semiconductor fabrication facilities in the PRC that produce certain advanced chips. Licenses for facilities owned by PRC entities will face a “presumption of denial,” and facilities owned by multinationals will be decided on a case-by-case basis;
7. restricting the ability of U.S. persons to support the development, or production, of integrated circuits at certain PRC-located semiconductor fabrication facilities without a license;
8. adding new license requirements to export items to develop or produce semiconductor manufacturing equipment and related items; and;
9. establishing a Temporary General License to minimize the short-term impact on the semiconductor supply chain by allowing specific, limited manufacturing activities related to items destined for use outside the PRC.

In December 2020, BIS published a regulatory amendment confirming that exports, re-exports and transfers (in-country) to Hong Kong are treated as transactions destined for China Mainland for purposes of the US export control system. Items subject to the EAR that require a license for export or reexport to China Mainland also require a license when destined to Hong Kong.

Accordingly, Hong Kong has the same license requirements as China Mainland and is therefore subject to the requirements of the Rule. Macau was previously treated by BIS as a distinct destination from China Mainland and therefore not subject to the license requirements specific to China Mainland (See: [Link 6](#)). However, BIS published an amendment to the Rule on 18 January 2023 adding the same controls implemented on China Mainland in the Rule to Macau. The effective date of the amendment is 17 January 2023. For more details, please refer to [Link 7](#).

RECOMMENDATIONS FOR KWM CLIENTS

PRC Tech Clients

- *Set up a US technical software database to identify the US technologies and software that are used by the enterprise which are subject to the US sanctions/ restrictions;*
- *Consider alternative sources of semiconductors and semiconductor production equipment, such as Japan, Germany and the Netherlands;*
- *Recruit non-US experts to support the R&D of advanced computing and semiconductor items;*
- *Make maximum use of technology “work-arounds” or previous generation technology*
- *Devote more resources to domestic R&D;*
- *Look out for opportunities to acquire foreign companies which possess advanced semiconductor technology and know-how; and*
- *Get ready for more control in case the US adopts similar restrictions on other high-tech industries such as quantum computing, high-end biotechnology and artificial intelligence software.*

US Tech Clients

- *Evaluate the eligibility and terms and conditions for obtaining the financial assistance under the CHIPS Act;*
- *Evaluate whether the incentives (financial assistance) under the CHIPS Act will be enough to overcome the financial disruptions caused by the New Rule (such as loss of sales and market share resulting from the new export control rules);*
- *Establish export control and economic sanctions compliance systems; and*
- *Monitor and get ready for retaliatory measures that may be imposed by China (e.g., refusal to approve foreign mergers and acquisitions; trade controls of critical inputs such as rare earth elements).*

If you have any questions or comments, please get in touch with any of your KWM contacts below.

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In this article:

- *the Mainland of China is described as “China Mainland”; Hong Kong SAR is described as “Hong Kong”; Macau SAR is described as “Macau”.*
- *save as used in the US Legislation, “the PRC” connotes China Mainland, Hong Kong SAR and Macau SAR.*





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