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## China's Data as a Fifth Market Production Factor – an Asset on Your Balance Sheet

Authored by: [Liza L.S. Mark](#), [Tianyun \(Joyce\) Ji](#) and [Maisy Chang](#)

China believes that data serves as the foundation of digitization and national development, which will shape its future development. In that regard, as early as March 30, 2020, China published the “Opinions of the Communist Party of the China Central Committee and the State Council on Instituting More Thorough Systems and Mechanisms for Market-based Allocation of Production Factors” (《中共中央、国务院关于构建更加完善的要素市场化配置体制机制的意见》), officially establishing data's marketability as the fifth “market production factor”<sup>1</sup> in addition to land, labor, capital and technology.<sup>2</sup>

On Dec. 2, 2022, China adopted the most important data policy to date: “Opinions of the CPC Central Committee and the State Council on Building a Data Base System for Better Use of Data as Factor of Production” (《中共中央、国务院关于构建数据基础制度更好发挥数据要素作用的意见》) – also known as the “20 Data Measures” (the “**Measures**”) – which focus on four major topics relating to data management, including data property rights, data flow and trading, data revenue distribution and data security governance. According to the Measures, it recognizes that “as a new type of production factor, data is the foundation of digitization, network and intelligence. It has been rapidly integrated into all aspects of production, distribution, circulation, consumption and social service management, profoundly changing the ways of production, daily lives and social governance.”

On Jan. 5, 2024, 17 ministries, including the National Data Administration (NDA),<sup>3</sup> jointly issued the “Data Element X” Three-Year Action Plan (《“数据要素X”三年行动计划》), seeking to boost use of data in 12 sectors, from manufacturing and finance to technological innovation and green and low-carbon development. By advancing the use of data, China expects to improve resource allocation and foster new industries and patterns as well as new economic growth drivers. The action plan indicates that China will increase efforts to promote high-level application of data, ensure the quality of data supply, improve the environment of data circulation and strengthen data security.

This article provides an overview of China's recent efforts in creating this data resource ecosystem.

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<sup>1</sup> To qualify as a “factor of production,” according to a Chinese economist who participated in the government's data strategy policy drafting, “it must be a must-have basic resource in the production of goods and services; data can only qualify as a factor of production if it is used in production and business activities and generate significant value.” (Huang, L. (2023b). “*The Exploration of Inner Logics of Data as Factor of Production Market*.” Internal presentation delivered on Jan. 4, 2023, in Beijing, China.)

<sup>2</sup> i.e., 土地、劳动力、资本、技术.

<sup>3</sup> The NDA was inaugurated in October 2023 as part of China's efforts to advance the planning and building of a “digital China,” including a digital economy and society. It is an administration under the National Development and Reform Commission (NDRC) of the State Council of China, which took over several responsibilities from the Cyberspace Administration of China (CAC) and the NDRC, including promoting smart cities and the exchange of information resources across industries.

## 1. The Three Prongs of Data Property Rights

Data's property rights are difficult to establish based on the "ownership" system, as data oftentimes are not completely "owned" by a single owner from the very beginning. Instead, various exploitation opportunities of data elements are often attributed to different parties from the outset. Therefore, the Measures focus more heavily on the right to use data rather than ownership (i.e., legal title).

According to the Measures, a data processor enjoys property rights of data, which can be further separated into three rights: (i) the right to hold data resources, (ii) the right to process and use the data and (iii) the right to manage data products.<sup>4</sup> Specifically:

- a. Right to hold data. Both the data processor who originally collected the data, as well as the processor who organizes the data through subsequent processing, shall first have the right to hold the data and to independently control the acquired data resources according to relevant laws and/or contractual arrangements (such as through a purchase and sale agreement, or licensing agreement).

The right to hold data will generally include the right to manage, use, receive benefits therefrom, disposition etc.<sup>5</sup>

- b. Right to process and use data. Data holders have the right to use the data they hold according to relevant laws and/or contractual arrangements (such as through a purchase and sale agreement, or licensing agreement) and can independently use the data in various production and operation scenarios according to their own needs, including the development and utilization of data, without detriment to any existing rights or claims of the data subject's prior rights, as provided under relevant laws, such as the rights of data subject of personal information, as provided under Chapter 4 of the Personal Information Protection Law (the "**PIPL**").

The right to process and use data will generally include the right to collect, use, analyze, process etc.<sup>6</sup>

- c. Right to manage data products. Data holders also have the right to utilize data as operating assets to create derivative products, and they can transfer the use value and economic value of those products to other parties through arrangements, such as licensing, investment, pledges etc. In practice, data that are commonly sold by data-holders include anonymized processed data, data analysis products and other derivative data, as well as original data or derivative data that has not been anonymized but has obtained the consent of the data subject in accordance with relevant laws, such as the PIPL, China's Anti-Unfair Competition Law, etc.

The right to manage data products will generally include the right to possess, use, receive benefits therefrom, disposition etc.<sup>7</sup>

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<sup>4</sup> Common data products are raw data products (such as data pack, data Application Programming Interface or API) and data derivative products (such as data visualization, modeling, cleaning, etc.)

<sup>5</sup> According to "Shenzhen Interim Measures for Data Property Rights Registration and Management" (2023) (《深圳市数据产权登记管理暂行办法》(2023))

<sup>6</sup> Id.

<sup>7</sup> Id.

Based on the above data rights, the Measures seek to establish an efficient legal system for data right of use, processing, circulation and trading, covering both over-the-counter markets and exchange-traded markets. China hopes to encourage market participants – especially tech and AI-driven companies – to share and trade their datasets, while putting an end to the longstanding market practice of abusive use of personal data.

## 2. Data Accounting Treatment – When Can Data Be an “Asset” on Your Balance Sheet?

On Aug. 1, 2023, China’s Ministry of Finance circulated the “Interim Provisions on the Relevant Accounting Treatment for Data Resources of Enterprises” (《企业数据资源相关会计处理暂行规定》) (the “**Data Accounting Treatment Provision**”), which came into effect as of Jan. 1, 2024. Under the Data Accounting Treatment Provision, two types of data resources can now be recognized as an “asset”<sup>8</sup> in an enterprise’s financial statements: (i) data resources utilized by the enterprise itself – as intangible assets and (ii) data resources to be sold by the enterprise – as inventory. This provision essentially offers businesses the option to capitalize data resources, in addition to the traditional way of expensing them out during balance sheet preparation.

Data can now be recognized as an “asset” under China Accounting Standards (“**CAS**”) when: (i) it is lawfully owned or controlled by the enterprise, (ii) the relating economic benefits of such data are highly likely to belong to the enterprise and (iii) the costs associated with such data can be measured reliably. This means that an enterprise intending to recognize data assets on its balance sheet should at least do the following:

- a. Make sure it has lawful rights over the data resources, which include lawful original acquisition of data, and any subsequent use and derivative use are properly authorized;
- b. Proper and continuous evaluation of data assets;<sup>9</sup>
- c. Be able to provide supporting documentation showing that it will likely enjoy economic benefits from the data assets, by way of market analysis, historical data, contracts, income projections, etc.; and
- d. Determine and identify costs relating to the acquisition, development and maintenance of data assets’ collection, storage, processing, analysis, protection etc.

According to the Data Accounting Treatment, for data resources to be recognized as **intangible assets**, such data should meet the same requirements as other intangible assets under the CAS, i.e., being technically feasible, having intention to use and sell, being able to prove how it generates economic benefits, having sufficient resources and capabilities to support and having expenditures that can be measured reliably etc.

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<sup>8</sup> According to Chinese Accounting Standards (CAS), an “asset” is defined as “resources that are owned or controlled by the enterprise, formed by past transactions or events of an enterprise, and expected to bring economic benefits to the same.” (Article 20 of the CAS). Similarly, the International Financial Reporting Standards (IFRS) framework defines an asset as “a resource controlled by the enterprise as a result of past events and from which future economic benefits are expected to flow to the enterprise.” And according to U.S. GAAP, an asset is defined as a present right of an entity to an economic benefit.

<sup>9</sup> Effective Oct. 1, 2023, the China Appraisal Society published the Guidance on Data Asset Evaluation (《数据资产评估意见》), which provides practical guidance on the applicability, methodology, disclosure requirements etc. during evaluation process of data assets.

Similarly, for data resources to be recognized as **inventory**, CAS requires that those assets are held in daily operational activities for the ultimate purpose for sale.

After the effective date of Jan. 1, 2024, many banks in China have started to develop innovative financial products based on data assets. For example, early this year, Shanghai Data Exchange launched a credit service product called “Data-Easy-Loan (数易贷)” as supported by several national banks. This product takes data as the core asset and enables banks to extend loans to businesses using data as collateral (currently, either “loan credit enhancement” or “pledge loan”).<sup>10</sup> As another example, in March 2023, an AI-startup in Shenzhen was able to obtain an unsecured loan of 10 million RMB based on its data product listing on Shenzhen Data Exchange.<sup>11</sup>

Additionally, by a review of a Q1 2024 report of public companies,<sup>12</sup> there were 23 publicly listed companies on the Shanghai A-Share Market that reported “data resources” in their first-quarter report, with a combined total asset value of RMB 1.48 billion. At least 100 non-publicly-listed companies (mostly being state-owned enterprises) have also disclosed data assets on their balance sheets, among which over 40 companies were able to obtain financing from banks based on the data assets they own.<sup>13</sup>

### 3. Protection for Data Property Rights – How Do You Prevent Others From Using Your Data Assets?

Currently, one’s rights over data resources against interference are protected under China’s Anti-Unfair Competition Law (Revised in 2019) (《反不正当竞争法》(2019年修订)) – Article 2 (for general protection) and Article 12 (for internet businesses). To prevail on such a claim, the plaintiff needs to establish (i) that it is the rightful owner of relevant data resources, (ii) that the defendant’s unauthorized use of said data constitutes unfair competition and (iii) that the plaintiff is entitled to remedies, including injunction and/or monetary damages.

- a. In ascertaining the plaintiff’s rights to data, the court will determine whether the plaintiff’s access to and possession of data was lawful (i.e., with proper authorization), and whether the subject data has market value which offers the plaintiff a competitive advantage.
- b. In determining whether the defendant’s conduct constitutes unfair competition, the court will examine a number of factors, including whether the plaintiff suffered actual damages, whether the defendant’s conduct was in bad faith and violates business ethics, etc.
- c. In assessing damages, the court will evaluate the plaintiff’s “brand name,” the subject data’s market value, the defendant’s intent, the size and scope of the tortious act, the plaintiff’s costs to assert rights, etc. Punitive damages may also be available if the defendant is found to possess malicious intent.

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<sup>10</sup> See <https://www.shanghai.gov.cn/nw4411/20240223/11743411373a452ea7d0195178590e7b.html>

<sup>11</sup> See <https://www.zjcaee.com/show/news-95.html>

<sup>12</sup> [https://www.thepaper.cn/newsDetail\\_forward\\_27243253](https://www.thepaper.cn/newsDetail_forward_27243253)

<sup>13</sup> Recently, as of August 2024, China’s “big three” telecommunication operators (i.e., China Telecom, China Mobile and China Unicom) all listed data resources as assets in their balance sheets, which in combined, recognized over RMB 250 million (approx. U.S. \$35 million) in data assets.

Furthermore, according to Article 19 of “Interim Provisions on Anti-Unfair Competition in the Internet Sector” (《网络反不正当竞争暂行规定》) promulgated by China’s State Administration for Market Regulation, which came into effect on Sept. 1, 2024, businesses cannot use technical means to illegally obtain or use any data that are lawfully possessed by other businesses, obstructing or damaging the normal operation of the network products or services legally provided by other business operators, and disrupting the market.

## 4. Formal Trading of Data

Starting in 2021, major cities such as Beijing, Shanghai and Shenzhen all established data exchanges with strong government support. For example, the Shanghai Data Exchange officially started operations in Jan. 2023, with currently over 2,700 listed data products. These new marketplaces are meant to facilitate the “orderly sharing of data” to increase productivity and public welfare while protecting security and privacy. To better encourage trading for data assets and to facilitate data circulation, the Measures call for a new registration system for data property rights, which would include two aspects: (i) a new registration technique such as blockchain to ensure consistency and to avoid tampering and (ii) new registration contents, i.e., the registered subject being raw data, combination of data, data products or all of the above.

The Measures also create an authorized data access and trading system separated into three types of data: public data, personal data and enterprise data. In particular,

- a. With respect to **public data** generated in the process of performing duties or providing public services by government agencies, the Measures encourage enhancement of collection, sharing, opening public access and development, strengthening authorized use and management and promoting exchanges of data among market participants.
- b. For data that are collected and processed from enterprises’ activities neither containing personal information (the “**PI**”) nor of public interest – i.e., **enterprise data** – the Measures authorize the establishment of the three data rights as discussed above to encourage discovering new models of authorized use of enterprise data (jointly by state-owned enterprises, industry-leading big tech, with small, medium and micro enterprises) so as to utilize data to empower enterprises of all sizes during digital transformation. The Measures also support agencies and service providers to strengthen the formulation of data collection and quality assessment standards, to advance the standardization of data products and to develop industries such as data analysis and data services.
- c. For **personal data**, the Measures reinstate the concepts as introduced by PIPL and relevant implementing rules, such as to regulate the collection and use of PI, to promote the anonymization of PI and to ensure information security and personal privacy when using PI and data.

In response to the Measures’ mandates, many cities have enacted local rules regarding how rights to data resources/assets can be registered, protected and traded. For example, the Shanghai Data Exchange took the lead in the registration and trade of data assets by launching the first Data Asset Market on June 28, 2024. According to the Shanghai Data Exchange’s official website, the Data Asset Market has registered 20 data assets, the number of data asset transaction has reached 12 and the total transaction volume is over 0.1 billion RMB within two months. Shenzhen also released the “Interim Measures for Data Property Rights Registration and Management” (2023) (《深圳市数据产权登记管理暂行办法》(2023)), where it provides that registration certificates for data resources (or data products) can be used as the basis for data trading, financing, balance sheet recognition and litigation/arbitration evidence.

## Conclusion

Data itself has certain characteristics that make it very difficult to legally and crisply define its property rights and ownership boundaries. For example, 1) non-excludability (i.e., multiple parties can use it concurrently), 2) replicability (i.e., it can be replicated multiple times) and 3) difficulty in identifying the original source. This then makes it harder to define and regulate data transactions. Due to these characteristics, the current model for the protection of data and data resources in the West appears to be to keep it under lock and key by the enterprise that generated the data.

We are observing a bifurcation on how China and the West are structuring their systems and legal protections for the ownership, handling and usage of data. The Measures appear to be an initial step for China to encourage a clear ownership structure and free trading of data, thereby encouraging such data and data resources to be used, capitalized, monetized, traded and otherwise utilized amongst the society as a whole.

Enterprises that have operations in China should be thinking about how to take advantage of counting data as an asset and generating derivative value from data resources. The current legal ownership rights over data and data resources are still not clearly defined under the Measures. However, we are seeing the Chinese system encourage experimentation and treatment of data as an asset, so we anticipate that further clarification of legal property rights over data and data resources (including the details of how data property rights are to be recognized and protected for public, personal and business data; the mechanism of public recording of data property rights; the establishment of an organized national data trading center and platform etc.) should be forthcoming soon under the Measures.

For more information, please visit our China Updates page or see the following resources:

[China Releases New Rules to Ease Burden on Cross-Border Transfer of Data](#), May 16, 2024

[China Increases Filing Thresholds for Antitrust Merger Review](#), April 2, 2024

[China Streamlines Requirements Regarding Data Export in the Greater Bay Area](#), February 29, 2024

[China Releases Regulation on the Protection of Children in Cyberspace](#), December 5, 2023

[China Publishes Interim Measures for the Management of Generative Artificial Intelligence Services](#), August 7, 2023

[Mexico Nearshoring: Opportunity for Manufacturers in China and the U.S.](#), April 5, 2023

[China MIIT Releases Data Security Management Measures for Industrial and Information Technology Sectors](#), February 20, 2023

[A New Guideline Added to China's Data Protection Framework](#), August 17, 2022

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