

Legal Commentary

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Brief Analysis of China's Technology Export Management System— from the Perspective of Revising the Catalogue of Technologies Subject to Export Bans and Restrictions

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On the evening of August 28, 2020, the Ministry of Commerce and the Ministry of Science and Technology jointly published the revised *Catalogue of Technologies Subject to Export Bans and Restrictions*¹ (the “**Catalogue**”), and answered reports’ questions regarding the Catalogue², which has drawn heated discussion among business circles. To provide our perspective on this issue, we summarize and analyze in this article key issues related to technology export administration rules in China by referring to the Catalogue. We then attempt to compare relevant provisions of the Catalogue to similar industry concerns over restrictions on cross-border data transfers.

The revised Catalogue makes changes regarding high technologies, including drones, 3-D printing, autonomous driving, artificial intelligence, and computer software—areas in which China has grown in strength in recent years. The Catalogue provides that technology exports are governed by the *Regulations of the People's Republic of China on the Administration of Technology Import and Export* (the “**Regulations**”), which stipulate only a general definition of technology export and do not prescribe specific implementing rules. Although business circles generally consider the Regulations apply primarily to Chinese parties that transfer technologies overseas, there is another literal interpretation of application scope of the Regulations, that is, they govern the cross-border transfer of technologies created in China. Furthermore, in addition to the transfer and licensing of technologies, the export of technologies involved in cross-border transactions are also subject to technology export reviews, such as in cross-border investment, financing, and mergers and acquisitions. However, under the current technology export control rules, technology export reviews in such cross-border transactions face many challenges in practice, because of the complexity of technology transfers, greater uncertainty in such cases, and because many issues still await further regulatory clarification.

¹ The official website of the Ministry of Commerce: Adjustment and Promulgation of the Catalogue of Technologies Prohibited and Restricted from Export by China by the Ministry of Commerce and the Ministry of Science and Technology (<http://www.mofcom.gov.cn/article/news/202008/20200802996694.shtml>).

² Official website of the Ministry of Commerce: Person in Charge of the Department of Trade in Services of the Ministry of Commerce Answering Reporters’ Questions on the Adjustment of Catalogue of Technologies Prohibited and Restricted from Export by China (<http://www.mofcom.gov.cn/article/news/202008/20200802996696.shtml>).

In addition, similarities exist with respect to the structures of the technology export control system and the cross-border data transfer system (still being formulated). For example, both stipulate classified protection of technologies/data and require review prior to the transfer of specific types of subject matter. Note that there may exist overlap in classification of specific technical fields under these two systems. Parties should also pay attention to differences in the focus of review and specific review rules when applying these two systems so as to avoid issues arising in practice due to links between the two systems.

In addition, China remains at the early stages of formulating technology export controls and is far behind the United States, which has already established a systematic administrative enforcement system in relation to technology export controls. While the relevant systems have begun to take shape in China through the establishment of the “unreliable entities list” and “transaction-restricted countries list,” the implementation of such systems requires the cooperation of legislative and enforcement departments.

The Catalogue stipulates revisions mainly involving high-tech industries; relevant export review rules remain to be further clarified

I Revisions mainly involve high-tech industries such as drones, 3-D printing, autonomous driving, artificial intelligence and computer software

The revisions to the Catalogue involve a total of 53 technical items, which were finalized upon consultation with relevant departments, industry associations, industry academic circles, and the public:

1. Removed four technical items from items prohibited from export, including microbial fertilizer technology, caffeine production technology, riboflavin production technology, and vitamin fermentation technology.
2. Removed five technical items from items prohibited from export, including Newcastle disease vaccine technology, natural medicine production technology, functional polymer material preparation and processing technology, chemical synthesis and semi-synthetic medicine production technology, and information security firewall software technology.
3. Added 23 technical items restricted from export, including artificial breeding technology of agricultural wild plants, cashmere goat breeding and breed breeding technology, space material production technology, large-scale high-speed wind tunnel design and construction technology, aerospace bearing technology, and laser technology.
4. Revised the control points and technical parameters of 21 technical items, including but not limited to crop breeding technology, aquatic germplasm breeding technology, chemical raw material production technology, biological pesticide production technology, spacecraft measurement and control technology, space data transmission technology, map-making technology, information processing technology, vacuum technology, and other fields.

Based upon the revised content, we can observe that China has gradually strengthened export controls over high-tech industries including drones, 3-D printing, autonomous driving, sensors, artificial intelligence, pharmaceutical manufacturing, telecommunications equipment, and computer software.

Revising the Catalogue was not an impulsive action of the regulatory authorities, but rather a long-planned project. As early as 2018, relevant departments had begun to solicit public comments on revising the Catalogue, and the Ministry of Commerce and the Ministry of Science and Technology finally promulgated the Catalogue following repeated deliberations and by considering development trends in the international environment. The market's strong reaction reflects the demand for the revising the Catalogue. We should, however, also avoid unduly interpreting the Catalogue in light of the current sensitive international political and business environment.

In addition, promulgation of the Catalogue marks only the beginning of adjustments to the technology export control system. The Ministry of Commerce and the Ministry of Science and Technology continue to advance revising the Catalogue in an orderly manner and may further reduce restricted items in the Catalogue to allow the market to play a bigger role. Furthermore, we should also pay attention to impact produced by changes in the international environment on the revising of the Catalogue.

II Applicable subject matter of export-restricted technologies for review

According to Article 2 of the Regulations: *“the import and export of technology refers to transfers of technology from outside the People’s Republic of China into the territory of the People’s Republic of China, or vice versa, by way of trade, investment, or economic and technological cooperation. The transfer of technology referenced in the preceding paragraph include the transfer of patent rights, the transfer of patent application rights, patent implementation license, the transfer of technology secrets, technical services, and technical transfer in other manners.”*

The person in charge of the Department of Trade in Services of the Ministry of Commerce, in answering reporters’ questions regarding the Catalogue, mentioned that: *“Transfers of technology beyond the territory of the People’s Republic of China, whether by way of trade or investment, etc., must be conducted in accordance with the Regulations.”* According to Article 31 of the Regulations: *“Technologies restricted from export shall be subject to license for export; without a license, no export-restricted technologies shall be exported.”*

The Regulations stipulate a relatively broad applicable scope of technologies subject to export restrictions. Business circles have tended to hold that the Regulations apply to the transfer by Chinese entities of export-restricted technology to foreign entities, which requires prior approval of the local department of commerce. However, the restrictions may also be literally interpreted to apply to transfers abroad of technologies generated within China, whether such technologies are generated by a foreign entity or a Chinese entity, which would all require prior approval of the local department of commerce. We await the regulatory authorities to further clarify whether, in practice, such technology transfers will be subject to supervision and the strength of the regulations.

III Further clarification awaited on detailed rules for export reviews of restricted technologies

If a transaction solely involves the transfer of export-restricted technologies *per se*, the rules have been clarified such that the relevant parties must submit an application and undergo a technology export review prior to the transfer (such as the transfer of patent rights, technology secrets, or license

contracts).

However, the Regulations do not specify whether prior approval is required for transactions which partly involve the export of export-restricted technologies, such as cross-border mergers and acquisitions, investment, and financing. In practice, it is common for technology transfers to separate the technologies from the other parts of a transaction. That is to say, the technology transfers usually are handled separately after reaching a preliminary transaction agreement in the transactions relating to the cross-border mergers and acquisitions, investment, and financing. If a technology export cannot be completed due to any reasons, the parties will negotiate to determine whether to proceed with the transaction or adjust the transaction consideration according to the specific circumstances.

In practice, it is difficult to reach consensus on the scope of technologies to be exported before substantive transaction negotiations commence if the technology export itself is not substantial to the actual negotiations (regarding investment, financing, and mergers and acquisitions). To get the prior permission of the entire transaction is quite difficult and the variation of transaction will further need to re-apply the permission of relevant technologies export, and thus will result in cumbersome procedures and the wasting of resources. In such cases, it is common practice to apply for an export license for the relevant technologies included in the transaction after reaching the final agreement. It remains to be seen in practice how the regulatory authorities will deal with these circumstances and their requirements.

IV Procedures for the export review of export-restricted technologies

Since 2007, the Ministry of Commerce has delegated the authorization to grant license for import and export of export-restricted technologies to the competent commerce administrations of provinces, autonomous regions, and municipalities directly under the central government. According to the Regulations, the export review of export-restricted technologies mainly involve two aspects, i.e. trade review and technical review. The specific review process is as follows:

1. An enterprise planning to export export-restricted technologies should complete an *Application for Export of Technologies Subject to China Export Restrictions* before entering into substantive negotiations regarding the export and file the application with the provincial commerce department. The parties should go through review procedures in advance for the export of secret information if the technologies to be exported involve state secrets.
2. After receiving a technology export application, the competent commerce department will review the application, together with the competent department of science and technology, and make a decision indicating whether to approve the application within 30 business days from the date of receipt of the application, and to those whose application for technology export has been approved shall issue a *People's Republic of China Letter of Intent for Granting Technology Export License*. The applicant may engage in substantive negotiations and sign a technology export contract only after obtaining a letter of intent.
3. The applicant must apply for a *Technology Export License of the People's Republic of China* after executing a technology export contract. The competent commerce department will review the

authenticity of the technology export contract and shall make a decision to indicate whether it approves or rejects the technology export within 15 business days from the date of receipt of the relevant application. If the technology export is approved, the applicant will be issued a *Technology Export License of the People's Republic of China*. The technology export contract will then take effect from the date of issue of the technology export license.

Comparing the technology export control and cross-border data transfer systems

Similar to the technology export review system, China has been actively exploring the establishment of a security assessment system for cross-border data transfers.

According to Article 37 of the current *Cybersecurity Law of the People's Republic of China*, operators of critical information infrastructure must store personal information and important data within the territory of China and undertake security assessment procedures if it is necessary to transfer such data cross-border. Subsequently, Chinese authorities have indicated their intent to extend the security assessment obligations to all network operators and have proposed specific review procedures and key review points in the *Measures for Security Assessment of Cross-border Transfer of Personal Information and Important Data (Draft for Comment)*, the *Measures for Security Assessment of Cross-border Transfer of Personal Information (Draft for Comment)*, and the *Information Security Technology - Guidelines for Data Cross-border Transfer Security Assessment (Draft for Comment)*, etc. A draft law on data security issued in July of this year indicates that China intends to establish a data security review system, conduct national security reviews of data activities that affect or may affect national security, and implement export controls on data in relation to the performance of international obligations and the safeguarding of national security.

Technology export controls and data export controls are similar in many aspects including regulatory views, procedural timing, focus of review and validity of assessment results, although the focus of technology export control lies in the technology *per se*, while focuses of data export security review lies in the ownership, circulation or controller of the data. In the following, we will compare the two systems from the following aspects:

1. **Regulatory views:** The systems provide classified protection of either data or technology. At present, cross-border data transfer security assessments apply only to personal information which concerns the legitimate interests of individuals and to important data which concern the overall interests of the State and society.
2. **Procedural timing:** Cross-border data transfer security assessments commence after the data transferor and the data receiver sign a data transfer contract and before the data transfer actually takes place. For technology export reviews, the technology exporter must first obtain a *Letter of Intent for Granting Technology Export License*, who then signs a technology export contract and finally applies for an export license with the relevant authorities by submitting the technology export contract and other materials.
3. **Focus of review:** Personal information cross-border transfer security assessments mainly focus on whether such transfers harm the rights and interests of personal information subjects. Meanwhile, important data cross-border transfer security assessments focus on whether the transfer harms

national security, social public interests, or related industrial policies, etc.

4. **Validity of assessment results:** Within a certain period of time after completion of the data export security review (e.g., two years for personal information cross-border transfers), the parties need not again undertake the cross-border assessment process if they intend to transfer data to the same receiver multiple times or continuously and there is no change to the destination jurisdiction, type of data transferred, or duration of storage. In terms of technology export reviews, a *Letter of Intent for Granting Technology Export License* remains valid for three years and the parties need to apply for a new export license if a change occurs to the main content of the technology transfer contract.

The comparison of these two systems is as follows:

Items	Data Cross-border Security Assessments	Personal Information Cross-border Security Assessments	Technology Exports
Governing laws and regulations	<i>Measures for Security Assessment of Cross-border Transfer of Personal Information and Important Data (Draft for Comment, 2017).</i>	<i>Measures for Security Assessment of Cross-border Transfer of Personal Information (Draft for Comment, 2019).</i>	<i>Regulations of the People's Republic of China on Administration of Technology Import and Export (2019).</i> <i>Measures for Administration of Technologies Prohibited and Restricted from Export (2009).</i>
Definition of cross-border transfer /export	According to <i>Information Security Technology - Guidelines for Data Cross-border Transfer Security Assessment (Draft for Comment)</i> : cross-border data transfers refer to the activities of providing data to foreign institutions and entities within China but which are not under the legal jurisdiction of China or are not registered in the country; data which has not been transferred to a location outside of the country, but is accessed by overseas organizations, institutions, or individuals (except for public information and website access); the internal data of a network operator group is transferred from China to the outside which involve data generated during domestic operations.		Transfers of technology from within China to abroad through manners including trade, investment, or economic and technical cooperation.
Regulatory authority	Cyberspace administration, industry administration, or regulatory department.	Provincial cyberspace administration.	Commerce department, science and technology department.
Governing objects	Personal information and important data.	Personal information.	Export-restricted technology.
Process launch time	Self-assessment: cross-border data transfers that meet specific conditions must be filed with the competent industry or supervisory department.	Apply to the regulatory authority for assessment after the execution of a contract; file a report on the personal information export with the regulatory authority at the end of each year.	Apply for a technology export license with the provincial-level commercial department first; then sign a technology export contract after obtaining the <i>Letter of Intent for Granting Technology Export License</i>; then apply for a technology

Items	Data Cross-border Security Assessments	Personal Information Cross-border Security Assessments	Technology Exports
			export license with the commerce department.
Focus of review	<ul style="list-style-type: none"> ■ Consent of personal information subjects and the impact on the personal rights and interests of those subjects. ■ Impact on National security and social public interest. 	<ul style="list-style-type: none"> ■ National laws, regulations, and policies. ■ Impact on the legal rights and interests of the personal information subjects. ■ Whether the contract can be effectively executed. ■ The operating status of the network operator or information receiver. 	<ul style="list-style-type: none"> ■ Chinese foreign trade policy, industrial export policy, and Chinese foreign commitments. ■ National security, science and technology development policy, industrial technology policy, etc.
Time for the review process	60 business days.	15 business days, may be extended depending upon the specific circumstances.	30 business days is required for issuance of the <i>Letter of Intent for Granting Technology Export License</i> , 15 business days for issuance of Technology Export License.
Validity of assessments	Carry out security assessments at least once a year ; security assessments should be re-conducted timely if the data receiver changes, or any aspects of the data cross-border transfer undergoes substantial change.	No need to repeat security assessments if personal information is transferred to the same receiver multiple times or continuously; assessments shall be conducted every two years or re-conducted in any aspects of the data cross-border transfer undergoes any substantial changes.	The <i>Letter of Intent for Granting Technology Export License</i> shall stay valid for three years. Parties need to re-apply for a technology export license if the main contents of the technology transfer contract changes.

In practice, there may exist many overlapping areas between the data cross-border transfer and technology export control systems.

For example, several technologies restricted from export newly added to the Catalogue are essential for data transmission, encryption and applications, including “item 21: personalized information push service technology based on data analysis”, “item 48: system and data rapid recovery technology”, and “item 51: database system security enhancement technology.” Some companies may provide original data to the foreign parties when exporting technical capabilities to such foreign parties. In such cases, the data cross-border transfer would be subject to review under both systems, if the original data provided involves citizens’ personal information (such as biometric information) or important data (such as data related to state secrets).

From the above table, we can see there are many differences between the two systems in terms of procedural timing, the time required for review, and the validity of assessment results. We recommend

enterprises plan and make preparations correspondingly, and to adjust their processes depending upon how regulators may connect these two systems in the future.

Cooperation between legislative and administrative departments is required from designing to implementing technology export management systems in China

The United States implements strict control over technology exports and has developed a relatively sound and complex technology export control system. Compared with the United States, China started later in the exploration of its export control system and still has shortcomings, such as a relatively low degree of lawmaking and lack of administrative measures.

However, China has increased its work on technology export control legislation. The *Export Control Law of the People's Republic of China*, which is still being formulated, specifies a list management system, country-specific policies, and temporary control systems. After its promulgation, the law will greatly advance China's steps toward establishing a sound technology export management system.

Compared with the United States, which has developed a complex export control legislation and administrative enforcement system, China still remains at the system design stage regarding technology export controls. Although China is promulgating an "unreliable entities list" and "transaction-restricted countries list," the implementation of specific systems will require the cooperation among legislative, administrative, and law enforcement departments.

Items	China	United States
List management system	China has a Catalogue which lists items and technologies restricted from export.	The United States has three export control lists, the Commerce Control List (CCL), the United States Munitions List (USML), and the Nuclear Regulatory Commission Controls (NRCC).
Transaction-restricted countries	The existing export control system does not restrict countries for transactions. The Export Control Law stipulates a list of transaction-restricted countries.	The United States divides export destination countries into five groups—A, B, C, D, and E—according to the size of the proliferation risk and the degree of security concerns involved in technology transfers.
Blacklist system	China has not yet established a systematic and complete blacklist system. On May 31, 2019, the Ministry of Commerce announced that it would establish an unreliable entities list which, however, is not solely applicable to technology exports.	The United States has established eight lists, including an exclusion list and an entity list .
License procedure	The parties submit an application for review and go through other procedures before they intend to export export-restricted technologies as listed in the Catalogue.	Under the U.S. export control system, the exporter submits an application to the relevant regulatory agency and obtains a license in advance before exporting the relevant technologies.

Summary

China's technology export management system is not new, it has continued to develop and improve over

the years. The revisions to the Catalogue will inevitably cause widespread social concern and influence as the proportion of technology exports gradually increases with China's promotion of technological development and economic transformation (in 2019, the value of Chinese technology export contracts basically equaled the value of its technology import contracts), and the international trade environment has become more and more complex. Relevant departments will be tested on how to ensure the implementation of the revised Catalogue and to balance national, public, and corporate interests.

Important Announcement

This Legal Commentary has been prepared for clients and professional associates of Han Kun Law Offices. Whilst every effort has been made to ensure accuracy, no responsibility can be accepted for errors and omissions, however caused. The information contained in this publication should not be relied on as legal advice and should not be regarded as a substitute for detailed advice in individual cases.

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