

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 20-F

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
 ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2024.
OR
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
OR
 SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.
For the transition period from ___ to ___
Commission file number: 001-39127

Canaan Inc.

(Exact name of Registrant as specified in its charter)

Cayman Islands
(Jurisdiction of incorporation or organization)
28 Ayer Rajah Crescent #06-08, S139959, Singapore
(Address of principal executive offices)
James Jin Cheng, Chief Financial Officer
Telephone: +65 6305 6618
Email: IR@canaan-creative.com
28 Ayer Rajah Crescent #06-08, S139959, Singapore
* (Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class	Trading Symbol	Name of each exchange on which registered
American Depositary Shares, each representing 15 Class A ordinary shares	CAN	NASDAQGlobalMarket.
Class A ordinary share		
Class A ordinary shares, par value US\$0.00000005 per share*		NASDAQGlobalMarket.

* Not for trading, but only in connection with the registration of American Depositary Shares representing such Class A ordinary shares pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act. None
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act. None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

5,281,820,043 Class A ordinary shares were outstanding as of December 31, 2024
311,624,444 Class B ordinary shares were outstanding as of December 31, 2024

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note - Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act.

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. Yes No

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b). Yes No

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP International Financial Reporting Standards as issued by the International Accounting Standards Board Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes No

CANAAN INC.
FORM 20-F ANNUAL REPORT
FISCAL YEAR ENDED DECEMBER 31, 2024

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Conventions that Apply to this Annual Report on Form 20-F

In this annual report, unless otherwise indicated:

- “ADRs” are to American depositary receipts, which, if issued, evidence the ADSs;
- “ADSs” are to the American depositary shares, each of which represents 15 of our Class A ordinary shares;
- “China” and the “PRC” are to the People’s Republic of China, excluding, for the purposes of this annual report only, Taiwan, the Hong Kong Special Administrative Region and the Macao Special Administrative Region;
- “Series A Convertible Preferred Shares” are to our series A convertible preferred shares, par value \$0.00000005 per share;
- “Series A - 1 Preferred Shares” are to our series A - 1 convertible preferred shares, par value \$0.00000005 per share;
- “PRC subsidiaries” are to, for the purpose of this annual report, Hangzhou Canaan Intelligence Information Technology Co., Ltd., Canaan Creative Co., Ltd., Langfang Creative Technology Co., Ltd., Canaan Convey Co., Ltd., Zhejiang Avalon Technology Co., Ltd., Canaan Bright Sight Co., Ltd., and Canaan Creative (SH) Co., Ltd, Hangzhou Ruihong Technology.
- “operating subsidiaries” are to, for the purpose of this annual report, Canaan Creative Co., Ltd., Langfang Creative Technology Co., Ltd., Canaan Convey Co., Ltd., Zhejiang Avalon Technology Co., Ltd., Canaan Bright Sight Co., Ltd., Canaan Creative (SH) Co., Ltd, Canaan Creative International PTE. Ltd., Canaan Creative Global Pte. Ltd., and Canaan U.S. Inc.
- “RMB” or “Renminbi” are to the legal currency of China;
- “US\$,” “U.S. dollars,” or “dollars” are to the legal currency of the United States; and
- “we,” “us,” “our company,” “the Company,” “our” and “Canaan” are to Canaan Inc. and its subsidiaries, as the context requires.

Starting from January 1, 2023, we changed our reporting currency from Renminbi to U.S. dollar. The aligning of the reporting currency with the underlying operations will better reflect our business development of recent years and future global strategy. Assets and liabilities of entities with functional currencies other than US\$ are translated into US\$ using the exchange rate on the balance sheet date. Revenues and expenses of entities with functional currencies other than US\$ are translated into US\$ at average rates prevailing during the reporting period. Prior periods’ financial information has been recast as if we always used US\$ as our reporting currency.

Our ADSs are listed on the NASDAQ Global Market under the symbol “CAN.”

Glossary of Technical Terms

This glossary contains explanations of certain terms used in this annual report in connection with our company and our business. In this annual report, unless otherwise indicated:

- “AICPA” are to American Institute of Certified Public Accountants;
- “ASICs” are to application-specific ICs, meaning ICs designed for a specific application;
- “CPU” are to computing processing unit;
- “GPU” are to graphic processing unit;
- “edge computing” are to a method of optimizing cloud computing systems by performing data processing at the edge of the network, near the source of the data;
- “FPGA” are to field programmable gate array, an integrated circuit designed to be configured by a customer or a designer after manufacturing;
- “hash” are to a function used to map data of arbitrary size to data of fixed size and, in the context of Bitcoin mining, a function to solve the mining puzzle;
- “hash rate” are to the processing power of the Bitcoin network and represents the number of computations that is processed by the network in a given time period;
- “ICs” or “chips” are to integrated circuits;
- “IoT” are to Internet-of-Things, the extension of internet connectivity into physical devices and everyday objects;
- “ISO” are to the International Organization of Standardization;
- “network computing power” are to the processing power of all the machines in the Bitcoin network;
- “neural-network accelerator” are to a class of microprocessor designed as hardware acceleration for edge computing applications;
- “nm” are to nanometer;
- “PMU” are to power management unit, which is a microcontroller that governs power functions;
- “POW” are to proof-of-work;
- “Risc-V” are to an open source instruction set architecture, which is a set of instructions that describes the way in which software talks to an underlying processor, and Risc-V’s open source nature means that anyone can build a processor to support it without paying high royalty fees;
- “SoC” are to a chip that integrates all components of a computer or other electronic systems;
- “tape-out” are to the final result of the design process for ICs when the graphic for the photomask of the IC is sent to the fabrication facility, and a successful tape-out means all the stages in the design and verification process of ICs have been completed;
- “Thash” are to Terahash, the measuring unit of the processing power of the Bitcoin mining machine; and
- “Thash/s” or “TH/s,” “GH/s” are to the measuring unit of hash rate. 1 TH/s = 1,000 GH/s.

Forward-Looking Information

This annual report contains statements of a forward-looking nature. All statements other than statements of historical facts are forward-looking statements. These forward-looking statements are made under the “safe harbor” provision under Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and as defined in the Private Securities Litigation Reform Act of 1995. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from those expressed or implied by the forward-looking statements. In some cases, these forward-looking statements can be identified by words or phrases such as “may,” “will,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “potential,” “continue,” “is/are likely to” or other similar expressions.

These forward-looking statements relate to, among others:

- our goal and strategies;
- our expansion plans;
- our future business development, financial condition and results of operations;
- our expectations regarding demand for, and market acceptance of, our products; and
- general economic and business conditions.

We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs.

You should read these statements in conjunction with the risks disclosed in “Item 3. Key Information—D. Risk Factors” of this annual report and other risks outlined in our other filings with the Securities and Exchange Commission, or the SEC. Moreover, we operate in an emerging and evolving environment. New risks may emerge from time to time, and it is not possible for our management to predict all risks, nor can we assess the impact of such risks on our business or the extent to which any risk, or combination of risks, may cause actual results to differ materially from those contained in any forward-looking statements. The forward-looking statements made in this annual report relate only to events or information as of the date on which the statements are made in this annual report. Except as required by law, we undertake no obligation to update any forward-looking statements to reflect events or circumstances after the date on which the statements are made or to reflect the occurrence of unanticipated events. You should read this annual report and the documents that we have referred to in this annual report, completely and with the understanding that our actual future results may be materially different from what we expect.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not required.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not required.

ITEM 3. KEY INFORMATION

We are a Cayman Islands holding company and conduct all of our operations through our operating subsidiaries. Investors in the ADSs are not purchasing equity securities of our operating subsidiaries but instead are purchasing equity securities of a Cayman Islands holding company. We face various legal and operational risks and uncertainties associated with having a significant portion of our operations in China and the complex and evolving PRC laws and regulations. For example, we face risks associated with regulatory approvals on offerings conducted overseas and foreign investment in issuers with a substantial level of China-based operations, anti-monopoly regulatory actions, regulatory actions for virtual currency-related business activities and mining activities and oversight on cybersecurity and data privacy, which may negatively impact our ability to conduct certain businesses, access foreign investments, or list on foreign stock exchange. These risks could result in a material adverse change in our operations and the value of our ADSs, significantly limit or completely hinder our ability to offer or continue to offer securities to investors, or cause the value of such securities to significantly decline or become worthless. For a detailed description of risks relating to doing business in China, see “—D. Risk Factors—Risks Relating to Doing Business in the PRC.”

Permissions Required from the PRC Authorities for Our Operations

We conduct a substantial portion of our business through our PRC subsidiaries in China. Our operations in China are governed by PRC laws and regulations. As of the date of this annual report, our PRC subsidiaries have obtained all requisite permissions for our operations in all material aspects from relevant Chinese authorities, and none of the requisite permissions for our operations in all material aspects have been denied by the Chinese authorities.

Given the uncertainties of interpretation and implementation of relevant laws and regulations and the enforcement practice by relevant government authorities, we may be required to obtain additional licenses, permits, filings or approvals for our business operations in the future. If our PRC subsidiaries (i) do not receive or maintain required permissions or approvals, (ii) inadvertently conclude that such permissions or approvals are not required, or (iii) applicable laws, regulations, or interpretations change and our PRC subsidiaries are required to obtain such permissions or approvals in the future, our PRC subsidiaries could be subject to fines, legal sanctions or an order to suspend the our PRC subsidiaries’ business, which may materially and adversely affect the business, financial condition and results of operations of us.

Offering of Securities outside of PRC

The China Securities Regulatory Commission, or the CSRC, promulgated Trial Administrative Measures of the Overseas Securities Offering and Listing by Domestic Companies (the “Overseas Listing Trial Measures”) and five relevant guidelines on February 17, 2023, which became effective on March 31, 2023. The Overseas Listing Trial Measures regulate both direct and indirect overseas offering and listing by PRC domestic companies by adopting a filing-based regulatory regime.

The Overseas Listing Trial Measures provide that if the issuer both meets the following criteria, the overseas securities offering and listing conducted by such issuer will be deemed as indirect overseas offering subject to the filing procedure set forth under the Overseas Listing Trial Measures: (i) 50% or more of the issuer’s operating revenue, total profit, total assets or net assets as documented in its audited consolidated financial statements for the most recent fiscal year is accounted for by the issuer’s domestic companies; and (ii) the issuer’s business activities are substantially conducted in mainland China, or its principal place of business are located in mainland China, or the senior managers in charge of its business operations and management are mostly Chinese citizens or domiciled in mainland China. The determination as to whether or not an overseas offering and listing by domestic companies is indirect, shall be made on a substance over form basis.

On the same day, the CSRC also held a press conference for the release of the Trial Measures and issued the Notice on Administration for the Filing of Overseas Offering and Listing by Domestic Companies, which, among others, clarifies that on or prior to the effective date of the Overseas Listing Trial Measures, domestic companies that have been completed their overseas offering and listing, which are called as “the stock enterprises (存量企业)”. As a stock enterprise (存量企业), we shall file with the CSRC within 3 working days after the subsequent securities offering is completed. The CSRC shall order rectification, issue warnings and impose fines to the company fails to fulfill filing procedure as stipulated in Overseas Listing Trial Measures.

In addition, the CSRC published the Provisions on Strengthening Confidentiality and Archives Administration in Respect of Overseas Issuance and Listing of Securities by Domestic Enterprises (《关于加强境内企业境外发行证券和上市相关保密和档案管理工作的规定》) on February 24, 2023, which became effective on March 31, 2023. The CSRC stipulates domestic enterprises, securities companies and securities service agencies which provide the corresponding services in the course of overseas issuance and listing of domestic enterprises, shall strengthen legal awareness of confidentiality of State secrets and archives administration, establish a sound system for confidentiality and archives work, adopt the requisite measures to perform the responsibilities of confidentiality and archives administration.

As there are still uncertainties regarding the interpretation and implementation of such regulatory guidance, we cannot assure you that we will always be able to comply with new regulatory requirements relating to our future overseas capital-raising activities. We may become subject to more stringent requirements with respect to matters including cross-border investigation and enforcement of legal claims.

Proposed Regulation by the Cyberspace Administration of China

On July 10, 2021, the Cyberspace Administration of China, or the CAC, the National Development and Reform Commission, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of State Security, Ministry of Finance, Ministry of Commerce, People’s Bank of China, State Administration for Market Regulation, National Radio and Television Administration, China Securities Regulatory Commission, National Administration of State Secrets Protection and State Cipher Code Administration jointly issued the revised Measures for Cybersecurity Review (《网络安全审查办法(2021)》) (the “Revised Review Measures”), which became effective on February 15, 2022. Pursuant to the Revised Review Measures, critical information infrastructure operators that procure internet products and services and network platform operators engaging in data processing activities that affect or may affect national security must be subject to the cybersecurity review. The Revised Review Measures further stipulate that if a network platform operator has personal information of over one million users and intends to be listed in a foreign country, it must be subject to the cybersecurity review. On November 14, 2021, the CAC published the Administrative Regulations on Internet Data Security (Draft for Comment) (《网络数据安全条例(征求意见稿)》, “Draft Regulations”), which stipulate the scope for data processors to declare network security review. The draft regulations may apply to the use of networks to carry out data processing activities and the supervision and administration of network data security in China and apply to activities outside China to process data of individuals and organizations in China under any of the following circumstances: (1) for the purpose of providing products or services to China; (2) analyze and evaluate the behavior of domestic individuals and organizations; (3) involving domestic important data processing; (4) other circumstances stipulated by laws and administrative regulations. The Draft Regulations further stipulate that if a data processor that processes the personal information of more than one million users intends to be listed in a foreign country, it shall declare the network security review. On July 7, 2022, CAC promulgated Measures for the Security Assessment of Outbound Data Transfers, (《数据出境安全评估办法》, the “Data Cross Border Measures”), which became effective on September 1, 2022 and provide that a data processor is required to apply for security assessment for cross-border data transfer in any of the following circumstances: (i) where a data processor provides critical data to offshore entities and individuals; (ii) where a CIIO or a data processor which processes personal information of more than one million individuals provides personal information to offshore entities and individuals; (iii) where a data processor has provided personal information in the aggregate of more than 100,000 individuals or sensitive personal information of more than 10,000 individuals in total to offshore entities and individuals since January 1 of the previous year; or (iv) other circumstances prescribed by the CAC for which declaration for security assessment for cross-board transfer of data is required. Furthermore, on August 31, 2022, the CAC promulgated the Guidelines for filing the Outbound Data Transfer Security Assessment (Version 1)(《数据出境安全评估申报指南(第一版)》), which provides that acts of outbound data transfer include (i) overseas transmission and storage by data processors of data generated during mainland China domestic operations; (ii) the access to, use, download or export of the data collected and generated by data processors and stored in mainland China by overseas institutions, organizations or individuals; and (iii) other acts as specified by the CAC. Our principal business activities do not involve large numbers of registered users or deal with vast amount of user data. While we operate a small-scale online discussion forum for developers and therefore transmit and store limited amount of confidential and private information of our customers and others, such as personal information, including user accounts, phone numbers, and E-mail accounts, our online discussion forum is far less than one million of registered users. The Revised Review Measures and the Draft Regulations remain unclear on whether the relevant requirements will be applicable to companies, which have been listed in the United States, such as us. They also remain uncertain whether the future regulatory changes would impose additional restrictions on companies like us. We cannot predict the impact of the Revised Review Measures and the Draft Regulations, if any, at this stage, and we will closely monitor and assess any development in the rule-making process.

The Holding Foreign Companies Accountable Act

Our auditor, KPMG Huazhen LLP is independent registered public accounting firms that issue the audit reports included elsewhere in this annual report. Our securities will be prohibited from trading on a national securities exchange or in the over-the-counter trading market in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, if the Securities and Exchange Commission determines that Canaan has filed audit reports issued by a registered public accounting firm that has not been subject to inspections by the PCAOB for two consecutive years. On December 16, 2021, the PCAOB issued a report to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong and our auditor was subject to this determination. Consequently, we were conclusively identified as a “Commission - Identified Issuer” on May 4, 2022. On December 15, 2022, the PCAOB issued a report that vacated its December 16, 2021 determination and removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. For this reason, we do not expect we will be identified as a Commission - Identified Issuer under the HFCAA after we file this annual report for the fiscal year ended December 31, 2024. Each year, the PCAOB will determine whether it can inspect and investigate completely audit firms in mainland China and Hong Kong, among other jurisdictions. If the PCAOB determines in the future that it no longer has full access to inspect and investigate completely accounting firms in mainland China and Hong Kong and we use an accounting firm headquartered in one of these jurisdictions to issue an audit report on its financial statements filed with the SEC, we would be identified as a Commission - Identified Issuer following the filing of the annual report on Form 20-F for the relevant fiscal year. In accordance with the HFCAA, our securities would be prohibited from being traded on a national securities exchange or in the over-the-counter trading market in the United States if it is identified as a Commission - Identified Issuer for two consecutive years in the future. See “- D. Risk Factors - Risks Relating to Doing Business in the PRC - Our ADSs may be delisted under the Holding Foreign Companies Accountable Act if the PCAOB is unable to inspect auditors who are located in China. The delisting of our ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment.”

Cash Flows through our Company

Canaan Inc. is a Cayman Islands holding company with no operations of its own. We conduct our operations primarily through our operating subsidiaries. As a result, although other means are available for us to obtain financing at the holding company level, the ability of Canaan Inc. to pay dividends to the shareholders and to service any debt it may incur may depend upon dividends primarily paid by our PRC subsidiaries. If any of our operating subsidiaries incurs debt on its own behalf, the instruments governing such debt may restrict its ability to pay dividends to Canaan Inc. For more details, see “Item 5. Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Holding Company Structure.”

Under PRC laws and regulations, our PRC subsidiaries are subject to certain restrictions with respect to paying dividends or otherwise transferring any of their net assets to us. Remittance of dividends by a wholly foreign-owned enterprise out of China is also subject to examination by the banks designated by State Administration of Foreign Exchange, or SAFE. These restrictions are benchmarked against the paid-up capital and the statutory reserve funds of our PRC subsidiaries. For risks relating to the fund flows of our operations in China, see “—D. Risk Factors—Risks Relating to Doing Business in the PRC—Our corporate structure may restrict our ability to receive dividends from, and transfer funds to, our PRC subsidiaries, which could restrict our ability to act in response to changing market conditions in a timely manner.” For the years ended December 31, 2022, 2023 and 2024, no dividends or distributions were made to Canaan Inc. by our PRC subsidiaries.

Under PRC law, Canaan Inc. may provide funding to our PRC subsidiaries only through capital contributions or loans, subject to satisfaction of applicable government registration and approval requirements. For the years ended December 31, 2022, 2023 and 2024, Canaan Inc. did not provide loans to its PRC subsidiaries through its Hong Kong subsidiary. For the years ended December 31, 2022, 2023 and 2024, no cash generated from one of our subsidiaries was used to fund another subsidiary’s operations. And we do not have any policy in place that dictate such funding. As of the date of this annual report, we have never faced difficulties or limitations on our ability to transfer cash between our subsidiaries.

Taxation on Dividends or Distributions

Canaan Inc. has not declared or paid any dividends on our ordinary shares since our inception, nor has any present plan to pay any dividends on our ordinary shares or ADSs in the foreseeable future. We currently intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business. See “Item 8. Financial Information —A. Consolidated Statements and Other Financial Information—Dividend Policy and Distributions.” For Singapore, PRC and United States federal income tax considerations of an investment in our ADSs, see “Item 10. Additional Information—E. Taxation.” Under the current laws of the Cayman Islands, Canaan Inc. is not subject to tax on income or capital gains. Upon payments of dividends to our shareholders, no Cayman Islands withholding tax will be imposed.

A. [Reserved]

B. Capitalization and Indebtedness

Not required.

C. Reasons for the Offer and Use of Proceeds

Not required.

D. Risk Factors

Risk Factor Summary

The following summary highlights some of the principal risks that could adversely affect our business, financial condition or results of operations. This summary is not complete and the risks summarized below are not the only risks we face. These risks are discussed more fully further below in this section entitled “Risk Factors.” These risks include, but are not limited to, the following:

Risks Relating to Our Business and Industry

- Our results of operations have been and are expected to continue to be significantly impacted by the expected economic returns of Bitcoin mining.
- We derive a significant portion of our revenues from our Bitcoin mining machines. If the market for Bitcoin mining machines ceases to exist or diminishes significantly, our business and results of operations would be materially harmed.
- The industries in which we operate are characterized by constant changes. If we fail to continuously innovate and to provide products that meet the expectations of our customers, we may be unable to attract new customers or retain existing customers, and hence our business and results of operations may be adversely affected.
- We are subject to risks associated with legal, political or other conditions or developments regarding holding, using or mining of Bitcoins, which could negatively affect our business, results of operations and financial position.
- Changes in the Bitcoin algorithm or the mining mechanism may materially and adversely affect our business and results of operations.
- We lack a significant operating history in the Bitcoin mining space, and our strategic focus on this relatively new business is subject to a number of significant risks and uncertainties that could affect our future viability.
- We may be unable to make the substantial research and development investments that are required to remain competitive in our business.
- Our Bitcoin mining machine business depends on supplies from limited numbers of third-party foundry partners, and any failure to obtain sufficient foundry capacity from these third-party foundry partners would significantly delay the shipment of our products.
- Failure to maintain inventory levels in line with the approximate level of demand for our products could cause us to lose sales, expose us to increased inventory risks and subject us to increases in holding costs, risk of inventory obsolescence, increases in markdown allowances and write-offs, any of which could have a material adverse effect on our business, financial condition and results of operations.
- Our limited operating history and rapid revenue growth may make it difficult for us to forecast our business and assess the seasonality and volatility in our business.

- Our prepayments to suppliers may subject us to counterparty risk associated with such suppliers and negatively affect our liquidity and cash position.
- Failure at tape-out or failure to achieve the expected final test yields for our ASICs could negatively impact our operating results.
- The acceptance of Bitcoin network software patches or upgrades by a significant, but not overwhelming, percentage of the users and miners in the Bitcoin network could result in a “fork” in the blockchain, resulting in the operation of two separate networks that cannot be merged. The existence of forked blockchains could erode user confidence in Bitcoin and could adversely impact our business, results of operations and financial condition.
- If we fail to succeed in the edge computing market or other new application markets we seek to penetrate into, our revenues, growth prospects and financial condition could be adversely affected.
- Our Bitcoin mining machines use open source software and hardware as their basic controller system, which may subject us to certain risks.
- If we are unable to maintain or enhance our brand recognition, our business, financial condition and results of operations may be materially and adversely affected.
- Cyber-security incidents, including data security breaches or computer viruses, could harm our business by disrupting our delivery of services, damaging our reputation or exposing us to liability.
- Our business is subject to various evolving PRC laws and regulations regarding data privacy and cyber-security. Failure of cyber-security and data privacy concerns could subject us to penalties, damage our reputation and brand, and harm our business and results of operations.
- We require various approvals, licenses, permits and certifications to operate our business in a variety of geographical regions across the globe. Any failure to obtain or renew any of these approvals, licenses, permits or certifications could materially and adversely affect our business and results of operations.
- We may be involved in legal and other disputes from time to time, whether arising out of our operations, including disputes with our raw material or component suppliers, production partners, customers or employees, or class action lawsuits from our shareholders.

Risks Relating to Doing Business in the PRC

- Economic, political and social conditions as well as governmental policies in the PRC could adversely affect our business, prospects, financial condition and financial results.
- Changes to and uncertainties in the legal system of the PRC may have a material adverse impact on our business, financial condition and results of operations. Legal protections available to you under the legal system of the PRC may be limited.
- PRC governmental authorities may influence or influence our operations at any time, which could result in a material adverse change in our operations and the value of our ADSs. Also, PRC governmental authorities’ oversight and control over offerings conducted overseas by, and foreign investment in, issuers with a substantial level of China-based operations could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and result in a material adverse change in our operations and the value of our ADSs.
- Our corporate structure may restrict our ability to receive dividends from, and transfer funds to, our PRC subsidiaries, which could restrict our ability to act in response to changing market conditions in a timely manner.
- The PCAOB had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections of our auditor in the past has deprived our investors with the benefits of such inspections.

- Our ADSs may be delisted under the Holding Foreign Companies Accountable Act if the PCAOB is unable to inspect auditors who are located in China. The delisting of our ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment.

Risks Relating to Doing Business in International Markets

- We face risks associated with the expansion of our scale of operations globally, and if we are unable to effectively manage these risks, they could impair our ability to expand our business abroad.
- Our business operation and international expansion is subject to geopolitical risks.

Risks Relating to the ADSs

- The trading price of the ADSs is likely to be volatile, which could result in substantial losses to investors.
- If we issue additional equity securities in the future, you may suffer dilution, and trading price of our ADSs may decline.

An investment in our ADSs involves a high degree of risk. You should carefully consider the following information about these risks, together with the other information appearing elsewhere in this annual report, before deciding to invest in our ordinary shares. The occurrence of any of the following risks could have a material adverse effect on our business, financial condition, results of operations and future growth prospects. In these circumstances, the market price of our ADSs could decline, and you may lose all or part of your investment.

Risks Relating to Our Business and Industry

Our results of operations have been and are expected to continue to be significantly impacted by the expected economic returns of Bitcoin mining.

Our revenues are primarily derived from the sales of Bitcoin mining machines and related parts and accessories, which are, in general, determined by the demand and pricing of our Bitcoin mining machines. Bitcoin miners' purchasing behavior is primarily driven by the expected economic returns of Bitcoin mining. An increase in the Bitcoin price is one of significant factors that could increase the expected economic returns generated by Bitcoin mining activities and stimulate the demand and average selling price for our Bitcoin mining machines, and vice versa. Bitcoin price fluctuated significantly in the past few years and resulted in corresponding fluctuations of our sale of Bitcoin mining machines. We expect our results of operations to continue to be affected by the fluctuations of Bitcoin price, as a significant portion of our revenue is expected to come from the sales of Bitcoin mining machines and related parts and accessories. Any future significant reductions in the price of Bitcoin and Bitcoin network transaction fees, and/or the maintenance of a lower Bitcoin price for a long term will likely have a material and adverse effect on our results of operations and financial condition. For example, if the Bitcoin price or Bitcoin network transaction fees drop and fail to recover, the expected economic return of Bitcoin mining activities will diminish, thereby resulting in a decrease in demand for our Bitcoin mining machines. As a result, we may need to reduce the price of our Bitcoin mining machines. At the same time, if transaction fees increase to such an extent as to discourage users from using Bitcoins as a medium of exchange, it may decrease the transaction volume of the Bitcoin network and may affect the demand for our Bitcoin mining machines. We cannot assure you that the Bitcoin price will remain high enough to sustain our operations or that the price of Bitcoin will not decline significantly in the future. Further, fluctuations in the Bitcoin price can have an immediate impact on the trading price of our shares even before our financial performance is affected, if at all.

In addition to the volatility of Bitcoin price, various other factors, mostly beyond our control, could impact the expected economic returns of Bitcoin mining as well, including, among others, the overall imbalanced supply and demand for bitcoin mining machines, the supply and availability of mining farm resources, changes in electricity costs or other operating costs, the total network computing power, the cost-efficiency and the depreciation of mining machines, and a variety of special economic, geopolitical and regulatory factors. Additionally, any shortage of power supply due to government control measures or other reasons, and any increase in energy costs, would raise the costs of Bitcoin mining. This in turn could affect our customers' expected economic return for mining activities and the demand for and pricing of our Bitcoin mining machines.

Furthermore, price reduction in our bitcoin mining machines due to a complex effect of demand-supply dynamics, which is significantly impacted by the fluctuations in Bitcoin price, may subsequently affect the value of inventories as well as the provision we make to the inventory as we manage our inventories based on, among others, the sales forecast of our Bitcoin mining machines. As we generally increase our procurement volume and stock up finished goods for the launch of new products or we expect a surge of demand for Bitcoin mining machines, a significant drop in the Bitcoin price can lead to a lower expected sales price and excessive inventories, which in turn will lead to impairment losses with respect to such inventories. For example, as the Bitcoin price has fluctuated from 2023 to 2024, we continued to experience low demand and low prices in the Bitcoin mining machine market. As a result, we recorded inventories write-down, prepayment write-down and provision for inventory purchase commitments of US\$190.2 million and US\$100.6 million in 2023 and 2024, respectively. If the Bitcoin price drops significantly in the future, we may make similar write-down again. Going forward, if we are able to sell such inventories above their cost, the cost of sales for those machines will be net of such write-down, which in turn will have the effect of increasing our gross profit for the period.

The Bitcoin price drop in the past has also caused our customers who purchased our Bitcoin mining products on credit to be less willing to make payments. We consider the portion of the contract price on credit and not yet collected as implicit price concession and we recognize revenue based on subsequent information regarding our collection of such portion of the contract price. We did not provide price concession in 2023 and 2024. We had ceased to provide credit sales for our clients since the second half of 2020, and started to implement installment policy for some major customers who meet certain conditions in the second quarter of 2023. We may offer sales on credit to some of our customers in the future, and if the Bitcoin price drops significantly in the future, we will need to recognize such as implicit price concession.

We derive a significant portion of our revenues from our Bitcoin mining machines. If the market for Bitcoin mining machines ceases to exist or diminishes significantly, our business and results of operations would be materially harmed.

Historically, we generated substantially all of our revenues from the sales of our Bitcoin mining machines that incorporate our proprietary ASICs. In 2022, 2023 and 2024, sales of our Bitcoin mining machines and related parts and accessories accounted for 94.8%, 83.1% and 82.6% of our revenues, respectively. We may continue to generate a significant portion of our revenue from the sales of Bitcoin mining machines in the foreseeable future. If the market for Bitcoin mining machines ceases to exist or diminishes significantly, we would experience a significant loss of sales, cancelation of orders, or loss of customers for our Bitcoin mining machines. Adverse factors that may affect the market for Bitcoin mining machines include:

- Another cryptocurrency displaces Bitcoin as the mainstream cryptocurrency, thereby causing Bitcoin to lose value or become worthless, which could adversely affect the sustainability of our business;
- Bitcoin fails to gain wide market acceptance and fails to become a generally accepted medium of exchange in the global economy due to certain inherent limitations to cryptocurrencies or displaced by another cryptocurrency, thereby causing Bitcoin to lose value or become worthless, which could adversely affect the sustainability of our business;
- Over time, the reward for Bitcoin mining (in terms of the amount of Bitcoin awarded per unit of computing power participated in the Bitcoin mining) will decline, which may reduce the incentive to mine Bitcoin. Specifically, the halving events occurred in May 2020, April 2024, and the next halving event is expected to place in 2028, and Bitcoins are expected to be fully mined out by the year 2140. Therefore, Bitcoin mining machines may become less productive as the available rewards for Bitcoin mining decrease.

If we cannot maintain the scale and profitability of our Bitcoin mining machines or successfully expand our business in the edge computing chip market, our business, results of operations and ability to continue to grow will suffer. Furthermore, excess inventories, inventory markdowns, brand image deterioration and margin squeeze caused by declining economic returns for miners or pricing competition for our Bitcoin mining machines could all have a material adverse impact on our business, financial condition and results of operations.

The industries in which we operate are characterized by constant changes. If we fail to continuously innovate and to provide products that meet the expectations of our customers, we may be unable to attract new customers or retain existing customers, and hence our business and results of operations may be adversely affected.

The industries in which we operate are characterized by constant changes, including rapid technological evolution, continual shifts in customer demands, frequent introductions of new products and solutions and constant emergence of new industry standards and practices. Thus, our success will depend, in part, on our ability to respond to these changes in a cost-effective and timely manner. We need to anticipate the emergence of new technologies and assess their market acceptance. We also need to invest significant resources in research and development in order to keep our products competitive in the market.

However, research and development activities are inherently uncertain, and we might encounter practical difficulties in commercializing our research and development results, which could result in excessive research and development expenses or delays. Given the fast pace with which blockchain and edge computing chip technologies have been and will continue to be developed, we may not be able to timely upgrade our technologies in an efficient and cost-effective manner, or at all. In addition, new developments in edge computing, deep learning, IoT, computer vision, blockchain and cryptocurrency could render our products obsolete or unattractive. If we are unable to keep up with the technological developments and anticipate market trends, or if our technologies or solutions become obsolete because of new technologies, our products may no longer be attractive to customers. As a result, our business, results of operations and financial condition would be materially and adversely affected.

As our current mining machines are designed for Bitcoin mining, any limitation on the usage and adaptation of Bitcoin and any actual or perceived adverse development in the Bitcoin market, which is rapidly and continuously evolving, can impact our results of operations. As there is no wide consensus with respect to the value and application of Bitcoin, any future development may continue to affect the price of Bitcoin and hence affect the demand for our current Bitcoin mining machines. In addition, any event or rumor that generates negative publicity for the Bitcoin industry and market, such as allegations that Bitcoin is used for money laundering or other illicit activities, could result in harm to our reputation, which in turn may negatively affect our results of operations.

Decentralization, or the lack of control by a central authority, is a key reason that cryptocurrencies like Bitcoin have attracted many committed users. However, the decentralized nature of Bitcoin is subject to growing discussion and suspicion. Some claim that most of the actual services and businesses built within the Bitcoin ecosystem are in fact centralized since they are run by specific people, in specific locations, with specific computer systems, and that they are susceptible to specific regulations. Individuals, companies or groups, as well as Bitcoin exchanges that own vast amounts of Bitcoins, can affect the market price of Bitcoin. Furthermore, mining equipment production and mining pool locations are becoming centralized. Some argue that the decentralized nature of cryptocurrencies is a fundamental flaw rather than a strength. The suspicion about the decentralized nature of Bitcoin may cause our customers to lose confidence in the prospect of the Bitcoin industry. This in turn could adversely affect the market demand for our Bitcoin mining machines and our business.

We are subject to risks associated with legal, political or other conditions or developments regarding holding, using or mining of Bitcoins, which could negatively affect our business, results of operations and financial position.

Our customers are based globally. As such, our business could be significantly affected by, among other things, the regulatory and policy developments in countries and regions where we operate, such as Singapore, China, the United States, Central Asia and Africa, and Southeast Asia. Governmental authorities are likely to continue to issue new policies, laws, rules and regulations governing the blockchain and cryptocurrency industry we operate in and enhance enforcement of existing laws, rules and regulations.

In the recent years, the PRC government has been actively advancing a crackdown on Bitcoin mining and trading in China. For example, on May 21, 2021, the 51st meeting of the Financial Stability and Development Committee of the State Council announced a crackdown on bitcoin mining and trading activities in China. Accordingly, provincial authorities in the PRC have taken action to gradually crack down on cryptocurrency mining. For example, Sichuan Province ordered cryptocurrency mining in the province be “screened, cleaned up and terminated.” Inner Mongolia Autonomous Region and Qinghai Province have taken similar actions to stamp out cryptocurrency mining. On September 15, 2021, the People’s Bank of China, or PBOC, with nine other Chinese government authorities, jointly released the *Circular on Further Preventing and Handling the Risks Concerning Speculation in Virtual Currency Trading* (《关于进一步防范和处置虚拟货币交易炒作风险的通知》) (the “Circular No. 237”). Circular No. 237, for the first time, deems all cryptocurrency-related business activities, including: (i) exchanging legitimate currencies and cryptocurrencies or different types of crypto currencies for each other, (ii) trading cryptocurrencies as central counterparty, (iii) provision of intermediary services or pricing services for cryptocurrency transactions, (iv) issuance of tokens for financing, and (v) (for the first time) cryptocurrency related derivatives trading, as “illegal financial activities” that could involve illegal offerings of token notes, unauthorized public offerings of securities, illegal operation of futures business or illegal fundraising. It also provides that any cryptocurrency exchange offering services to Chinese residents from outside mainland China through the internet will also be regarded as conducting “illegal financial activities.” Also, on September 3, 2021, China’s National Development and Reform Commission (NDRC) and nine other authorities jointly issued a *Notice on Regulating Virtual Currency “Mining” Activities* (《关于整治虚拟货币“挖矿”活动的通知》) (the “Circular No. 1283”) to restrict cryptocurrency mining activities in the PRC. Circular No. 1283 imposes an outright ban on greenfield cryptocurrency mining projects, by including cryptocurrency mining as an “obsolete industry” in the Catalogue for Guiding Industry Restructuring (《产业结构调整指导目录》) (the “Catalogue”), which effectively prohibits investments in projects falling within this category. The Catalogue came into effect on December 30, 2021 and was later replaced by the version implemented on February 1, 2024, in which the cryptocurrency mining activities are still categorized as an “obsolete industry”. Circular No. 1283 also calls for existing cryptocurrency mining projects to be phased out at a quicker pace. Required actions include stopping and penalizing illicit power supply, differential electricity tariffs, withdrawing access to the power market, termination of financial and fiscal support and financial services for these projects, and phase-out within the time limits prescribed by the Catalogue. Any further order of the PRC government to limit, eliminate, clean up and terminate cryptocurrency mining may result in a crackdown on the cryptocurrency market and adversely affect the sales of our mining machine. While we have been actively exploring global markets and have had 69.7% of our total revenue generated from sales of Bitcoin mining machines and related parts and accessories and coming from the customers who undertake mining activities in countries outside of the PRC in 2024, the long-term impact of such restrictions could be detrimental to our business and profitability, and our business and results of operation may suffer and investors in our ADSs may lose part or all of their investment if further extreme restrictions follow.

Regulatory bodies in other jurisdictions, governmental or semi-governmental, have shown an interest in regulating or investigating companies engaged in the blockchain or cryptocurrency business. Restrictions imposed by the regulatory bodies in other jurisdictions may force us to restructure operations, perhaps significantly, which could result in significant costs and inefficiencies that harm our profitability, or even cause us to cease operations in the applicable jurisdiction. Cryptocurrency is a recent technological innovation and the regulatory schemes to which cryptocurrency and the related exchange may be subject have not been fully explored or developed in many countries. Thus, cryptocurrency faces an uncertain regulatory landscape in many countries. Some jurisdictions restrict various uses of cryptocurrencies, including the use of cryptocurrencies as a medium of exchange, the conversion between cryptocurrencies and fiat currencies or between cryptocurrencies, the provision of trading and other services related to cryptocurrencies by financial institutions and payment institutions, and initial coin offerings and other means of capital raising based on cryptocurrencies. We cannot assure you that these jurisdictions will not enact new laws or regulations that further restrict activities relate to cryptocurrencies. In addition, cryptocurrencies may be used by market participants for black market transactions, to conduct fraud, money laundering and terrorism-funding, tax evasion, economic sanction evasion or other illegal activities. As a result, governments may seek to regulate, restrict, control or ban the mining, use, holding and transferring of cryptocurrencies. We may not be able to eliminate all instances where other parties use Bitcoin mined with our Bitcoin mining machines to engage in money laundering or other illegal or improper activities. We cannot assure you that we will successfully detect and prevent all money laundering or other illegal or improper activities which may adversely affect our reputation, business, financial condition and results of operations. Furthermore, due to the environmental-impact concerns related to the potential high demand for electricity to support cryptocurrency mining activity, political concerns, and for other reasons, our customers may be required to cease mining operations without much or any prior notice by a national or local government’s formal or informal requirement or because of the anticipation of an impending requirement. For example, due to the most recent power shortage and political unrest in Central Asia, some Bitcoin mining farms temporarily suspended mining activities in Central Asia. Our business, financial condition and results of operations may be materially and adversely affected by these adverse changes in the regulatory and policy environment in the markets where we sell our Bitcoin mining machines and related parts and accessories.

Some of our operating subsidiaries have a limited operating history, which makes it hard for us to evaluate their ability to generate revenue through operations, and to date, none of them has generated significant revenues.

Some of our operating subsidiaries were recently formed in recent years to explore the global markets for our products. Their limited operating history makes it difficult for us to evaluate their current business and future prospects. They have encountered, and will continue to encounter, risks and difficulties frequently experienced by growing companies in rapidly developing and changing industries, including challenges in forecasting accuracy, determining appropriate uses of their limited resources, gaining market acceptance, managing a complex and evolving regulatory landscape and developing new products. These subsidiaries' current or future operating model may require changes in order for them to scale their operations efficiently and be successful. Investors in our ADSs should consider the business and prospects of our subsidiaries in these countries in light of the risks and difficulties they face as early-stage companies.

Changes in the Bitcoin algorithm or the mining mechanism may materially and adversely affect our business and results of operations.

Our ASICs for Bitcoin mining machines are designed for the POW mechanism that the Bitcoin network uses to validate Bitcoin transactions. Another cryptocurrency that uses the POW mechanism is known as "Bitcoin cash," developed in mid-2017, which our current Bitcoin mining machines can also mine. Many people within the Bitcoin community believe that POW is a foundation within Bitcoin's code that should not be changed. However, there have been debates on mechanism change to avoid the "de facto control" by a great majority of the network computing power. With the possibility of a change in rule or protocol of the Bitcoin network, if our Bitcoin mining machines cannot be modified to accommodate any such changes, our Bitcoin mining machines will not be able to meet customer demand, and the results of our operations will be significantly affected. For more details, see "—The acceptance of Bitcoin network software patches or upgrades by a significant, but not overwhelming, percentage of the users and miners in the Bitcoin network could result in a "fork" in the blockchain, resulting in the operation of two separate networks that cannot be merged. The existence of forked blockchains could erode user confidence in Bitcoin and adversely impact our business, results of operations and financial condition."

Substantial increases in the supply of mining machines connected to the Bitcoin network would lead to an increase in network capacity, which in turn would increase mining difficulty. This development would negatively affect the economic returns of Bitcoin mining activities, which would decrease the demand for and/or pricing of our products.

The difficulty of Bitcoin mining, or the amount of computational resources required for a set amount of reward for recording a new block, directly affects the expected economic returns for Bitcoin miners, which in turn affects the demand for our Bitcoin mining machines. Bitcoin mining difficulty is a measure of how much computing power is required to record a new block and it is affected by the total amount of computing power in the Bitcoin network. The Bitcoin algorithm is designed so that one block is generated, on average, every ten minutes, no matter how much computing power is in the network. Thus, as more computing power joins the network, and assuming the rate of block creation does not change (remaining at one block generated every ten minutes), the amount of computing power required to generate each block and hence the mining difficulty increases. In other words, based on the current design of the Bitcoin network, Bitcoin mining difficulty would increase together with the total computing power participating in the Bitcoin network, which is in turn affected by the number of Bitcoin mining machines in operation and their respective computing power per unit.

Additionally, the amount of Bitcoin awarded for solving each block is designed to decline approximately every four years, with the most recent halving event occurred in April 20, 2024. A strong growth in Bitcoin mining machines connected online can contribute to further growth in the total computing power in the network, thereby driving up the difficulty of Bitcoin mining and coupled with the decrease in Bitcoin reward per participated computing power unit, resulting in downward pressure on the expected economic return of Bitcoin mining and the demand for, and pricing of, our products, under the assumption that the price of Bitcoin does not increase enough.

We may be unable to make the substantial research and development investments that are required to remain competitive in our business.

Advances in edge computing technology, Bitcoin mining technology and the semiconductor industry have led to increased demand for ICs of higher speed and power efficiency for solving computational problems of increasing complexity. In 2022, 2023 and 2024, we incurred research and development expense of US\$81.8 million, US\$64.8 million and US\$61.3 million, respectively. We are committed to investing in new product development in order to stay competitive in our markets. Driven by market demand, we intend to continue to broaden and enhance our product portfolio in order to deliver the most effective solutions to our customers. Nevertheless, if we are unable to generate enough revenue or raise enough capital to make adequate research and development investments going forward, our product development and relevant research and development initiatives may be restricted or delayed, or we may not be able to keep pace with the latest market trends and satisfy our customers' needs, which could materially and adversely affect our results of operations. Furthermore, our substantial research and development expenditures may not yield the expected results that enable us to roll out new products, which in turn will harm our prospects and results of operations.

We face intense competition and our competitors may employ aggressive pricing strategies, which can lead to a price reduction of our products and material adverse effect on our results of operations.

We operate in highly competitive industries for Bitcoin mining machines and edge computing products, and we may look to enter into markets with very competitive landscapes. Our competitors include many well-known domestic and international players, and we face competitors that are larger than us and have advantages over us in terms of economies of scale and financial and other resources. We expect that competition in our markets will continue to be intense, as we compete not only with existing players that have been focusing on Bitcoin mining or edge computing, but also new entrants that include well-established players in the semiconductor industry, or players who have not been predisposed to this industry in the past. Some of these competitors may also have stronger brand names, greater access to capital, longer histories, longer relationships with their suppliers or customers and more resources than we do. Furthermore, these competitors may be able to adapt to changes in the industry more promptly and efficiently. Intense competition from existing and potential competitors could result in material price reductions in the products we sell or a decrease in our market share. Aggressive pricing strategies by our competitors and an abundant supply of Bitcoin mining machines or edge computing products in the market may cause us to reduce the prices of our products and also negatively affect the demand for our products or harm our profitability. If we fail to compete effectively and efficiently or fail to adapt to changes in the competitive landscape, our business, financial condition and results of operations may be materially and adversely affected.

Our Bitcoin mining machine business depends on supplies from limited numbers of third-party foundry partners, and any failure to obtain sufficient foundry capacity from these third-party foundry partners would significantly delay the shipment of our products.

As a fabless IC design company, we do not own any IC fabrication facilities and outsource the fabrication process of our ICs to third-party foundry partners. In 2022, the value of the wafers we purchased from the three major third-party foundry partners accounted for 76.2% of our total procurement of the year ended December 31, 2022. In 2023, the value of the wafers we purchased from one major third-party foundry partner accounted for 55.2% of our total procurement of the year ended December 31, 2023. In 2024, the value of the wafers we purchased from one major third-party foundry partner accounted for 64.0% of our total procurement of the year ended December 31, 2024. It is important for us to have a reliable relationship with our current and future third-party foundry partners to ensure adequate product supply to respond to customer demand.

As we rely on limited numbers of third-party foundry partners, we cannot guarantee that they will be able to meet our manufacturing requirements. The ability of our third-party foundry partners to provide us with foundry services is limited by their technology migration, available capacity, existing obligations and global semiconductor supply, and is subject to evolving international trade regulations, export control restrictions, and geopolitical developments that may impact the global semiconductor supply chain. If these third-party foundry partners fail to succeed in their technology migration or secure enough semiconductors, they will not be able to deliver to us qualified ICs in a sufficient amount, which will significantly affect our technological advancement and shipment of Bitcoin mining machines. This could in turn result in lost sales and have a material adverse effect on our relationships with our customers and on our business and financial condition.

In addition, we depend on our third-party foundry partners to allocate to us a portion of their manufacturing capacity sufficient to meet our needs, to produce products of acceptable quality and at acceptable final test yields and to deliver those products to us on a timely basis and at acceptable prices. If our third-party foundry partners raise their prices or are unable to meet our required capacity for any reason, such as shortages or delays in the shipment of semiconductor equipment or raw materials required to manufacture our ICs, or if our business relationships with them deteriorate, we may not be able to obtain the required capacity and would have to seek alternative foundries, which may not be available on commercially reasonable terms, or at all. Moreover, it is possible that other customers of our third-party foundry partners that are larger and/or better financed than we are, or that have long-term contracts with them, may receive preferential treatment in terms of capacity allocation or pricing. In addition, if we do not accurately forecast our capacity needs, our third-party foundry partners may not have available capacity to meet our immediate needs or we may be required to pay higher costs to fulfill those needs, either of which could materially and adversely affect our business, operating results or financial condition.

In particular, the production of our ASICs may require advanced IC fabrication technologies, and foundries other than our third-party foundry partners might not have sufficient production capacity for such technologies, if at all, to meet our requirements. This may expose us to risks associated with engaging new foundries. For example, using foundries with which we have not established relationships could expose us to potentially unfavorable pricing, unsatisfactory quality or insufficient capacity allocation. We have historically contracted with a single foundry for a specific generation of our ASICs, which means that the failure, for whatever reason, of a single third-party foundry partner could materially and adversely affect a whole generation of our products.

Other risks associated with our dependence on a few third-party foundry partners include limited control over delivery schedules and quality assurance, lack of capacity in periods of excess demand, unauthorized use of our intellectual property and limited ability to manage inventory and parts. In particular, although we have entered into confidentiality agreements with our third-party foundry partners for the protection of our intellectual property, it may not protect our intellectual property with the same degree of care as we use to protect our intellectual property. See “—If we fail to adequately protect our IP rights, our ability to compete effectively or to defend ourselves from litigation could be impaired, which could reduce our total revenue and increase our costs.” If we fail to properly manage any of these risks, our business and results of operations may be materially and adversely affected.

Moreover, if any of our third-party foundry partners suffers any damage to its facilities, suspends manufacturing operations, loses benefits under material agreements, experiences power outages or computer virus attacks, lacks sufficient capacity to manufacture our products, encounters financial difficulties, is unable to secure necessary raw materials from its suppliers or suffers any other disruption or reduction in efficiency, we may encounter supply delays or disruptions.

Failure to maintain inventory levels in line with the approximate level of demand for our products could cause us to lose sales, expose us to increased inventory risks and subject us to increases in holding costs, risk of inventory obsolescence, increases in markdown allowances and write-offs, any of which could have a material adverse effect on our business, financial condition and results of operations.

To operate our business successfully and meet our customers’ demands and expectations, we must maintain a certain level of finished goods inventory to ensure immediate delivery when required. Furthermore, we are required to maintain an appropriate level of inventory of parts and components for our production. However, forecasts are inherently uncertain. If our forecasted demand is lower than actual demand, we may not be able to maintain an adequate inventory level of our finished goods or produce our products in a timely manner, and we may lose sales and market share to our competitors. On the other hand, we may also be exposed to increased inventory risks due to accumulated excess inventory of our products or raw materials, parts and components for our products. Excess inventory levels may lead to increases in inventory holding costs, risks of inventory obsolescence and write-down. We recorded inventories write-down, prepayment write-down and provision for inventory purchase commitments of US\$93.6 million, US\$190.2 million and US\$100.6 million in 2022, 2023 and 2024, respectively. The carrying value of our inventories was US\$211.6 million, US\$142.3 million and US\$94.6 million as of December 31, 2022, 2023 and 2024, respectively.

The average selling prices of our products may decrease from time to time due to technological advancement and we may not be able to pass onto our suppliers such decreases, which may in turn adversely affect our profitability.

The IC design industry is characterized by rapid launches of new products, continuous technological advancements and changing market trends and customer preferences, all of which translate to a shorter life cycle and a gradual decrease in the average selling prices of products over time. Because we compete in the environment of rapidly-evolving technology advancement and market trends and developments of the IC design industry, there are no assurances that we will be able to pass on any decrease in average selling prices of our products to our suppliers. In the event that average selling prices of our products unusually or significantly decrease and such decreases cannot be offset by a corresponding decrease in the prices of the principal components of our products, our gross profit margins may be materially and adversely affected, which in turn, may adversely affect our profitability.

Our limited operating history and rapid revenue growth may make it difficult for us to forecast our business and assess the seasonality and volatility in our business.

As the markets for Bitcoin mining machines and edge computing chip applications are relatively young and still developing, we cannot forecast longer-term demand or order patterns for our products. Because of our limited operating history and historical data, as well as the limited visibility into future demand trends for our products, we may not be able to accurately forecast our future total revenue and budget our operating expenses accordingly. As most of our expenses are fixed in the short-term or incurred in advance of anticipated total revenue, we may not be able to adjust our expenses in a timely manner in order to offset any shortfall in revenue.

Our business is subject to the varying order patterns of the Bitcoin mining machine and edge computing products markets. In addition, many of the regions in which our products are purchased have varying holiday seasons that differ from traditional patterns observed by other semiconductor suppliers and these seasonal buying patterns can impact our sales. We have experienced fluctuations in orders during our limited operating history, and we expect such volatility to occur in the future. Though we have experienced significant revenue growth in the past, there is no guarantee that our revenue will continue to grow or at all. If we or any of our third-party manufacturing service providers are unable to increase production of new or existing products to meet any increases in demand due to seasonality or other factors, our total revenue would be adversely affected and our reputation with our customers may be damaged. Conversely, if we overestimate customer demand, we may reduce our orders or delay shipments of our products from units forecasted, and our total revenue in a particular period could be lower than expected.

We may be unable to execute our growth strategies or effectively maintain our rapid growth trends.

Historically, we have grown our scale of operations rapidly while our revenues experienced fluctuations due to, among others, the fluctuations of Bitcoin prices. We may not be able to grow our revenue in the future if we are not able to successfully execute our product development and diversification, geographic expansion and other growth plans. In addition, our rapid growth has placed and will continue to place significant demands on our management and our administrative, operational, research and development and financial resources.

To accomplish our growth strategies and manage the future growth of our operations, we will be required to enhance our research and development capabilities, improve our operational and financial systems, and expand, train and manage our growing and diversifying employee base. Furthermore, we need to maintain and expand our relationships with our customers, suppliers, research institutions, third-party manufacturers and other third parties. Moreover, as we introduce new products or enter new markets, we may face new market, technological, operational and regulatory risks and challenges with which we are unfamiliar.

Our current and planned operations, personnel, systems, internal procedures and controls may not be adequate to support our future growth and expansion. In addition, the success of our growth strategies depends on a number of external factors, such as the growth of the semiconductor market and the demand for Bitcoin, the level of competition we face and evolving customer behavior and preferences. If we are unable to execute our growth strategies or manage our growth effectively, we may not be able to capture market opportunities or respond to competitive pressures, which may materially and adversely affect our business prospects and results of operations.

We rely on limited numbers of third parties to package and test our products.

In addition to IC fabrication, we rely on a limited number of production partners for the testing and packaging of our ASICs. Reliance on these third parties for the testing and packaging of our ASICs presents significant risks to us, including the following:

- limited control over delivery schedules, quality assurance, final test yields and production costs;
- potential failure to obtain, or delay in obtaining, key process technologies;
- failure by us to find an alternative supplier in response to evolving international trade rules or export restrictions;
- capacity shortages during periods of high demand;
- shortages of materials;
- unauthorized use of our IP;
- limited warranties on ICs or products supplied to us; and

The ability and willingness of our production partners to adequately and timely perform is largely beyond our control. If one or more of these production partners fails to perform their obligations in a timely manner or at satisfactory quality levels, our ability to bring products to market and our reputation could suffer. If these production partners fail to deliver quality products and components to us on time and at reasonable prices, we could face difficulties in fulfilling our customers' orders, our total revenue could decline and our business, financial condition and results of operations would be adversely affected.

Bitcoin exchanges and wallets, and to a lesser extent, the Bitcoin network itself, may suffer from hacking and fraud risks, which may adversely erode user confidence in Bitcoin which would decrease the demand for our Bitcoin mining machines.

Bitcoin transactions are entirely digital and, as with any virtual system, are at risk from hackers, malware and operational glitches. Hackers can target Bitcoin exchanges and Bitcoin transactions, to gain access to thousands of accounts and digital wallets where Bitcoins are stored. Bitcoin transactions and accounts are not insured by any type of government program and all Bitcoin transactions are permanent because there is no third party or payment processor. Bitcoin has suffered from hacking and cyber-theft as such incidents have been reported by several cryptocurrency exchanges and miners, highlighting concerns about the security of Bitcoin and therefore affecting its demand and price. Also, the price and exchange of Bitcoin may be affected due to fraud risk. While Bitcoin uses private key encryption to verify owners and register transactions, fraudsters and scammers may attempt to sell false Bitcoins. All of the above may adversely affect the operation of the Bitcoin network which would erode user confidence in Bitcoin, which would negatively affect demand for our products.

We have incurred negative cash flows from operating activities and net losses in the past and can provide no assurance of our future operating results.

In 2022, we generated net income of US\$69.9 million, while experienced negative cash flow from operating activities of US\$182.6 million. In 2023, we incurred negative cash flow from operating activities of US\$123.6 million and a net loss of US\$414.2 million. In 2024, we incurred negative cash flow from operating activities of US\$199.3 million and a net loss of US\$249.8 million. We cannot assure you that we will be able to generate positive cash flow from operating activities in the future or that we will be able to continue to obtain financing on acceptable terms or at all. Our ability to achieve profitability and positive cash flow from operating activities will depend on a mix of factors, some of which are beyond our control, including the price of Bitcoin, up-front investment for our mining business, our ability to grow our edge computing business and manage our product mix and our ability to secure favorable commercial terms from suppliers.

Shortages in, or increases in the prices of, the components of our products may adversely affect our business.

In addition to our proprietary ASICs, the components we use for our Bitcoin mining machines include printed circuit board, other electronic components, fans and aluminum casings. The use of our Bitcoin mining machines also requires certain ancillary equipment and components such as controllers, power adaptors and connectors. The production of our current Bitcoin mining machines depends on obtaining adequate supplies of these components on a timely basis and at competitive prices. We do not typically maintain large inventories of components, but rather we purchase them on a just-in-time basis from various third-party component manufacturers that satisfy our quality standards and meet our volume requirements. Given the long lead times that may be required to manufacture, assemble and deliver certain components and products, problems could arise in planning production and managing inventory levels that could seriously interrupt our operations, including the possibility of defective parts, an increase in component costs, delays in delivery schedules, and shortages of components. Furthermore, we may have to turn to less reputable suppliers if we cannot source adequate components from our regular suppliers. Under such circumstances, the quality of the components may suffer and could cause performance issues in our Bitcoin mining machines.

Shortages of components could result in reduced production or delays in production, as well as an increase in production costs, which may negatively affect our abilities to fulfill orders or make timely shipments to customers, as well as our customer relationships and profitability. Component shortages may also increase our costs of revenue because we may be required to pay higher prices for components in short supply, not being able to pass such costs to customers, and redesign or reconfigure products to accommodate substitute components.

Our prepayments to suppliers may subject us to counterparty risk associated with such suppliers and negatively affect our liquidity and cash position.

We may incur net cash outflows at an early stage of our production because we are required to prepay our third-party foundry partners before the service is provided in order to secure the third-party foundry partners' production capacity. As of December 31, 2022, 2023 and 2024, the outstanding balance of prepayments we made to our third-party foundry partners amounted to US\$150.6 million, US\$37.7 million and US\$10.3 million, respectively. The amount of our prepayments can significantly increase at the beginning of our launch of advanced products in the future. We are subject to counterparty risk exposure to our suppliers. Any failure by our suppliers to perform their contractual obligations in a timely manner and/or in accordance with our requested quality may result in us not being able to fulfill customers' orders accordingly. In such event, we may not be able to receive back the prepayments in a timely manner or in full, notwithstanding that our suppliers are obligated to return such prepayments upon meeting certain conditions. Furthermore, such prepayments also put cash pressure on us and if the cash outflows for the prepayments significantly exceed the cash inflows during any period, our future liquidity and cash position will be adversely affected.

If we experience difficulty in collecting our trade receivables, our liquidity, financial condition and results of operations would be negatively impacted.

We derive our revenues from the sale of products and are subject to counterparty risks such as our customer's inability to pay. As of December 31, 2022, 2023 and 2024, our trade receivables amounted to nil, US\$3.0 million and US\$1.5 million, respectively. We may have trade receivables in the future and there can be no assurance that we will be able to collect our trade receivables on a timely basis, and our trade receivable turnover days may increase, which in turn could materially and adversely affect our liquidity, financial condition and results of operations.

Failure at tape-out or failure to achieve the expected final test yields for our ASICs could negatively impact our operating results.

The tape-out process is a critical milestone in our business. A successful tape-out means all the stages in the design and verification process of our ASICs have been completed, and the product is ready to be sent for manufacturing. A tape-out is either a success or a failure, and in the latter case design modifications are needed. The tape-out process is very costly, and repeated failures can significantly increase our costs, lengthen our product development period and delay our product launch. While we have achieved multiple tape-out in the initial batch historically, we cannot assure you that we will be able to continue to have a high tape-out success rate in the future.

Once tape-out is successful, the ASIC design is sent for manufacturing, and the final test yield is a measurement of the production success rate. The final test yield is a function of both product design, which is developed by us, and process technology, which typically belongs to a third-party foundry. While we have historically achieved high final test yields, we cannot assure you that we will be able to maintain such yields in the future. Low final test yields can result from either a product design deficiency or a process technology failure or a combination of both. As such, we may not be able to identify problems causing low final test yields until our product designs go to the manufacturing stage, which may substantially increase our per unit costs and delay the launch of new products.

For example, if any of our third-party foundry partners experiences manufacturing inefficiencies or encounters disruptions, errors or difficulties during production, we may fail to achieve acceptable final test yields or experience product delivery delays. We cannot be certain that such third-party foundry partner will be able to develop, obtain or successfully implement process technologies needed to manufacture future generations of our products on a timely basis. Moreover, during the periods in which foundries are implementing new process technologies, their manufacturing facilities may not be fully productive. A substantial delay in the technology transitions to smaller geometry process technologies could have a material and adverse effect on us, particularly if our competitors transition to such technologies before us.

In addition, resolution of yield problems requires cooperation among us, our third-party foundry partners and package and test partners. We cannot assure you that the cooperation will be successful and that any yield problems can be fixed.

The acceptance of Bitcoin network software patches or upgrades by a significant, but not overwhelming, percentage of the users and miners in the Bitcoin network could result in a “fork” in the blockchain, resulting in the operation of two separate networks that cannot be merged. The existence of forked blockchains could erode user confidence in Bitcoin and could adversely impact our business, results of operations and financial condition.

Bitcoin is based on open source software and has no official developer or group of developers that formally controls the Bitcoin network. Any individual can download the Bitcoin network software and make any desired modifications, which are proposed to users and miners on the Bitcoin network through software downloads and upgrades. However, miners and users must consent to those software modifications by downloading the altered software or upgrade implementing the changes; otherwise, the changes do not become part of the Bitcoin network. Since the Bitcoin network’s inception, changes to the Bitcoin network have been accepted by the vast majority of users and miners, ensuring that the Bitcoin network remains a coherent economic system. However, a developer or group of developers could potentially propose a modification to the Bitcoin network that is not accepted by a vast majority of miners and users, but that is nonetheless accepted by a substantial population of participants in the Bitcoin network. In such a case, a fork in the blockchain could develop and two separate Bitcoin networks could result, one running the pre-modification software program and the other running the modified version. An example is the introduction of a cryptocurrency known as “Bitcoin cash” in mid-2017. This kind of split in the Bitcoin network could erode user confidence in the stability of the Bitcoin network, which could negatively affect the demand for our products.

Edge computing technologies are constantly evolving, and any flaws in or misuse of edge computing technologies, even if committed by other third parties, could have a negative impact on our business, reputation, brands and the general acceptance of edge computing solutions by society.

Edge computing technologies are still in a preliminary stage of development and are constantly evolving. As with many disruptive innovations, edge computing technologies present risks and challenges that could affect user perception and its adoption. Any flaws in or insufficiencies of edge computing technologies, and any inappropriate or premature usage thereof, whether actual or perceived, and whether by us or by other third parties, may dissuade prospective customers from adopting edge computing solutions, and may impair the general acceptance of edge computing technologies by society. Moreover, edge computing technologies are covered extensively, and in many instances critically, by various news media across the world. There is no assurance that our edge computing products will not be misused or applied in a way that is inconsistent with public expectations. Any misuse of our edge computing technologies, whether actual or perceived, and whether by us or by other third parties, could negatively impact our brands and reputation, and in turn our business, financial condition and results of operation.

If we fail to succeed in the edge computing chip market or other new application markets we seek to penetrate into, our revenues, growth prospects and financial condition could be adversely affected.

While we have been developing our edge computing chip business, sales of Bitcoin mining machines continue to account for a substantial majority of our total revenue. Our edge computing chip revenue was US\$1.4 million, US\$1.0 million and US\$0.9 million for the years ended December 31, 2022, 2023 and 2024, respectively. Our future revenue growth of our edge computing chip business will depend largely on our ability to successfully expand our business in the edge computing chip market and penetrate into new application markets. We cannot predict how or to what extent the demand for our products will develop going forward. Furthermore, as ASICs may not develop into mainstream solutions for edge computing technologies and applications, we might not be able to capitalize on the growth in the market for edge computing technologies and applications with our ASICs. If the edge computing chip market does not develop as we currently anticipate and we are unable to penetrate into new application markets, our future revenue and profits could be adversely affected.

We plan to work closely with our partners in product development to enhance our visibility in new market trends and meet customer demand by devoting more resources to research and development. We may also need to recruit more employees for research and development and product development, such as software engineers. We intend to continue to capitalize on market opportunities for introducing new product applications and conduct advance planning for our next-generation products in a timely manner. However, if we fail to penetrate into any of these or other new markets to which we devote our resources, we may not be able to generate returns on our investments and our financial condition could suffer.

Any failure of our products to meet the necessary quality standards could adversely affect our reputation, business and results of operation.

The quality of our products is critical to the success of our business and depends significantly on the effectiveness of our and our manufacturing service providers' quality control systems. In our efforts to quickly meet new market trends and demand and adopt new technologies, our products may not have adequate time to go through our normal rigorous testing procedures and final inspection, which could result in instances where our products cannot reach the required performance standard, or our products are found to be defective. These instances could result in our customers suffering losses. Defects detected before product delivery to our customers may result in additional costs for remediation and rework. Defects detected after the delivery and installation of our products may result in our incurring further costs relating to inspection, installation, remediation or product return, which may result in damages to our reputation, loss of customers, government fines and disputes and litigation.

In addition, we outsourced to certain production partners a portion of our product manufacturing process, which require them to purchase parts and components from other third-party suppliers. Although we carry out quality inspections for the manufacturing process and the parts and components purchased, we cannot assure you that we will always be able to detect defects in the manufacturing process or the parts and components purchased. Any defect in such manufacturing process or parts and components purchased may lead to defects in our finished products, which may in turn increase our costs as well as damage our reputation and market share. We may not be able to procure contractual or other indemnities from the suppliers of the defective parts and components adequately, or at all. We may be subject to product liability claims and litigation for compensation, which could result in substantial and unexpected expenditures and could materially and adversely affect our cash flow and operating results.

Our Bitcoin mining machines use open source software and hardware as their basic controller system, which may subject us to certain risks.

We use open source software and hardware in our Bitcoin mining machines. We may face claims from others claiming ownership of, or seeking to enforce the terms of, an open source license, including by demanding the release of the open source software, derivative works or our proprietary source code that was developed using such software. These claims could also result in litigation, requiring us to purchase a costly license or to devote additional research and development resources to change our technologies, either of which would have a negative effect on our business and operating results. In addition, if the license terms for the open source software we utilize change, we may be forced to re-engineer or discontinue our solutions or incur additional costs.

If we are unable to maintain or enhance our brand recognition, our business, financial condition and results of operations may be materially and adversely affected.

Maintaining and enhancing the recognition, image and acceptance of our brand are important to our ability to differentiate our products from and to compete effectively with our peers. Our brand image, however, could be jeopardized if we fail to maintain high product quality, pioneer and keep pace with evolving technology trends, or timely fulfill the orders for our products. If we fail to promote our brand or to maintain or enhance our brand recognition and awareness among our customers, or if we are subject to events or negative allegations affecting our brand image or the publicly perceived position of our brand, our business, operating results and financial condition could be adversely affected.

Power shortages, labor disputes and other factors may result in constraints on our production activities.

In March 2022, the COVID-19 resurgence, together with the resulting travel restrictions and quarantine measures, caused disruptions in the operations of our assembly plant in the PRC, which resulted in delays in the shipment of products to certain of our customers. There can be no assurance that our operations will not be further materially affected by power shortages, labor disputes, pandemics (e.g. COVID-19) or other factors in the future, thereby causing material production disruptions and delays in our delivery schedule. In such event, our business, results of operations and financial condition could be materially and adversely affected.

We lack a significant operating history in the Bitcoin mining space, and our strategic focus on this relatively new business is subject to a number of significant risks and uncertainties that could affect our future viability.

We have adopted a strategy managing our Bitcoin mining operations in international markets through collaboration with cryptocurrency mining operators. However, there is a significant risk that we will be unable to achieve the anticipated benefits from such strategic collaborations, which would damage our business and could lead to the loss of our investment in Bitcoin mining, for a variety of reasons, including, among others:

- Because of supply chain disruptions resulting from the COVID-19 pandemic or geopolitical crises, we could in the future encounter delivery delays or other difficulties with the installing and operating our mining machines at the facility of our partners;
- Due to the environmental-impact concerns related to the potential high demand for electricity to support bitcoin mining activity and political concerns, and for other reasons, our partners may be required to cease mining operations without any prior notice by a national or local government's formal or informal requirement or because of the anticipation of an impending requirement;
- Bans from governments, together with pending legislation and other regulatory initiatives, may threaten the ability to use Bitcoin or cryptocurrencies as a medium of exchange;
- We may not be able to liquidate our holdings of Bitcoin at our desired prices if a precipitous decline in market prices occurs and this could negatively impact our future operations; and
- Our efforts may not provide the expected benefits in our anticipated time frame, if at all, and may prove more costly than expected, and we may be subject to the risks of adverse effects to our business, results of operations and liquidity if past and future undertakings and the associated changes to our business, do not prove to be cost effective or result in the cost savings and other benefits at the levels that we anticipate. Our intentions and expectations with regard to the execution of our business plan and the timing of any related initiatives, are subject to the change at any time based on management's subjective evaluation of our overall business needs; and
- Our collaboration with mining farms may not be successful. In 2023, we were involved in several disputes with mining partners concerning the quality of service we received. If our joint mining partners are unable to provide services at the level we expect, this could negatively impact the results of our joint mining operations.

For all of these reasons, our plan to develop Bitcoin mining business may ultimately not be successful or will not achieve viable business scale or market acceptance.

As we enter into the Bitcoin mining business, we will be subject to risks associated with our need for significant electrical power.

Bitcoin mining operations require significant amounts of electrical power, and, as we enter into Bitcoin mining business, we anticipate our demand and/or our partners' demand for electrical power will grow significantly. If we or our partners are unable to obtain sufficient electrical power on a cost-effective basis, we may not realize the anticipated benefits of our significant capital investments in the Bitcoin mining business.

Our Bitcoin mining business may also be materially adversely affected by the restrictions of government regulators in the jurisdictions where we operate on the energy usage of Bitcoin mining. Government regulators may restrict the ability of electricity suppliers to provide electricity to Bitcoin mining operations in times of electricity shortage, or may otherwise potentially restrict or prohibit the provision of electricity to Bitcoin mining operations. Moreover, if Bitcoin mining becomes more widespread, government scrutiny related to restrictions on Bitcoin mining facilities and their energy consumption may significantly increase. The considerable consumption of electricity by Bitcoin mining operation may also have a negative environmental impact, including contribution to climate change, which could set the public opinion against allowing the use of electricity for Bitcoin mining activities or create a negative consumer sentiment and perception of Bitcoin, specifically, or cryptocurrencies, generally. This, in turn, could lead to governmental measures restricting or prohibiting Bitcoin mining or the use of electricity for Bitcoin mining activities. Additionally, our mining operations could be materially adversely affected by power outages and similar disruptions. Given the power requirements for our Bitcoin mining machines, it would not be feasible to run our machines on back-up power generators in the event of a government restriction on electricity or a power outage. If we are unable to receive adequate power supply and are forced to reduce our operations due to the unavailability or cost of electrical power, it would have a material adverse effect on our business, prospects, financial condition and operating results.

We have a limited history in the operation of mining facilities.

Our mining strategy presently includes the ownership and operation of facilities by us. We selectively explore new business initiatives that synergize with our existing businesses. We have limited operating history as the owner and operator of a mining facility, and our prospects in operating mining facilities are subject to a number of uncertainties, including the cost of site acquisition, development of operational expertise, ongoing operational costs, and other risks that may not presently be foreseen. As such, our limited history under the current business model may not serve as an adequate basis for evaluating our prospect and future operating and financial results, including, among others, our revenue growth, operating cash flows and operating margins.

We have encountered, and may continue to encounter, risks, challenges and uncertainties associated with the operation of mining facilities, such as ensuring the effectiveness of our sales and marketing efforts, improving and expanding our product and service offerings, addressing regulatory compliance and uncertainty, engaging and retaining high-quality staff, and building and managing reliable and secure IT systems and infrastructure. If we are unable to adequately address these challenges, our prospects and results of operations could be materially adversely affected.

If we fail to adequately protect our IP rights, our ability to compete effectively or to defend ourselves from litigation could be impaired, which could reduce our total revenue and increase our costs.

We rely primarily on a combination of protections provided by patent, IC layout and design rights, copyright, trademark and trade secret laws, as well as confidentiality, non-compete and non-disclosure agreements and other means for protecting our proprietary technologies and know-how.

However, we cannot assure you that the strategies and steps we are taking are sufficient to protect our intellectual property rights or that, notwithstanding legal protection, others do not or will not infringe or misappropriate our intellectual property rights. If we fail to adequately protect our intellectual property rights, or if changes in laws diminish or remove the current legal protections available to them, the competitiveness of our products may be eroded and our business could suffer. The rights granted to us under our patents, IC layout-design rights and copyrights, including prospective rights sought in our pending patent applications, may not be meaningful or provide us with any commercial advantage. In addition, they could be opposed, contested, circumvented or designed around by our competitors or be declared invalid or unenforceable in judicial or administrative proceedings. Any failure of our patents, IC layout-design rights and copyrights to adequately protect our technologies may allow our competitors to offer similar products or technologies. We may not be able to protect our IP rights in some countries where our products are sold or may be sold in the future. Even if IP rights are granted, effective enforcement in those countries may not be available to us, primarily due to the relatively weak legal regime protecting IP rights in those countries and the difficulties to defend and enforce such rights. Accordingly, we may not be able to effectively protect our IP rights in those countries. Many companies have encountered substantial intellectual property infringement in countries where we sell or intend to sell our products.

Monitoring unauthorized use of our IP is difficult and costly. Unauthorized use of our IP may have occurred or may occur without our knowledge. Any failure by us to effectively protect our IP could reduce the value of our technologies and impair our ability to compete. We may in the future need to initiate infringement claims or litigation. Litigation can be expensive and time-consuming and may divert the efforts of our technical staff and managerial personnel, which could result in lower total revenue and higher expenses, whether or not such litigation results in a determination favorable to us.

We may face IP infringement claims or other related disputes, which could be time-consuming, costly to defend or settle and result in the loss of significant rights and lower sales.

As is typical in the semiconductor industry, we may be subject to infringement claims from time to time or otherwise become aware of potentially relevant patents or other IP rights held by other parties that may cover some of our technology, products and services. The semiconductor industry is characterized by companies that hold large numbers of patents and other IP rights and that vigorously pursue, protect and enforce these rights. Patent litigation has increased in recent years owing to increased assertions made by IP licensing entities and increasing competition and overlap of product functionality in our markets. Additionally, we have in the past entered and may continue in the future to enter into licensing agreements with third parties for the use of their proprietary technologies, primarily software development tools, in the development of our products. As with any business relationship, we may face disputes and lawsuits related to those IP licensing agreements. As our operations continue to grow in size and scale, the likelihood of us becoming involved in IP related lawsuits and disputes to protect or defend our IP rights and the use of third-party IP rights will increase.

In addition, it is extremely difficult for us to monitor all of the patent applications that have been filed in the PRC, the United States or in other countries or regions and whether, if such pending patents are granted, such patents would have a material and adverse effect on our business if our product and service offering were to infringe upon them.

Other third parties may file claims against us or our customers alleging that our products, processes, or technologies infringe third-party patents or IP rights. Regardless of their merits or resolutions, such claims could be costly to defend or settle and could divert the efforts and attention of our management and technical personnel. In addition, some of our customer agreements in the future may require us to indemnify and defend our customers from third-party infringement claims and to pay damages in the case of adverse rulings. As such, claims of this sort also could harm our relationships with our customers and may deter future customers from doing business with us. We do not know whether we could prevail in any such proceeding given the complex technical issues and inherent uncertainties involved in IP litigation. If any pending or future proceedings result in an adverse outcome, we could be required to:

- cease the manufacturing, use or sale of the infringing products, processes or technologies;
- stop shipment to certain geographic areas;
- pay substantial damages for infringement;
- expend significant resources to develop non-infringing processes, technologies or products;
- license technology from the third-party claiming infringement, which license may not be available on commercially reasonable terms, or at all;
- cross-license our technology to a competitor in order to resolve an infringement claim, which could weaken our ability to compete with that competitor; or
- pay substantial damages to our customers to discontinue their use of or replace infringing products sold to them with non-infringing products.

Any of the foregoing results could have a material adverse effect on our business, financial condition and results of operations.

The loss of any member of our senior management team, or our failure to attract, train and retain qualified personnel, especially our design and technical personnel, could impair our ability to grow our business and effectively execute our business strategy.

Since our inception, the growth and expansion of our business operations have been dependent upon the business strategies and foresight of our senior management. Our future success depends, in large part, on the continued contributions of our senior management team, especially Mr. Nangeng Zhang.

In addition, our future success depends on our ability to retain, attract and incentivize qualified personnel, including our management, sales, marketing, finance and especially research and development personnel. As the driver of our technological and product innovations, our research and development personnel represent a very significant asset of ours. As the technology in the semiconductor industry is advancing at a quick pace, there is an increasing need for skilled engineers. Many companies across the world are struggling to find suitable candidates for their research and development positions. The process of hiring employees with the combination of skills and characteristics required to implement our strategy can be extremely competitive and time-consuming. We cannot assure you that we will be able to attract adequate personnel as we continue to pursue our business strategies.

Moreover, we cannot assure you that we will be able to retain key existing employees. The loss of any of our senior management or research and development team members could harm our ability to implement our business strategies and respond to the rapidly changing market conditions in which we operate, or could result in other operating risks. The loss of one or more of our key employees, especially our key design and technical personnel which includes our co-founders, or our inability to retain, attract and motivate qualified design and technical personnel, could have a material adverse effect on our business, financial condition and results of operations.

Our corporate actions are significantly influenced by our principal shareholders, including Mr. Nangeng Zhang, our chairman and chief executive officer, who have the ability to exert significant influence over important corporate matters that require approval of shareholders while their interests may differ from those of the other shareholders. This may deprive you of the opportunity to receive a premium for your ADSs and materially reduce the value of your investment.

Our share capital is designated into Class A ordinary shares, Class B ordinary shares and Series A Preferred Shares. Each Class A ordinary share is entitled to one vote and each Class B ordinary share is entitled to 15 votes at general meetings of our shareholders. No voting rights are carried by the Series A Preferred Shares. Mr. Nangeng Zhang, our chairman and chief executive officer, beneficially own 100% of our Class B ordinary shares, representing approximately 46.2% of the aggregate voting power of our issued and outstanding share capital as of the date of this annual report. However, the interests of our chairman and chief executive officer may differ from the interests of other shareholders. This concentration of ownership and the protective provisions in our amended and restated memorandum and articles of association may discourage, delay or prevent a change in control of our company, which could have the dual effect of depriving our shareholders of an opportunity to receive a premium for their shares as part of a sale of our company and reducing the price of the ADSs. We may not be able to enter into other transactions that could be beneficial to us without the consent of our chairman and chief executive officer. As a result of the foregoing, the value of your investment could be materially reduced.

We may engage in acquisitions, strategic alliances or spin-offs of certain business units that could disrupt our business, result in increased expenses, reduce our financial resources and cause dilution to our shareholders. We cannot assure you that such acquisitions, strategic alliances or spin-offs of certain business units may be successfully implemented.

Although we have not engaged in material acquisitions in the past, we may look for potential acquisitions or strategic alliances in the future to expand our business. However, we may not be able to find suitable acquisition candidates, complete acquisitions on favorable terms, if at all, or integrate any acquired business, products or technologies into our operations. If we do complete acquisitions, they may be viewed negatively by customers or investors and they may not enable us to strengthen our competitive position or achieve our goals. In addition, any acquisitions that we make could lead to difficulties in integrating personnel, technologies and operations from the acquired businesses and in retaining and motivating key personnel from these businesses. Moreover, acquisitions may disrupt our ongoing operations, divert management from day-to-day responsibilities and increase our expenses. Future acquisitions may reduce our cash available for operations and other uses, and could result in increases in amortization expenses related to identifiable intangible assets acquired, potentially dilutive issuances of equity securities or the incurrence of debt. We cannot predict the number, timing or size of future acquisitions, or the effect that any such acquisitions might have on our operating results. Additionally, we may operate several of our business units as joint ventures with other parties and may establish new joint ventures in the future. The spin-offs of certain business units may cause the loss of some of our clients or users, or disruption in the provision of the services that are being carved out, and may require additional attention from our management.

Changes in international trade policies and international barriers to trade may have an adverse effect on our business and expansion plans.

We currently operate in Singapore, the PRC and the United States, export our products globally, and derive sales from sales of our products to customers globally. In addition, we rely on suppliers in multiple jurisdictions, including suppliers in the United States, for the supply of certain equipment and tools, such as our electronic design automation, a development tool. Changes and potential changes to trade policies, tariffs, export controls, economic sanctions, and supply chain restrictions in or affecting the jurisdictions in which we operate and to which we sell our products, or the perception that these changes or potential changes could occur, could adversely affect the financial and economic conditions in those jurisdictions, as well as our international sales, financial condition and results of operations.

In recent years, the U.S. government has imposed various restrictions on both inbound and outbound trade and investments. On April 2, 2025, President Trump issued an Executive Order pursuant to the International Emergency Economic Powers Act (IEEPA) imposing a reciprocal 10% tariffs on almost all goods imported into the United States, effective April 5, 2025. Effective April 9, 2025, individualized higher IEEPA tariffs apply to goods originating from countries with trade surpluses with the United States, including China, among other countries. The increased tariffs further impose additional challenges and constraints on any future international expansion to the United States we may undertake. In 2024, a certain portion of our revenue was generated in the U.S. market, primarily through exports from our Malaysian operations. As of the date of this annual report, certain products we sell from Malaysia to the United States are subject to a 10% tariff pursuant to the tariff policy announced by Trump administration on April 9, 2025. Furthermore, since February 2025, the Trump administration and China have introduced successive rounds of tariff increases on each other's imports, and the final tariff rates between them remain subject to change and policy developments. As of the date of this annual report, a tariff of up to 245% imposed by the Trump administration applies to all imports from China. Increased tariffs, import restrictions, or retaliatory trade actions could lead to higher input costs, supply delays, and reduced operational flexibility. We cannot predict how tariff policies in various countries may further evolve or anticipate any potential impacts of subsequent developments in such policies on our business. If we, our customers, or other business partners become subject to these measures, our business, financial condition, and results of operations could be materially and adversely affected.

On October 28, 2024, the Office of Investment Security of the U.S. Department of the Treasury issued a final rule to implement President Biden's August 2023 Executive Order on Addressing United States Investments in Certain National Security Technologies and Products in Countries of Concern. This executive order provided for the establishment of a new and targeted national security regulatory framework directed at controlling outbound investment from the United States in certain sensitive industry sectors in the People's Republic of China and the Special Administrative Regions of Hong Kong and Macau. This rule became effective on January 2, 2025 (the "Outbound Investment Rule"). As implemented by the Outbound Investment Rule, the new framework imposes notification requirements and prohibitions on specified investments by U.S. persons in the semiconductor and microelectronics sector, quantum information technologies, and artificial intelligence systems. Within the semiconductor and microelectronics sector, prohibited investments will include certain covered investments in electronic design automation software; certain fabrication and advanced packaging tools; the design, fabrication, or packaging of certain advanced integrated circuits, and supercomputers. Notifiable investments will include any covered investments related to the design, fabrication, or packaging of integrated circuits not otherwise covered by the prohibition. Persons from countries of concern engaged in the development of the foregoing technologies are defined as "Covered Foreign Persons," and certain investments by U.S. persons in Covered Foreign Persons are subject to the Outbound Investment Rule, including acquisitions of equity interests, certain debt financing, joint ventures, and certain investments as a limited partner in a non-U.S. person pooled investment fund related to Covered Foreign Persons. We may be deemed a Covered Foreign Person under the Outbound Investment Rule because we are engaged in the design of integrated circuits. Even though U.S. persons' acquisitions of certain publicly traded securities (such as the ADSs) will be exempted from the notification requirements and prohibitions under the Outbound Investment Rule, the Outbound Investment Rule could still limit our ability to raise additional capital from U.S. investors, which could increase our cost of capital or prevent us from raising sufficient capital when needed, negatively impacting our business, financial condition and prospects.

Furthermore, in January 2025, the U.S. Department of Commerce's Bureau of Industry and Security ("BIS") issued an interim final rule expanding export control requirements applicable to advanced computing semiconductors and certain related technologies. Under the new rule, semiconductor foundries and other upstream suppliers may be required to obtain export licenses for shipments of advanced integrated circuits, even where such chips were previously not subject to export restrictions. As a result, a number of suppliers across the global semiconductor supply chain may face heightened compliance obligations or delays in securing necessary licenses. These regulatory changes could lead to supply chain disruptions, extended lead times, or increased costs for critical components, which in turn could adversely affect our business, financial condition and results of operations.

Additionally, we plan to sell certain of our edge computing chips and products to PRC manufacturers who will then incorporate our edge computing chips and products into final products such as smart appliances. While our edge computing chip products sold to PRC customers are not currently subject to increased tariffs directly, the products of our PRC customers that incorporate our edge computing chip products may be subject to these tariffs. We cannot assure you that future restrictions on trade and tariffs implemented by the United States will not affect our products, which would negatively affect our expansion plans as well as our financial condition and results of operations.

We could be adversely affected by political tensions between the United States and China.

Political tensions between the United States and China have escalated in recent years due to, among other things, the trade war between the two countries since 2018, the COVID-19 outbreak, the PRC National People's Congress' passage of Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region, the imposition of U.S. sanctions on certain Chinese officials from China's central government and the Hong Kong Special Administrative Region by the U.S. government, and the imposition of sanctions on certain individuals from the U.S. by the PRC government, the implementation of regulations in the United States restricting the export of semiconductor and advanced computing products and technology to China, prohibitions on U.S. persons investing in the publicly-traded securities of certain Chinese companies, as well as the Rules on Counteracting Unjustified Extra-territorial Application of Foreign Legislation and Other Measures promulgated by China's Ministry of Commerce on January 9, 2021, which apply to Chinese individuals or entities that are purportedly barred by a foreign country's law from dealing with nationals or entities of a third country. For more details, please see "—Changes in international trade policies and international barriers to trade may have an adverse effect on our business and expansion plans." Further political tensions between China and the U.S. could reduce levels of trades, investments, technological exchanges and other economic activities between the two major economies, which would have a material adverse effect on global economic conditions and the stability of global financial markets. There is uncertainty about the future relationship between the United States and China with respect to a wide range of issues including trade policies, treaties, government regulations and tariffs. The measures taken by the United States and PRC government may have the effect of restricting our ability to transact or otherwise do business with entities within or outside of China. If we were unable to conduct our business as it is currently conducted as a result of such regulatory changes, our business, results of operations and financial condition would be materially and adversely affected.

We face risks related to natural disasters, health epidemics, such as COVID-19, and other catastrophes, which could significantly disrupt our operations.

Our business could be materially and adversely affected by natural disasters or other catastrophes, such as earthquakes, fire, floods, hail, windstorms, severe weather conditions, environmental accidents, power loss, communications failures, explosions, terrorist attacks and similar events. Our business could also be materially and adversely affected by public health emergencies, such as the outbreak of avian influenza, severe acute respiratory syndrome, or SARS, Zika virus, Ebola virus, the 2019 novel coronavirus (COVID-19) or other local health epidemics in China and elsewhere and global pandemics. If any of our employees is suspected of having contracted any contagious disease, we may, under certain circumstances, be required to quarantine those employees and the affected areas of our operations. As a result, we may have to temporarily suspend part or all of our facilities. Furthermore, authorities may impose restrictions on travel and transportation and implement other preventative measures in affected regions to deal with the catastrophe or emergency, which may lead to the temporary closure of our facilities and declining economic activity at large.

In the recent period of time, as the Delta and Omicron variants of COVID-19 periodically spread in China, temporary lockdowns and suspension of business had been enforced in the regions affected. Due to the outbreak of Omicron variant in 2022, certain cities in China have imposed new restrictions and quarantine requirements with office closures and stay home orders. Besides, in March 2022, the COVID-19 resurgence, together with the resulting travel restrictions and quarantine measures, caused disruptions in the operations of our assembly plant in the PRC, which resulted in delays in the shipment of products to certain of our customers. At the end of November 2022, Chinese government eased strict zero COVID-19 policy which caused surge of COVID-19 cases in December 2022 and January 2023. A prolonged outbreak of any health epidemic or other adverse public health developments could have a material adverse effect on our business operations.

The extent to which the COVID-19 has and may persist to impact our ability to effectively operate continues to be highly uncertain. While we do not expect that the COVID-19 virus will continue to have a material adverse effect on our business or financial results at this time, it is not possible to predict the unanticipated consequences of the recurrence of COVID-19 variants on our future business performance and liquidity given the severe impact brought by the outbreak of COVID-19 since late 2019. We will continue to monitor and adhere to the policies, lockdowns, restrictions, and preventive measures implemented by the various government authorities, as well as general movement restrictions, social distancing and other measures imposed to slow the spread of COVID-19.

Cyber-security incidents, including data security breaches or computer viruses, could harm our business by disrupting our delivery of services, damaging our reputation or exposing us to liability.

We receive, process, store and transmit, often electronically, the data of our customers and others, much of which is confidential. Unauthorized access to our computer systems or stored data could result in the theft, including cyber-theft, or improper disclosure of confidential information, and the deletion or modification of records could cause interruptions in our operations. These cyber-security risks increase when we transmit information from one location to another, including over the Internet or other electronic networks. Despite the security measures we have implemented, our facilities, systems and procedures, and those of our third-party service providers, may be vulnerable to security breaches, acts of vandalism, software viruses, misplaced or lost data, programming or human errors or other similar events which may disrupt our delivery of services or expose the confidential information of our customers and others. Any security breach involving the misappropriation, loss or other unauthorized disclosure or use of confidential information of our customers or others, whether by us or a third party, could (i) subject us to civil and criminal penalties, (ii) have a negative impact on our reputation, or (iii) expose us to liability to our customers, third parties or government authorities. We are not aware of such breaches to date. Any of these developments could have a material adverse effect on our business, financial condition and results of operations.

Our business is subject to various evolving PRC laws and regulations regarding data privacy and cyber-security. Failure of cyber-security and data privacy concerns could subject us to penalties, damage our reputation and brand, and harm our business and results of operations.

We face significant challenges with respect to cyber-security and data privacy, including the receipt, processing, storage, and transmission of the data of our customers and others, much of which is confidential. While our principal business activities do not involve large amount of registered users and deal with vast amount of user data, we operate a small-scale online discussion forum for developers and therefore transmit and store limited amount of confidential and private information of our customers and others, such as personal information, including user accounts, phone numbers and E-mail accounts. As of December 31, 2024, our online discussion forum had far less than one million of registered users.

As such, we are subject to various regulatory requirements relating to cyber-security and data privacy, including, without limitation the PRC Cybersecurity Law. We are required by these laws and regulations to ensure the confidentiality, integrity, availability, and authenticity of the information of our customers and others, which is also essential to maintaining their confidence in our products. We have adopted strict information security policies and deployed advanced measures to implement the policies, including, among others, advanced encryption technologies. However, advances in technology, an increased level of sophistication and diversity of our products and services, an increased level of expertise of hackers, new discoveries in the field of cryptography or others can still result in a compromise or breach of our websites. If we are unable to protect our systems, and hence the information stored in our systems, from unauthorized access, use, disclosure, disruption, modification, or destruction, such problems or security breaches could cause a loss, give rise to our liabilities to the owners of confidential information, or subject us to fines and other penalties. In addition, complying with various laws and regulations could cause us to incur substantial costs or require us to change our business practices, including our data practices, in a manner adverse to our business.

In addition, regulatory requirements on cyber-security and data privacy are constantly evolving and can be subject to varying interpretations or significant changes, resulting in uncertainties about the scope of our responsibilities in that regard. For example, on June 10, 2021, the Standing Committee of the National People's Congress promulgated the PRC Data Security Law (《中华人民共和国数据安全法》), which took effect in September 2021. The PRC Data Security Law provides for a security review procedure for the data activities that may affect national security. Additionally, the Revised Review Measures, which became effective on February 15, 2022, set forth the cybersecurity review mechanism for critical information infrastructure operators and network platform operators, and provided that critical information infrastructure operators who procure internet products and services and network platform operators engaging in data processing activities that affect or may affect national security shall be subject to a cybersecurity review. The Revised Review Measures further stipulate that if a network platform operator has personal information of over one million users and intends to be listed in a foreign country, it must be subject to the cybersecurity review. The exact scope of "critical information infrastructure operators" and "network platform operators" under the Revised Review Measures and the current regulatory regime remains unclear, and the PRC government authorities may have wide discretion in the interpretation and enforcement of these laws. Therefore, it is uncertain whether we would be deemed as a critical information infrastructure operator or a network platform operator under PRC law. As advised by Commerce & Finance Law Offices, our PRC legal advisor, the Revised Review Measures remain unclear on whether the relevant requirements will be applicable to companies that have been listed in the United States, such as us. It also remains uncertain whether the future regulatory changes would impose additional restrictions on companies like us. We cannot predict the impact of the Revised Review Measures, if any, at this stage, and we will closely monitor and assess any development in the rule-making process. If we are required to complete such review or approval by any further laws and regulations or authorities, we face uncertainties as to whether such clearance can be timely obtained, or at all. If we are not able to comply with the cybersecurity and data privacy requirements in a timely manner, or at all, we may be subject to government enforcement actions and investigations, fines, penalties, suspension of our non-compliant operations, among other sanctions, which could materially and adversely affect our business and results of operations.

Preferential tax treatment currently available to us in the PRC could be discontinued or reduced.

The amended Enterprise Income Tax Law and its implementation rules permit certain "high and new technology enterprises strongly supported by the state," or HNTEs, which hold independent ownership of core intellectual property to enjoy a preferential enterprise income tax rate, or EIT rate, of 15% subject to certain qualification criteria. HNTEs status is subject to review and renewal every three years. Currently, we have two PRC subsidiaries that are recognized as HNTE and are thus eligible for the favorable 15% enterprise income tax rate from 2022 to 2024. However, if any of these subsidiaries fails to pass the review by, and filing with, the relevant tax authorities to be qualified as a HNTE, such company will no longer enjoy the corresponding preferential tax treatment described above.

We require various approvals, licenses, permits and certifications to operate our business in various countries across the globe. Any failure to obtain or renew any of these approvals, licenses, permits or certifications could materially and adversely affect our business and results of operations.

In accordance with the laws and regulations in the jurisdictions in which we operate, we are required to maintain various approvals, licenses, permits and certifications in order to operate our business. Complying with such laws and regulations may require substantial expense, and any non-compliance may expose us to liability. In the event of non-compliance, we may have to incur significant expenses and divert substantial management time to rectify the incidents. In the future, if we fail to obtain all the necessary approvals, licenses, permits and certifications, we may be subject to fines or the suspension of operations at the production facilities and research and development facilities that do not have all the requisite approvals, licenses, permits and certifications, which could materially and adversely affect our business and results of operations. We may also experience adverse publicity arising from non-compliance with government regulations, which would negatively impact our reputation.

We cannot assure you that we will be able to fulfill all the conditions necessary to obtain the required government approvals, or that relevant government officials will always, if ever, exercise their discretion in our favor, or that we will be able to adapt to any new laws, regulations and policies. There may also be delays on the part of government authorities in reviewing our applications and granting approvals, whether due to the lack of human resources or the imposition of new rules, regulations, government policies or their implementation, interpretation and enforcement. If we are unable to obtain, or experience material delays in obtaining, necessary government approvals, our operations may be substantially disrupted, which could materially and adversely affect our business, financial condition and results of operations.

We may be involved in legal and other disputes from time to time, whether arising out of our operations, including disputes with our raw material or component suppliers, production partners, customers or employees, or class action lawsuits from our shareholders.

We may from time to time be involved in disputes with various parties arising out of our operations, including raw material or electronic components suppliers, production partners, customers or employees. These disputes may lead to protests or legal or other proceedings and may result in damage to our reputation, substantial costs and diversion of resources and management's attention from our core business activities. In addition, we may encounter compliance issues with regulatory bodies in the course of our operations, in respect of which we may face administrative proceedings or unfavorable decisions that may result in liabilities and cause delays to our production and delivery. We may be involved in other proceedings or disputes in the future that may have a material adverse effect on our business, financial condition, results of operations or cash flows.

We have previously been subject to class action lawsuits. While there are currently no pending or ongoing class action lawsuits against us, if we were involved in a class action suit in the future, it could divert a significant amount of our management's attention and other resources from our business and operations and require us to incur significant expenses to defend the suit, which could harm our results of operations. Any such legal proceedings, including potential class action lawsuits, regardless of their outcome, could adversely impact our reputation, disrupt our operations, and limit our ability to raise capital. If we are unsuccessful in defending against such claims, we could be subject to significant monetary damages or injunctive relief, which could have a material adverse effect on our business, financial condition, and results of operations.

Historically, a significant portion of our revenue was contributed by a limited number of clients. If we cannot retain these clients for any reason or expand our client base, our revenue may decrease and the financial condition and results of operations of us may be materially and adversely affected.

Historically, a significant portion of our revenue was contributed by a limited number of clients. For example, for the year ended December 31, 2022, our top three customers account for 33%, 22% and 16% of total revenue from us, respectively. For the year ended December 31, 2023, our top three customers account for 14%, 7% and 4% for total revenue from us, respectively. For the year ended December 31, 2024, our top three customers account for 11%, 11% and 6% of total revenue from us, respectively. We may continue to generate a significant portion of our revenue from a limited number of clients in the future. In addition, although we plan to continue to expand our client base, launch more products and solutions, and generate income from a wider range of clients, we cannot guarantee you that we will be able to succeed or that such client concentration will decrease. If we fail to retain our top clients, our overall income may decrease and the financial condition and results of operations of us may be materially and adversely affected.

Our insurance coverage is limited and may not be adequate to cover potential losses and liabilities. A significant uninsured loss or a loss in excess of our insurance coverage could have a material adverse effect on our results of operations and financial condition.

The insurance products available to us are limited, and the insurance policies we have obtained may not cover all risks associated with our business. The occurrence of certain incidents including severe weather, earthquake, fire, war, power outages, flooding and the consequences resulting from them may not be covered by our insurance policies adequately, or at all. If we were subject to substantial liabilities that were not covered by our insurance, we could incur costs and losses that could materially and adversely affect our results of operations and financial condition.

In addition, we may not be able to recover losses relating to our business pursuant to the commercial agreements we enter with our suppliers, partners or third parties. Under these agreements, some suppliers, partners and parties are not liable for any special, incidental, indirect, intangible, or consequential damages arising out of, or in connection with, among other things, the terms of the agreements or performance thereunder. Further, it may be the case that in no event will the aggregate liability pursuant to these agreements hold a party liable for any loss or damage exceeding the fees paid or payable to the party by the Company during a period immediately preceding the incident giving rise to such liability. Notwithstanding the foregoing, the liability of a party may not be limited in respect of direct damages arising from, or in any way related to, the fraud, willful misconduct or gross negligence of the party in question.

We may need additional capital but may not be able to obtain it in a timely manner and on favorable terms or at all.

Our operations may require additional capital or financing from time to time in order to achieve further growth. We have convertible preferred shares liability of approximately US\$68.1 million and secured term loans of approximately US\$23.9 million as of December 31, 2024. We may require additional cash resources due to the future growth and development of our business. Our future capital requirements may be substantial as we seek to expand our operations, diversify our product offering, and pursue acquisitions and equity investments. If our cash resources are insufficient to satisfy our cash requirements, we may seek to issue additional equity or debt securities or obtain new or expanded credit facilities or enter into additional factoring arrangements.

Our ability to obtain external financing in the future is subject to a variety of uncertainties, including our future financial condition, results of operations and cash flows and the liquidity of international capital and lending markets. In addition, our loan agreements may contain financial covenants that restrict our ability to incur additional indebtedness or to distribute dividends. Any indebtedness that we may incur in the future may also contain operating and financial covenants that could further restrict our operations. There can be no assurance that financing will be available in a timely manner or in amounts or on terms acceptable to us, or at all. A large amount of bank borrowings and other debt may result in a significant increase in interest expense while at the same time exposing us to increased interest rate risks. Equity financings could result in dilution to our shareholders, and the securities issued in future financings may have rights, preferences and privileges that are senior to those of our ordinary shares or ADSs. Any failure to raise needed funds on terms favorable to us, or at all, could severely restrict our liquidity as well as have a material adverse effect on our business, financial condition and results of operations.

Adverse developments affecting the financial services industry could adversely affect our current and projected business operations and our financial condition and results of operations.

Adverse developments that affect financial institutions, such as events involving liquidity that are rumored or actual, have in the past and may in the future lead to bank failures and market-wide liquidity problems. For example, on March 10, 2023, Silicon Valley Bank (“SVB”) was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation (“FDIC”) as receiver. Similarly, on March 12, 2023, Signature Bank and Silvergate Capital Corp. were each swept into receivership. The Department of the Treasury, the Federal Reserve and the FDIC released a statement that indicated that all depositors of SVB and Signature Bank would have access to all of their funds, including funds held in uninsured deposit accounts, after only one business day of closure.

We do not hold cash deposits at SVB and have withdrawn all our deposits from Signature Bank. Also, we do not hold securities at SVB or Signature Bank and have not experienced any adverse impact to our liquidity or to our current and projected business operations, financial condition or results of operations. However, uncertainty remains over liquidity concerns in the broader financial services industry, and our business, our business partners, or industry as a whole may be adversely impacted in ways that we cannot predict at this time.

Although we assess our banking relationships as we believe necessary or appropriate, our access to cash in amounts adequate to finance or capitalize our current and projected future business operations could be significantly impaired by factors that affect the financial institutions with which we have banking relationships, and in turn, us. These factors could include, among others, events such as liquidity constraints or failures, the ability to perform obligations under various types of financial, credit or liquidity agreements or arrangements, disruptions or instability in the financial services industry or financial markets, or concerns or negative expectations about the prospects for companies in the financial services industry. These factors could also include factors involving financial markets or the financial services industry generally. The results of events or concerns that involve one or more of these factors could include a variety of material and adverse impacts on our current and projected business operations and our financial condition and results of operations. These could include, but may not be limited to, delayed access to deposits or other financial assets or the uninsured loss of deposits or other financial assets; or termination of cash management arrangements and/or delays in accessing or actual loss of funds subject to cash management arrangements.

In addition, widespread investor concerns regarding the U.S. or international financial systems could result in less favorable commercial financing terms, including higher interest rates or costs and tighter financial and operating covenants, or systemic limitations on access to credit and liquidity sources, thereby making it more difficult for us to acquire financing on acceptable terms or at all. Any decline in available funding or access to our cash and liquidity resources could, among other risks, adversely impact our ability to meet our operating expenses, financial obligations or fulfill our other obligations, result in breaches of our financial and/or contractual obligations or result in violations of federal or state wage and hour laws. Any of these impacts, or any other impacts resulting from the factors described above or other related or similar factors not described above, could have material adverse impacts on our liquidity and our current and/or projected business operations and financial condition and results of operations.

In addition, our business partners could be adversely affected by any of the liquidity or other risks that are described above as factors, which in turn, could have a material adverse effect on our current and/or projected business operations and results of operations and financial condition. Any business partner bankruptcy or insolvency, or any breach or default by a business partner, or the loss of any significant business partner relationships, could result in material adverse impacts on our current and/or projected business operations and financial condition.

We rely on third-party logistics service providers to deliver our products. Disruption in logistics may prevent us from meeting customer demand and our business, financial condition and results of operations may suffer as a result.

We engage independent third-party logistics service providers to deliver the ICs from our production partners to our assembly plant and our products from our warehouses to our customers. Disputes with or termination of our contractual relationships with one or more of our logistics service providers could result in delayed delivery of products or increased costs. There can be no assurance that we can continue or extend relationships with our current logistics service providers on terms acceptable to us, or that we will be able to establish relationships with new logistics service providers to ensure accurate, timely and cost-efficient delivery services. If we are unable to maintain or develop good relationships with our preferred logistics service providers, it may inhibit our ability to offer products in sufficient quantities, on a timely basis, or at prices acceptable to our consumers. If there is any breakdown in our relationships with our preferred logistics service providers, we cannot assure you that no interruptions in our product delivery would occur or that they would not materially and adversely affect our business, prospects and results of operations.

As we do not have any direct control over these logistics service providers, we cannot guarantee their quality of service. In addition, services provided by these logistics service providers could be interrupted by unforeseen events beyond our control, such as poor handling provided by these logistics service providers, natural disasters, pandemics, adverse weather conditions, riots and labor strikes. If there is any delay in delivery, damage to products or any other issue, we may lose customers and sales and our brand image may be tarnished.

Bitcoin mining activities are energy-intensive, which may restrict the geographic locations of miners and have a negative environmental impact.

Bitcoin mining activities are inherently energy-intensive and electricity costs account for a significant portion of the overall mining costs. The availability and cost of electricity will restrict the geographic locations of mining activities.

Any shortage of electricity supply or increase in electricity cost in a jurisdiction may negatively impact the viability and the expected economic return for Bitcoin mining activities in that jurisdiction, which may in turn decrease the sales of our Bitcoin mining machines in that jurisdiction.

In addition, the significant consumption of electricity may have a negative environmental impact, including contribution to climate change, which may give rise to public opinion against allowing the use of electricity for Bitcoin mining activities or government measures restricting or prohibiting the use of electricity for Bitcoin mining activities. Any such development in the jurisdictions where we sell our Bitcoin mining machines could have a material and adverse effect on our business, financial condition and results of operations.

We may be subject to fines and other administrative penalties resulting from the operation of our business, which could materially and adversely affect our business, financial condition and results of operation.

We are subject to regulation by government authorities in the PRC and other countries where we have operations. These relevant regulatory authorities may have broad powers to adopt regulations and other requirements affecting or restricting our operations, including tax policies. Moreover, these relevant regulatory authorities may possess significant powers to enforce applicable regulatory requirements in the event of our non-compliance, including the imposition of fines, sanctions or the revocation of licenses or permits to operate our business. Any of these events could have a material adverse impact on our results of operation.

Any global systemic economic and financial crisis could negatively affect our business, results of operations, and financial condition.

Any prolonged slowdown in the Chinese or global economy may have a negative impact on our business, results of operations and financial condition. The global financial markets have experienced significant disruptions since 2008 and the United States, Europe and other economies have experienced periods of recession. There is also the prospect of a brewing global recession as the result of the COVID - 19 pandemic. There is considerable uncertainty over the long-term effects of the expansionary monetary and fiscal policies adopted by the central banks and financial authorities of some of the world's leading economies, including the United States and the PRC. There have also been concerns over unrest in Ukraine, the Middle East and Africa, which have resulted in volatility in financial and other markets. There have also been concerns over the United Kingdom leaving the European Union as well as the significant potential changes to United States trade policies, treaties and tariffs, including trade policies and tariffs regarding the PRC. There have also been concerns about the economic effect of the tensions in the relationship between the PRC and surrounding Asian countries. There were and could be in the future a number of domino effects from such turmoil on our business, including significant decreases in orders from our customers; insolvency of key suppliers resulting in product delays; inability of customers to obtain credit to finance purchases of our products and/or customer insolvencies; and counterparty failures negatively impacting our operations. Any systemic economic or financial crisis could cause revenues for the semiconductor industry as a whole to decline dramatically and could materially and adversely affect our results of operations.

If counterfeit products are sold under our brand names and trademarks, our reputation and financial results could be materially and adversely affected.

Third-party merchants and dealers are separately responsible for sourcing counterfeit products that are sold under our brand names and trademarks. Counterfeit products may be defective or inferior in quality as compared to authentic products. If our customers are not satisfied by counterfeit products sold under our brand names and trademarks, we may be subject to reputational damage. We believe our brand and reputation are important to our success and our competitive position. The discovery of counterfeit products sold under our brand names and trademarks may severely damage our reputation and cause customers to refrain from making future purchases from us, which would materially and adversely affect our business operations and financial results.

Risks Relating to Doing Business in the PRC

Economic, political and social conditions as well as governmental policies in the PRC could adversely affect our business, prospects, financial condition and financial results.

A significant portion of our assets and operations are located in China. Accordingly, our business, financial condition, results of operations and prospects may be influenced to a significant degree by economic, political and social conditions in China generally. The PRC economy differs from the economies of most developed countries in many aspects, including:

- political structure;
- level of government involvement and control;
- growth rate and level of development;
- level and control of capital investment and reinvestment;
- control of foreign exchange; and
- allocation of resources.

The PRC economy has been transitioning from a centrally planned economy to a more market-oriented economy for approximately four decades as the PRC government has implemented economic reform measures to utilize market forces in the development of the PRC economy. We cannot predict whether changes in the economic, political and social conditions of the PRC and in its laws, regulations and policies will have any adverse effect on our current or future business, financial condition or results of operations.

More specifically, many of the economic reforms carried out by the PRC government are unprecedented or experimental and are expected to be refined and improved over time. This refining and adjustment process may not necessarily have a positive effect on our operations and business development. These actions, as well as other actions and policies of the government of the PRC, could cause a decrease in the overall level of economic activity in the PRC and the surrounding regions and, in turn, have an adverse impact on our business and financial condition.

Changes to and uncertainties in the legal system of the PRC may have a material adverse impact on our business, financial condition and results of operations. Legal protections available to you under the legal system of the PRC may be limited.

The PRC is still in the process of developing a comprehensive statutory framework. Since 1979, the PRC government has established a commercial law system, and significant progress has been made in promulgating laws and regulations relating to economic affairs and matters such as corporate organization and governance, foreign investment, commerce, taxation and trade. However, many of these laws and regulations are relatively new, and the implementation and interpretation of these laws and regulations remain uncertain in many areas. It may be difficult to obtain swift enforcement or to obtain enforcement of a judgment by a court of another jurisdiction. Consequently, developments and changes in the PRC laws and regulations, including their interpretation and enforcement, may have a material and adverse effect on our business, financial condition and results of operations. Furthermore, the legal protections available to you under the PRC legal system may be limited.

PRC governmental authorities may intervene or influence our operations at any time, which could result in a material adverse change in our operations and the value of our ADSs. Also, PRC governmental authorities' oversight and control over offerings conducted overseas by, and foreign investment in, issuers with a substantial level of China-based operations could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and result in a material adverse change in our operations and the value of our ADSs.

We conduct a substantial portion of our business through our PRC operating subsidiaries. Our operations in China are governed by PRC laws and regulations. The PRC governmental authorities have significant oversight and discretion over the conduct of our business, and it may intervene or influence our operations as the government deems appropriate to further regulatory, political and societal goals, which could result in a material adverse change in our operations and/or the value of our ADSs. Also, the PRC governmental authorities have indicated an intent to exert more oversight and control over offerings that are conducted overseas and/or foreign investment in issuers with a substantial level of China-based operations. Any such action could significantly limit or completely hinder our ability to offer or continue to offer securities to investors and cause the value of such securities to significantly decline or be worthless. In addition, implementation of industry-wide regulations directly targeting our operations could cause the value of our securities to significantly decline. Therefore, investors of our company and our business face potential uncertainty from actions taken by the PRC governmental authorities affecting our business.

In particular, the PRC legal system is a civil law system based on written statutes. Unlike the common law system, prior court decisions may be cited for reference, but have limited precedential value. Recently enacted laws, rules and regulations may not sufficiently cover all aspects of economic activities in China or may be subject to a significant degree of interpretation by PRC regulatory agencies and courts. In particular, because some of these laws, rules and regulations are relatively new, and because of the limited number of published decisions and the non-precedential nature of these decisions, and because the laws, rules and regulations often give the relevant regulator significant discretion in how to enforce them, the interpretation and enforcement of these laws, rules and regulations involve uncertainties and can be inconsistent with past practices. Therefore, it is possible that our existing operations may be found not to be in full compliance with relevant laws and regulations in the future. In addition, the PRC legal system is based in part on government policies and directives, some of which are not published and may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until after the occurrence of the violation.

Any administrative and court proceedings in China may be protracted, resulting in substantial costs and diversion of resources and management attention. Since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy. These uncertainties may impede our ability to enforce the contracts we have entered into and could materially and adversely affect our business, financial condition and results of operations.

In 2021, the PRC government announced its plans to enhance its regulatory oversight of companies with a substantial level of China - based operations listing overseas. The Opinions on Intensifying Crack Down on Illegal Securities Activities (《关于依法从严打击证券违法活动的意见》) issued on July 6, 2021 called for:

- tightening oversight of data security, cross-border data flow and administration of classified information, as well as amendments to relevant regulation to specify responsibilities of overseas listed companies with a substantial level of China - based operations with respect to data security and information security;
- enhanced oversight of overseas listed companies as well as overseas equity fundraising and listing by such companies; and
- extraterritorial application of China's securities laws.

The CSRC, promulgated the Overseas Listing Trial Measures and five relevant guidelines on February 17, 2023, which became effective on March 31, 2023. The Overseas Listing Trial Measures regulate both direct and indirect overseas offering and listing by PRC domestic companies by adopting a filing-based regulatory regime. The Overseas Listing Trial Measures provide that if the issuer both meets the following criteria, the overseas securities offering and listing conducted by such issuer will be deemed as indirect overseas offering subject to the filing procedure set forth under the Overseas Listing Trial Measures: (i) 50% or more of the issuer's operating revenue, total profit, total assets or net assets as documented in its audited consolidated financial statements for the most recent fiscal year is accounted for by the issuer's domestic companies; and (ii) the issuer's business activities are substantially conducted in mainland China, or its principal place of business are located in mainland China, or the senior managers in charge of its business operations and management are mostly Chinese citizens or domiciled in mainland China. The determination as to whether or not an overseas offering and listing by domestic companies is indirect, shall be made on a substance over form basis.

On the same day, the CSRC also held a press conference for the release of the Trial Measures and issued the Notice on Administration for the Filing of Overseas Offering and Listing by Domestic Companies (《关于境内企业境外发行上市备案管理安排的通知》), which, among others, clarifies that on or prior to the effective date of the Overseas Listing Trial Measures, domestic companies that have been completed their overseas offering and listing, which are called as "the stock enterprises (存量企业)". As a stock enterprise (存量企业), we shall file with the CSRC within 3 working days after the subsequent securities offering is completed. The CSRC shall order rectification, issue warnings and impose fines to the company fails to fulfill filing procedure as stipulated in Overseas Listing Trial Measures.

In addition, the CSRC published the Provisions on Strengthening Confidentiality and Archives Administration in Respect of Overseas Issuance and Listing of Securities by Domestic Enterprises (《关于加强境内企业境外发行证券和上市相关保密和档案管理工作的规定》) on February 24, 2023, which became effective on March 31, 2023. The CSRC stipulates domestic enterprises, securities companies and securities service agencies which provide the corresponding services in the course of overseas issuance and listing of domestic enterprises, shall strengthen legal awareness of confidentiality of State secrets and archives administration, establish a sound system for confidentiality and archives work, adopt the requisite measures to perform the responsibilities of confidentiality and archives administration.

As there are still uncertainties regarding the interpretation and implementation of such regulatory guidance, we cannot assure you that we will always be able to comply with new regulatory requirements relating to our future overseas capital-raising activities. We may become subject to more stringent requirements with respect to matters including cross-border investigation and enforcement of legal claims.

The Chinese government may promulgate relevant laws, rules and regulations that may impose additional and significant obligations and liabilities on overseas listed companies with a certain level of China operations regarding data security, cross-border data flow, and compliance with China's securities laws. See also "—Risks Relating to Our Business and Industry—Our business is subject to various evolving PRC laws and regulations regarding data privacy and cyber-security. Failure of cyber-security and data privacy concerns could subject us to penalties, damage our reputation and brand, and harm our business and results of operations." It is uncertain whether or how these new laws, rules and regulations and the interpretation and implementation thereof may affect us, but among other things, our ability and the ability of our PRC subsidiaries to obtain external financing through the issuance of equity securities overseas could be negatively affected.

You may experience difficulties enforcing judgments against us and our management in the PRC.

We were advised by Commerce & Finance Law Offices, our PRC legal adviser, that the recognition and enforcement of foreign judgments are governed by the PRC Civil Procedures Law. PRC courts may recognize and enforce foreign judgments in accordance with the requirements of the PRC Civil Procedures Law based either on treaties between the PRC and the country where the judgment is made or on reciprocity between jurisdictions, provided that the foreign judgments do not violate the basic principles of laws of the PRC or its sovereignty, security or social and public interest.

PRC regulations relating to the establishment of offshore special purpose vehicles by PRC residents may subject our PRC-resident beneficial owners or our PRC subsidiaries to liability or penalties, limit our ability to make capital contributions into our PRC subsidiaries, limit our PRC subsidiaries' ability to distribute profits to us, or otherwise adversely affect our financial position.

Under several regulations promulgated by the State Administration of Foreign Exchange of the People's Republic of China, or SAFE, PRC residents and PRC corporate entities are required to register with and obtain approval from local branches of SAFE or designated qualified foreign exchange banks in China in connection with their direct or indirect offshore investment activities. In addition, any PRC resident who is a direct or indirect shareholder of an offshore company is required to update the previously filed registration with the local branch of SAFE, with respect to any material change involving that offshore company, such as an increase or decrease in capital, transfer or swap of shares, merger or division. These regulations apply to all direct and indirect shareholders and beneficial owners of our company who are PRC residents, or PRC-Resident Shareholders, and may apply to any offshore acquisitions that we make in the future. To the best of our knowledge, as of the date of this annual report, each of our principal shareholders who is required to make the foreign exchange registration under SAFE Circular 37 had completed such registration. However, we may not at all times be fully aware or informed of the identities of all the PRC residents holding direct or indirect interests in our company, and we cannot assure you that all of our shareholders and beneficial owners who are PRC residents will comply with these foreign exchange regulations.

If any PRC-Resident Shareholder fails to make the required registration or update a previously filed registration, our PRC subsidiaries may be prohibited from distributing their profits and proceeds from any reduction in capital, share transfer or liquidation to us, and we may also be prohibited from injecting additional capital into our PRC subsidiaries. Moreover, failure to comply with the various foreign exchange registration requirements described above could result in liability on the related PRC-Resident shareholder or our PRC subsidiaries under the PRC laws for evasion of applicable foreign exchange restrictions.

The PCAOB had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections of our auditor in the past has deprived our investors with the benefits of such inspections.

Our auditor, the independent registered public accounting firm that issues the audit report included in this annual report, as auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. The auditor is located in mainland China, a jurisdiction where the PCAOB was historically unable to conduct inspections and investigations completely before 2022. As a result, we and investors in the ADSs were deprived of the benefits of such PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in China in the past has made it more difficult to evaluate the effectiveness of our independent registered public accounting firms' audit procedures or quality control procedures as compared to auditors outside of China that are subject to the PCAOB inspections. On December 15, 2022, the PCAOB issued a report that vacated its December 16, 2021 determination and removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. However, if the PCAOB determines in the future that it no longer has full access to inspect and investigate completely accounting firms in mainland China and Hong Kong, and we use an accounting firm headquartered in one of these jurisdictions to issue an audit report on our financial statements filed with the Securities and Exchange Commission, we and investors in our ADSs would be deprived of the benefits of such PCAOB inspections again, which could cause investors and potential investors in the ADSs to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

Our ADSs may be delisted under the Holding Foreign Companies Accountable Act if the PCAOB is unable to inspect auditors who are located in China. The delisting of our ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment.

Pursuant to the HFCAA, if the SEC determines that we have filed audit reports issued by a registered public accounting firm that has not been subject to inspections by the PCAOB for two consecutive years, the SEC will prohibit our shares or ADSs from being traded on a national securities exchange or in the over-the-counter trading market in the United States.

On December 16, 2021, the PCAOB issued a report to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong, and our auditor was subject to that determination. In April 2022, the SEC conclusively listed us as a Commission-Identified Issuer under the HFCAA following the filing of our annual report on Form 20-F for the fiscal year ended December 31, 2021. Consequently, we were conclusively identified as a “Commission-Identified Issuer” on May 26, 2022. On December 15, 2022, the PCAOB removed mainland China and Hong Kong from the list of jurisdictions where it is unable to inspect or investigate completely registered public accounting firms. For this reason, we were not identified as a Commission-Identified Issuer under the HFCAA after we filed our annual report on Form 20-F for the fiscal year ended December 31, 2023 and do not expect to be so identified after we file this annual report on Form 20-F for the fiscal year ended December 31, 2024.

Each year, the PCAOB will determine whether it can inspect and investigate completely audit firms in mainland China and Hong Kong, among other jurisdictions. If the PCAOB determines in the future that it no longer has full access to inspect and investigate completely accounting firms in mainland China and Hong Kong and we use an accounting firm headquartered in one of these jurisdictions to issue an audit report on our financial statements filed with the SEC, we would be identified as a Commission-Identified Issuer following the filing of the annual report on Form 20-F for the relevant fiscal year. In accordance with the HFCAA, our securities would be prohibited from being traded on a national securities exchange or in the over-the-counter trading market in the United States if we are identified as a Commission-Identified Issuer for two consecutive years in the future. The delisting of our ADSs, or the threat of their being delisted, may materially and adversely affect the value of your investment. If our ADSs are prohibited from trading in the United States, there is no certainty that we will be able to list on a non-U.S. exchange or that a market for our shares will develop outside of the United States. A prohibition of being able to trade in the United States would substantially impair your ability to sell or purchase our ADSs when you wish to do so, and the risk and uncertainty associated with delisting would have a negative impact on the price of our ADSs. Also, such a prohibition would significantly affect our ability to raise capital on terms acceptable to us, or at all, which would have a material adverse impact on our business, financial condition, and prospects.

Our corporate structure may restrict our ability to receive dividends from, and transfer funds to, our PRC subsidiaries, which could restrict our ability to act in response to changing market conditions in a timely manner.

We are a holding company incorporated in Cayman Islands and conduct our operation through our operating subsidiaries. The ability of our operating subsidiaries to make dividend and other payments to us may be restricted by factors that include changes in applicable foreign exchange and other laws and regulations.

In particular, under the PRC law, each of our PRC subsidiaries may only pay dividends after 10% of its net profit has been set aside as reserve funds, unless such reserves have reached at least 50% of its registered capital. In addition, the profit available for distribution from our PRC subsidiaries is determined in accordance with generally accepted accounting principles in the PRC. This calculation may differ if it were performed in accordance with U.S. GAAP. As a result, we may not have sufficient distributions from our PRC subsidiaries to enable necessary profit distributions to our shareholders in the future, which would be based upon our financial statements prepared under U.S. GAAP.

Distributions by our PRC subsidiaries to us other than as dividends may be subject to governmental approval and taxation. Any transfer of funds from our company to our PRC subsidiaries, either as a shareholder loan or as an increase in registered capital, is subject to registration or approval of PRC governmental authorities, including the relevant administration of foreign exchange and/or the relevant examining and approval authority. These limitations on the free flow of funds between us and our PRC subsidiaries could restrict our ability to act in response to changing market conditions in a timely manner.

Dividends payable by us to our foreign investors and gains on the sale of the ADSs may become subject to withholding taxes under the PRC tax laws.

Pursuant to the Enterprise Income Tax Law of the PRC (《中华人民共和国企业所得税法》), or the EIT Law, and EIT implementation rules, our foreign corporate shareholders may be subject to a 10% income tax upon any gains realized from the transfer of their ADSs and dividends distributable to such foreign corporate shareholder, if such income is regarded as income from “sources within the PRC.” According to the EIT implementation rules, whether income generated from transferring equity investments is to be regarded as sources within the PRC or from foreign territory shall depend upon the locations in which the enterprises accepting the equity investment are located. However, it is unclear whether income received by our shareholders will be deemed to be income from sources within the PRC and whether there will be any exemption or reduction in taxation for our foreign corporate shareholders due to the promulgation of the EIT Law. If our foreign corporate shareholders are required to pay PRC income tax on the transfers of the ADSs that they hold or on the gains on the sale of the ADSs by them, the value of our foreign corporate shareholders’ investments in the ADSs may be materially and adversely affected.

We may be classified as a “resident enterprise” for PRC enterprise income tax purposes, which could result in unfavorable tax consequences to us and our non-PRC shareholders.

The EIT Law provides that enterprises established outside of the PRC whose “de facto management bodies” are located in the PRC are considered “resident enterprises” and are generally subject to the uniform 25% enterprise income tax rate on their worldwide income. In addition, a circular issued by the State Administration of Taxation on April 22, 2009 with its most recent amendment on December 29, 2017, regarding the standards used to classify certain Chinese-invested enterprises controlled by Chinese enterprises or Chinese group enterprises and established outside of the PRC as “resident enterprises” clarified that dividends and other income paid by such “resident enterprises” will be considered to be PRC source income, subject to PRC withholding tax, currently at a rate of 10%, when recognized by non-PRC enterprise shareholders. This circular also subjects such “resident enterprises” to various reporting requirements with the PRC tax authorities. Under the implementation regulations to the enterprise income tax, a “de facto management body” is defined as a body that has material and overall management and control over the manufacturing and business operations, personnel and human resources, finances and properties of an enterprise. In addition, the circular mentioned above sets out criteria for determining whether “de facto management bodies” are located in the PRC for overseas incorporated, domestically controlled enterprises. However, as this circular only applies to enterprises established outside of the PRC that are controlled by PRC enterprises or groups of PRC enterprises, it remains unclear how the tax authorities will determine the location of “de facto management bodies” for overseas incorporated enterprises that are controlled by individual PRC residents like us and some of our subsidiaries outside China. Therefore, although certain of our management is currently located in the PRC, it remains unclear whether the PRC tax authorities would require or permit our overseas registered entities to be treated as PRC resident enterprises. We do not currently consider our company to be a PRC resident enterprise. However, if the PRC tax authorities disagree with our assessment and determine that we are a “resident enterprise,” we may be subject to enterprise income tax at a rate of 25% on our worldwide income and dividends paid by us to our non-PRC shareholders as well as capital gains recognized by them with respect to the sale of the ADSs may be subject to a PRC withholding tax.

This will have an impact on our effective tax rate, a material adverse effect on our net income and results of operations, and may require us to withhold tax on our non-PRC shareholders.

Government control of foreign currency conversion may affect the value of your investment.

The PRC government imposes controls on the convertibility of Renminbi into foreign currencies and, in certain cases, the remittance of currency out of the PRC. Under existing PRC foreign exchange regulations, payments of certain current account items can be made in foreign currencies without prior approval from the local branch of the SAFE by complying with certain procedural requirements. However, approval from appropriate government authorities is required where Renminbi is to be converted into foreign currency and remitted out of the PRC to pay capital expenses such as the repayment of bank loans denominated in foreign currencies. The restrictions on foreign exchange transactions under capital accounts could also affect the ability of our subsidiaries in the PRC to obtain foreign exchange through debt or equity financing, including by means of loans or capital contributions from us. The PRC government may also at its discretion restrict access in the future to foreign currencies for current account transactions.

Risks Relating to Doing Business in International Markets

We face risks associated with the expansion of our scale of operations globally, and if we are unable to effectively manage these risks, they could impair our ability to expand our business abroad.

As part of our growth strategy, we plan to further expand our sales globally. As we continue to grow our business and expand our operations globally, we will continue to sell our products into new jurisdictions in which we have limited or no experience and in which our brands may be less recognized. The expansion exposes us to a number of risks, including:

- we have a limited customer base and limited sales and relationships with international customers;
- difficulty in managing multinational operations;
- we may face competitors in the overseas markets who are more dominant and have stronger ties with customers and greater financial and other resources;
- fluctuations in currency exchange rates;
- challenges in providing customer services and support in these markets;
- challenges in managing our international sales channels effectively;
- unexpected transportation delays or interruptions or increases in international transportation costs;
- difficulties in and costs of exporting products overseas while complying with the different commercial, legal and regulatory requirements of the overseas markets in which we offer our products;
- difficulty in ensuring that our customers comply with the sanctions imposed by the Office of Foreign Assets Control, or OFAC, on various foreign states, organizations and individuals;
- inability to obtain, maintain or enforce intellectual property rights;
- inability to effectively enforce contractual or legal rights or intellectual property rights in certain jurisdictions under which we operate, including contracts with our existing and future customers and partners;
- changes in a specific country or region's political or economic conditions or policies;
- unanticipated changes in prevailing economic conditions and regulatory requirements; and

- governmental policies favoring domestic companies in certain foreign markets or trade barriers including export requirements, tariffs, taxes and other restrictions and charges. In particular, there have been concerns over the exit of the United Kingdom from the European Union, a worldwide trend in favor of nationalism and protectionist trade policy and the ongoing trade dispute between the United States and China as well as other potential international trade disputes, all of which could cause turbulence in international markets. These government policies or trade barriers could increase the prices of our products and make us less competitive in such countries.

If we are unable to effectively manage these risks, our ability to expand our business abroad will be impaired, which could have a material and adverse effect on our business, financial condition, results of operations and prospects.

Our business operation and international expansion is subject to geopolitical risks.

Our business operation and international expansion is subject to geopolitical risks. We rely on our production partners in and outside of PRC for the fabrication, testing and packaging for our ASICs. Any significant deterioration in the cross-strait relationship may have a negative impact on the ability of our production partners outside of PRC to fulfill their contractual obligations and ship the ASICs to our PRC operations and partners. For example, a January 2025 interim final rule released by the BIS placed additional license requirements before semiconductor foundries could ship to certain of our downstream production partners. Restrictions such as the foregoing could have a material and adverse effect on our business, financial condition and results of operations.

In addition, there might be significant changes to United States trade policies, treaties and tariffs, including trade policies and tariffs regarding the PRC. China may respond by imposing retaliatory trade measures against the United States. We rely on suppliers in the United States for the supply of certain equipment and tools. If the United States restricts or prohibits the importation of ASICs or related products from China, our international expansion may be negatively affected. If China imposes retaliatory trade measures that affect the importation of the equipment and tools we require, we may face difficulty in our production. In all cases, our business, financial condition and results of operations could be materially and adversely affected.

Risks Relating to the ADSs

The trading price of the ADSs is likely to be volatile, which could result in substantial losses to investors.

The trading price of the ADSs is likely to be volatile and could fluctuate widely due to factors beyond our control. This may happen because of broad market and industry factors, including the fluctuations of Bitcoin price and performance and fluctuation of the market prices of other companies with business operations located mainly in China that have listed their securities in the United States. The securities of some of these companies have experienced significant volatility since their initial public offerings, including, in some cases, substantial price declines in their trading prices. The trading performances of other PRC companies' securities after their offerings may affect the attitudes of investors toward PRC companies listed in the United States in general and consequently may impact the trading performance of our ADSs, regardless of our actual operating performance.

In addition to market and industry factors, the price and trading volume of our ADSs may be highly volatile due to factors specific to our own operations, including the following:

- variations in our revenues, earnings and cash flow;
- announcements of new investments, acquisitions, strategic partnerships or joint ventures by us or our competitors;
- announcements of new offerings, solutions and expansions by us or our competitors;
- changes in financial estimates by securities analysts;
- detrimental adverse publicity about us, our products or our industry;
- additions or departures of key personnel;
- the release of lockup or other transfer restrictions on our outstanding equity securities or sales of additional equity securities; and

- potential litigation or regulatory investigations.

Any of these factors may result in large and sudden changes in the volume and price at which our ADSs will trade.

If we issue additional equity securities in the future, you may suffer dilution, and trading price of our ADSs may decline.

We may issue additional equity securities to finance future acquisitions or new projects or for other general corporate purposes, although there is no present intention to do so. Any such issuance could result in a dilution of your ownership stake and/or the perception of any such issuances could have an adverse impact on the market price of the ADSs.

We may require additional financing, which may not be available on favorable terms or at all, and which may result in dilution of the equity interest of the holders of ADSs.

We may require additional financing to fund research and development, expansion of production scale, and other general corporate purposes. We may consume available resources more rapidly than currently anticipated, resulting in the need for additional funding. Any additional fundraising efforts may divert our management from their day-to-day activities, which may adversely affect our business and operating results.

If we cannot obtain financing when needed, or obtain it on favorable terms, we may be required to significantly reduce or refocus our future plans, resulting in increased costs.

Alternatively, to obtain needed funds for acquisitions or operations, we may seek to issue additional ADSs representing our ordinary shares, or issue equity-linked debt, or we may choose to issue preferred shares, in either case through public or private financings. Additional funds may not be available on terms that are favorable to us and, in the case of such equity financings, may result in dilution to the holders of ADSs.

If securities or industry analysts do not publish research or reports about our business, or if they adversely change their recommendations regarding the ADSs, the market price for the ADSs and trading volume could decline.

The trading market for the ADSs will be influenced by research or reports that industry or securities analysts publish about our business. If one or more analysts who cover us downgrade the ADSs or lower down the target price of our ADSs, the market price for the ADSs would likely decline. If one or more of these analysts cease to cover us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could, in turn, cause the market price or trading volume for the ADSs to decline.

Because we do not expect to pay dividends in the foreseeable future, you must rely on price appreciation of the ADSs for a return on your investment.

We currently intend to retain most, if not all, of our available funds and any future earnings to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future. Therefore, you should not rely on an investment in our ADSs as a source for any future dividend income.

Our board of directors has discretion as to whether to distribute dividends, subject to certain requirements of Cayman Islands law. Under Cayman Islands law, a Cayman Islands company may pay a dividend out of either profit or share premium account, provided that in no circumstances may a dividend be paid if this would result in the company being unable to pay its debts as they fall due in the ordinary course of business. Even if our board of directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on our future results of operations and cash flow, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our board of directors. Accordingly, the return on your investment in the ADSs will likely depend entirely upon any future price appreciation of the ADSs. There is no guarantee that the ADSs will appreciate in value or even maintain the price at which you purchased the ADSs. You may not realize a return on your investment in the ADSs, and you may even lose your entire investment in the ADSs.

The dual-class structure of our ordinary shares may adversely affect the trading market for our ADSs.

Certain shareholder advisory firms have announced changes to their eligibility criteria for inclusion of shares of public companies on certain indices, including the S&P 500, to exclude companies with multiple classes of shares and companies whose public shareholders hold no more than 5% of total voting power from being added to such indices. In addition, several shareholder advisory firms have announced their opposition to the use of multiple class structures. As a result, the dual-class structure of our ordinary shares may prevent the inclusion of our ADSs representing Class A ordinary shares in such indices and may cause some shareholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices could result in a less active trading market for our ADSs. Any negative actions or publications by shareholder advisory firms could also adversely affect the value of our ADSs.

Our Amended and Restated Memorandum and Articles of Association contain anti-takeover provisions that could have a material adverse effect on the rights of holders of our Class A ordinary shares and ADSs.

Our amended and restated memorandum and articles of association contain provisions to limit the ability of others to acquire control of our company or cause us to engage in change-of-control transactions, including a provision that entitles each Class B ordinary share to 15 votes in respect of all matters subject to a shareholders' vote. These provisions could have the effect of depriving our shareholders of an opportunity to sell their shares at a premium over prevailing market prices by discouraging third parties from seeking to obtain control of our company in a tender offer or similar transaction. If any Class B ordinary shares are converted into Class A ordinary shares or canceled for any reasons, our board of directors will have the authority without further action by our shareholders to issue additional Class B ordinary shares, which will be dilutive to our Class A ordinary shareholders. In addition, our board of directors has the authority, without further action by our shareholders, to issue preferred shares in one or more series and to fix their designations, powers, preferences, privileges, and relative participating, optional or special rights and the qualifications, limitations or restrictions, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than the rights associated with our Class A ordinary shares, in the form of ADS or otherwise. We could issue preferred shares quickly with terms calculated to delay or prevent a change in control of our company or make removal of management more difficult. If our board of directors decides to issue preferred shares, the price of our ADSs may fall and the voting and other rights of the holders of our Class A ordinary shares and ADSs may be materially and adversely affected.

You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited because we are incorporated under Cayman Islands law.

We are an exempted company incorporated under the laws of the Cayman Islands. Our corporate affairs are governed by, among other things, our memorandum and articles of association, as amended, the Companies Act of the Cayman Islands, as amended and the common law of the Cayman Islands. The rights of shareholders to take action against our directors, actions by our minority shareholders and the fiduciary duties of our directors to us under the Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from the common law of England, the decisions of whose courts are of persuasive authority, but are not binding, on a court in the Cayman Islands. The rights of our shareholders and the fiduciary duties of our directors under Cayman Islands law are not as clearly established as they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands have a less developed body of securities laws than the United States. In addition, Cayman Islands companies may not have standing to initiate a shareholder derivative action in a federal court of the United States.

Shareholders of Cayman Islands exempted companies like us have no general rights under Cayman Islands law to inspect corporate records (other than the memorandum and articles of association, our register of mortgages and charges and special resolutions of our shareholders) or to obtain copies of lists of shareholders of these companies. Our directors have discretion under our articles of association to determine whether or not, and under what conditions, our corporate records may be inspected by our shareholders, but are not obligated to make them available to our shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder motion or to solicit proxies from other shareholders in connection with a proxy contest.

Certain corporate governance practices in the Cayman Islands, which is our home country, differ significantly from requirements for companies incorporated in other jurisdictions such as the United States. We may follow the home country practice for certain corporate governance practices after the closing of our initial public offering which may differ from the requirements of the Nasdaq Global Market. If we choose to follow the home country practice, our shareholders may be afforded less protection than they otherwise would under rules and regulations applicable to U.S. domestic issuers.

As a result of all of the above, our public shareholders may have more difficulty in protecting their interests in the face of actions taken by management, members of the board of directors or controlling shareholders than they would as public shareholders of a company incorporated in the United States.

Certain judgments obtained against us by our shareholders may not be enforceable.

We are a Cayman Islands exempted company and a large portion of our assets are located outside of the United States. A substantial portion of current operations are conducted in Singapore and China. In addition, many of our current directors and officers are nationals and residents of countries other than the United States. A substantial portion of the assets of these persons are located outside the United States. As a result, it may be difficult or impossible for you to bring an action against us or against these individuals in the United States in the event that you believe that your rights have been infringed under the U.S. federal securities laws or otherwise. Even if you are successful in bringing an action of this kind, the laws of the Cayman Islands, of Singapore and of China may render you unable to enforce a judgment against our assets or the assets of our directors and officers.

Fluctuations in the exchange rate between the Renminbi and the U.S. dollars, Hong Kong dollars and Singapore dollars could result in foreign currency exchange losses and could materially reduce the value of your investment.

Our sales in China are denominated in Renminbi, and our international sales are generally denominated in U.S. dollars. Our costs and capital expenditures are denominated in Renminbi, U.S. dollars and other foreign currencies, including Hong Kong dollars and Singapore dollars. Fluctuations in exchange rates could affect our net profit margins and could result in foreign exchange and operating gains or losses. In addition, our foreign currency exchange losses may be magnified by PRC exchange control regulations that restrict our ability to convert Renminbi into foreign currencies.

The value of the Renminbi against the U.S. dollars, Hong Kong dollars, Singapore dollars and other local currencies is affected by, among other things, changes in China's political and economic conditions and China's foreign exchange policies. In the long term, Renminbi may further depreciate against U.S. dollars or other foreign currencies, depending on the market supply and demand with reference to a basket of currencies. It is difficult to predict how long this current situation may last and when and how it may change again.

In addition, we are a holding company and we rely on dividends primarily from our operating subsidiaries for our cash needs. Although we have not received any dividend from our operating subsidiaries in the PRC, we may receive such dividends in the future. Any significant revaluation of the Renminbi may materially and adversely affect our results of operations and financial position reported in Renminbi when translated into U.S. dollars, and the value of, and any dividends payable on, the ADSs in U.S. dollars. To the extent that we need to convert U.S. dollars we receive from our public offerings into Renminbi for our operations, appreciation of the Renminbi against the U.S. dollars would have an adverse effect on the Renminbi amount we would receive. Conversely, if we decide to convert our Renminbi into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs or for other business purposes, appreciation of the U.S. dollars against the Renminbi would have a negative effect on the U.S. dollars amount.

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to United States domestic public companies.

We currently report under the Exchange Act as a non-U.S. company with foreign private issuer status. Because we qualify as a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the Exchange Act that are applicable to U.S. domestic public companies, including:

- the sections of the Exchange Act regulating the solicitation of proxies, consents, or authorizations in respect of a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and
- the selective disclosure rules by issuers of material nonpublic information under Regulation FD.

We are required to file an annual report on Form 20-F within four months of the end of each fiscal year. In addition, we intend to publish our results on a quarterly basis through press releases, distributed pursuant to the rules and regulations of the Nasdaq Global Market. Press releases relating to financial results and material events will also be furnished to the SEC on Form 6-K. However, the information we are required to file with or furnish to the SEC will be less extensive and less timely than that required to be filed with the SEC by U.S. domestic issuers. As a result, you may not be afforded the same protections or information that would be made available to you were you investing in a U.S. domestic issuer.

The voting rights of holders of ADSs are limited by the terms of the deposit agreement, and you may not be able to exercise your right to vote your ordinary shares.

As a holder of the ADSs, you will only be able to exercise the voting rights with respect to the underlying Class A ordinary shares represented by your ADSs in accordance with the provisions of the deposit agreement. Under the deposit agreement, you must vote by giving voting instructions to the depository. Upon receipt of your voting instructions, the depository will vote the underlying Class A ordinary shares represented by your ADSs in accordance with these instructions. You will not be able to directly exercise your right to vote with respect to the underlying ordinary shares represented by your ADSs unless you cancel and withdraw such ordinary shares. Under our amended and restated memorandum and articles of association, the minimum notice period required for convening a general meeting is at least ten calendar days. When a general meeting is convened, you may not receive sufficient advance notice to withdraw the underlying Class A ordinary shares represented by your ADSs to allow you to vote with respect to any specific matter. If we ask for your instructions, the depository will notify you of the upcoming vote and will arrange to deliver our voting materials to you. We cannot assure you that you will receive the voting materials in time to ensure that you can instruct the depository to vote the underlying Class A ordinary shares represented by your ADSs. In addition, the depository and its agents are not responsible for failing to carry out voting instructions or for their manner of carrying out your voting instructions. This means that you may not be able to exercise your right to vote and you may have no legal remedy if the underlying Class A ordinary shares represented by your ADSs are not voted as you requested.

The depository for the ADSs will give us a discretionary proxy to vote our ordinary shares underlying your ADSs if you do not vote at shareholders' meetings, except in limited circumstances, which could adversely affect your interests.

Under the deposit agreement for the ADSs, if you do not vote, the depository may give us a discretionary proxy to vote the ordinary shares underlying the ADSs at shareholders' meetings if we have timely provided the depository with notice of meeting and related voting materials and (i) we have instructed the depository that we wish a discretionary proxy to be given, (ii) we have informed the depository that there is no substantial opposition as to a matter to be voted on at the meeting, and (iii) a matter to be voted on at the meeting would not have a material adverse impact on shareholders.

The effect of this discretionary proxy is that you cannot prevent the underlying ordinary shares represented by the ADSs from being voted, except under the circumstances described above. This may make it more difficult for holders to influence the management of the Company. Holders of ordinary shares are not subject to this discretionary proxy.

ADS holders may not be entitled to a jury trial with respect to claims arising under the deposit agreement, which could result in less favorable outcomes to the plaintiff(s) in any such action.

The deposit agreement governing the ADSs representing our Class A ordinary shares provides that, to the fullest extent permitted by law, ADS holders waive the right to a jury trial of any claim they may have against us or the depository arising out of or relating to our shares, the ADSs or the deposit agreement, including any claim under the U.S. federal securities laws. As the waiver relates to claims arising as a matter of contract in relation to the ADSs, we believe that, as a matter of construction of the clause, the waiver would likely to continue to apply to ADS holders who withdraw the Class A ordinary shares represented by the ADSs from the ADS facility with respect to claims arising before the withdrawal, and the waiver would most likely not apply to ADS holders who subsequently withdraw the Class A ordinary shares represented by ADSs from the ADS facility with respect to claims arising after the withdrawal. However, to our knowledge, there has been no case law on the applicability of the jury trial waiver to ADS holders who subsequently withdraw the Class A ordinary shares represented by the ADSs from the ADS facility.

If we or the depository oppose a jury trial demand based on the waiver, the court would determine whether the waiver was enforceable based on the facts and circumstances of that case in accordance with the applicable state and federal law. To our knowledge, the enforceability of a contractual pre-dispute jury trial waiver in connection with claims arising under the federal securities laws has not been finally adjudicated by the United States Supreme Court. However, we believe that a contractual pre-dispute jury trial waiver provision is generally enforceable, including under the laws of the State of New York, which govern the deposit agreement, by a federal or state court in the City of New York, which has non-exclusive jurisdiction over matters arising under the deposit agreement. In determining whether to enforce a contractual pre-dispute jury trial waiver provision, courts will generally consider whether a party knowingly, intelligently and voluntarily has waived the right to a jury trial. We believe that this is the case with respect to the deposit agreement and the ADSs. It is advisable that you consult legal counsel regarding the jury waiver provision before investing in the ADSs.

If you or any other holders or beneficial owners of ADSs, including purchasers of ADSs in secondary market transactions, bring a claim against us or the depository in connection with matters arising under the deposit agreement or the ADSs, including claims under federal securities laws, you or such other holder or beneficial owner may not be entitled to a jury trial with respect to such claims, which may have the effect of increasing the cost of bringing a claim and limiting and discouraging lawsuits against us and the depository. If a lawsuit is brought against either or both of us and the depository under the deposit agreement, it may be heard only by a judge or justice of the applicable trial court, which would be conducted according to different civil procedures and may result in different outcomes than a trial by jury would have, including results that could be less favorable to the plaintiff(s) in any such action.

Nevertheless, if this jury trial waiver provision is not permitted by applicable law, an action could proceed under the terms of the deposit agreement with a jury trial. No condition, stipulation or provision of the deposit agreement or ADSs serves as a waiver by any holder or beneficial owner of ADSs or by us or the depository of compliance with U.S. federal securities laws and the rules and regulations promulgated thereunder.

You have the right to arbitration under the deposit agreement. However, it may not be most beneficial.

The deposit agreement provides that ADS holders and the depository have the right to elect to have any claim they may have against us arising out of or relating to the Class A ordinary shares or ADSs or the deposit agreement settled by arbitration in New York, New York rather than in a court of law, and to have any judgment rendered by the arbitrators entered in any court having jurisdiction. An arbitral tribunal in any such arbitration would not have the authority to award any consequential, special, or punitive damages and its award would have to conform to the provisions of the deposit agreement. The deposit agreement does not give us the right to require that any claim, whether brought by us or against us, be arbitrated.

The deposit agreement may be amended or terminated without your consent.

We may amend or terminate the deposit agreement without your consent. If you continue to hold your ADSs after an amendment to the deposit agreement, you agree to be bound by the deposit agreement as amended. However, amendment to certain rights that may increase costs or prejudice a substantial right of ADS holders will not take effect until 30 days after notice thereof in accordance with the deposit agreement.

You, as holders of ADSs, may have fewer rights than holders of our ordinary shares and must act through the depository to exercise those rights.

Holders of ADSs do not have the same rights as our registered shareholders. As a holder of the ADSs, you will not have any direct right to attend general meetings of our shareholders or to cast any votes at such meetings. You will only be able to exercise the voting rights that are carried by the underlying Class A ordinary shares represented by your ADSs indirectly in accordance with the provisions of the deposit agreement. Under the deposit agreement, you may vote only by giving voting instructions to the depository. Upon receipt of your voting instructions, the depository will try, as far as is practicable, to vote the underlying Class A ordinary shares represented by your ADSs in accordance with your instructions. If we ask for your instructions, then upon receipt of your voting instructions, the depository will try to vote the underlying Class A ordinary shares represented by your ADSs in accordance with these instructions. If we do not instruct the depository to ask for your instructions, the depository may still vote in accordance with instructions you give, but it is not required to do so. You will not be able to directly exercise your right to vote with respect to the underlying ordinary shares represented by your ADSs unless you withdraw such ordinary shares and become the registered holder of such shares prior to the record date for the general meeting.

You may experience dilution of your holdings due to the inability to participate in rights offerings.

We may, from time to time, distribute rights to our shareholders, including rights to acquire securities. Under the deposit agreement, the depositary will not distribute rights to holders of ADSs unless the distribution and sale of rights and the securities to which these rights relate are either exempt from registration under the Securities Act with respect to all holders of ADSs, or are registered under the provisions of the Securities Act. The depositary may, but is not required to, attempt to sell these undistributed rights to third parties, and may allow the rights to lapse. We may be unable to establish an exemption from registration under the Securities Act, and we are under no obligation to file a registration statement with respect to these rights or underlying securities or to endeavor to have a registration statement declared effective. Accordingly, holders of ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.

You may be subject to limitations on the transfer of your ADSs.

Your ADSs are transferable on the books of the depositary. However, the depositary may close its books at any time or from time to time when it deems it expedient in connection with the performance of its duties. The depositary may close its books from time to time for a number of reasons, including in connection with corporate events such as a rights offering, during which time the depositary needs to maintain an exact number of ADS holders on its books for a specified period. The depositary may also close its books in emergencies, and on weekends and public holidays. The depositary may refuse to deliver, transfer or register transfers of our ADSs generally when our share register or the books of the depositary are closed, or at any time if we or the depositary thinks it is advisable to do so because of any requirement of law or of any government or governmental body, or under any provision of the deposit agreement, or for any other reason.

If we fail to maintain an effective system of internal controls, our ability to accurately and timely report our financial results or prevent fraud may be adversely affected, and investor confidence and the market price of the ADSs may be adversely affected.

We are subject to reporting obligations under the U.S. securities laws. The SEC, as required under Section 404 of the Sarbanes-Oxley Act of 2002, adopted rules requiring every public company to include a management report on such company's internal control over financial reporting in its annual report, which contains management's assessment of the effectiveness of the company's internal control over financial reporting. We were subject to such requirement starting from fiscal year 2020. As we are no longer an "emerging growth company" since December 31, 2024 as such term is defined in the Jumpstart Our Business Startups Act of 2012 (as amended by the Fixing America's Surface Transportation Act of 2015), or the JOBS Act, an independent registered public accounting firm for a public company must issue an attestation report on the effectiveness of our internal control over financial reporting.

Our management has concluded that our internal control over financial reporting was effective as of December 31, 2024. See "Item 15. Controls and Procedures—Management's Annual Report on Internal Control over Financial Reporting."

However, if we fail to maintain the adequacy of our internal control over financial reporting, as these standards are modified, supplemented or amended from time to time, we may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404. If we fail to achieve and maintain an effective internal control environment, we could suffer material misstatements in our financial statements and fail to meet our reporting obligations, which would likely cause investors to lose confidence in our reported financial information. This could in turn limit our access to capital markets, harm our results of operations, and lead to a decline in the trading price of the ADSs. Additionally, ineffective internal control over financial reporting could expose us to increased risk of fraud or misuse of corporate assets and subject us to potential delisting from the stock exchange on which we list, regulatory investigations and civil or criminal sanctions. We may also be required to restate our financial statements for prior periods. Furthermore, we have incurred and anticipate that we will continue to incur considerable costs, management time and other resources in an effort to comply with Section 404 of the Sarbanes-Oxley Act and other requirements. Moreover, ineffective internal control over financial reporting could significantly hinder our ability to prevent fraud.

We have incurred and expect to continue to incur significant costs as a public company, which could lower our profits or make it more difficult to run our business.

As a public company, we have incurred and expect to continue to incur significant legal, accounting and other expenses that we did not incur as a private company to ensure that we comply with the various requirements on corporate governance practices imposed by the Sarbanes-Oxley Act of 2002, as well as rules subsequently implemented by the SEC and Nasdaq Global Market.

For example, we have increased the number of independent directors and adopted policies regarding internal controls and disclosure controls and procedures. We have also incurred additional costs associated with our public company reporting requirements. We expect that these rules and regulations will continue to cause us to incur elevated legal and financial compliance costs, devote substantial management effort to ensure compliance and make some corporate activities more time-consuming and costly. We are currently evaluating and monitoring developments with respect to these rules and regulations, and we cannot predict or estimate with any degree of certainty the amount of additional costs we may incur or the timing of such costs.

As a company with less than US\$1.235 billion in net revenues for our last financial year, we qualify as an “emerging growth company” pursuant to the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other requirements that are otherwise applicable generally to public companies. These provisions include exemption from the auditor attestation requirement under Section 404 of the Sarbanes-Oxley Act of 2002 in the assessment of the emerging growth company’s internal control over financial reporting and permission to delay adopting new or revised accounting standards until such time as those standards apply to private companies. As we are no longer an “emerging growth company,” we expect to incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 and the other rules and regulations of the SEC.

In the past, shareholders of a public company often brought securities class action suits against companies following periods of instability in the market price of those companies’ securities. If we were involved in a class action suit, it could divert a significant amount of our management’s attention and other resources from our business and operations, which could harm our results of operations and require us to incur significant expenses to defend the suit. Any such class action suit, whether or not successful, could harm our reputation and restrict our ability to raise capital in the future. In addition, if a claim is successfully made against us, we may be required to pay significant damages, which could have a material adverse effect on our financial condition and results of operations.

As a foreign private issuer, we are permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly from the requirements of the Nasdaq Stock Market Rules; these practices may afford less protection to shareholders than they would enjoy if we complied fully with the Nasdaq Stock Market Rules.

As a Cayman Islands exempted company listed on the Nasdaq Global Market, we are subject to the Nasdaq Stock Market Rules. However, a foreign private issuer may elect to comply with the practice of its home country and not to comply with certain Nasdaq corporate governance requirements, including the requirements that (i) a majority of the board of directors consists of independent directors, (ii) a nominating and corporate governance committee be established that is composed entirely of independent directors and has a written charter addressing the committee’s purpose and responsibilities, (iii) a compensation committee be established that is composed entirely of independent directors and has a written charter addressing the committee’s purpose and responsibilities, and (iv) an annual meeting of shareholders be held no later than one year after the end of the issuer’s fiscal year-end. Although we have similar practices, they do not entirely conform to the Nasdaq requirements; therefore, we currently use these exemptions and intend to continue using them. Accordingly, investors will not have the same protections provided to shareholders of companies that are subject to all Nasdaq corporate governance requirements.

There can be no assurance that we will not be a passive foreign investment company for U.S. federal income tax purposes, which could result in adverse U.S. federal income tax consequences to United States Holders of our ADSs or ordinary shares.

Based upon the market price of our ADSs, the value of our assets and the nature and composition of our income and assets, we believe we were not a passive foreign investment company, or PFIC, for United States federal income tax purposes for our taxable year ended December 31, 2024, although there can be no assurance in this regard.

In general, we will be a PFIC for United States federal income tax purposes for any taxable year if, after applying the applicable look-through rules, either:

- at least 75% of our gross income is passive income; or
- at least 50% of the value of our assets (generally determined based on an average of the quarterly asset values for such year) is attributable to assets that produce or are held for the production of passive income.

The determination of whether we are a PFIC is made annually and involves extensive factual investigation, including ascertaining the fair market value of all of our assets on a quarterly basis and the character of each item of income that we earn during the relevant taxable year, and is subject to uncertainty in several respects. The determination of whether we will be a PFIC for any taxable year may also depend in part upon the value of our goodwill and other unbooked intangibles not reflected on our balance sheet (which may depend upon the market price of our ADSs or ordinary shares from time to time, which may fluctuate significantly) and also may be affected by how, and how quickly, we spend our liquid assets and the cash we generate from our operations and raise in any offering. Accordingly, there can be no assurance that we will not be a PFIC for our current or any future taxable year. Moreover, the U.S. Internal Revenue Service, or the IRS, does not issue rulings with respect to PFIC status, and we cannot assure you that the IRS, or a court, will agree with any determination we make.

If we are a PFIC for any taxable year during which a United States Holder (as defined in “Item 10. Additional Information-E. Taxation-United States Federal Income Tax Considerations”) hold our ADSs or ordinary shares, such United States Holder may be subject to certain adverse United States federal income tax consequences. For example, if we are or become a PFIC, a United States Holder may become subject to special and adverse tax rules with respect to any “excess distribution” received from the Company or any gain recognized on the sale or other disposition of the ADSs or ordinary shares. See “Item 10. Additional Information-E. Taxation-United States Federal Income Tax Considerations-Passive Foreign Investment Company.” There can be no assurance that we will not be a PFIC for the current or any future taxable year.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company

We are a Cayman Islands holding company. We have conducted our operations principally through our operating subsidiaries. On January 19, 2013, Mr. Nangeng Zhang, our chairman and chief executive officer, and his team, shipped the world’s first batch of mining machines incorporating ASIC technology to consumers in Bitcoin’s history under the brand name, *Avalon*. Later, in order to continue the developing of mining machines of Avalon brand, which was subsequently renamed *AvalonMiner* brand, Beijing Canaan Creative Information Technology Co., Ltd. was incorporated and was subsequently renamed Hangzhou Canaan Intelligence Information Technology Co., Ltd., or Hangzhou Canaan, in September 2015. Empowered by the academic training and technical expertise of our co-founders, we have focused on the design of high performance, repeated computing ICs since our inception. As we further developed, Hangzhou Canaan went through a series of capital injections and became a holding company for our PRC subsidiaries.

With the growth of our business and in order to facilitate international capital investment in us, we underwent an offshore reorganization in the first quarter of 2018. In February 2018, Canaan Cayman Holdings Ltd. was incorporated under the laws of the Cayman Islands as an exempted company with limited liability. It was later renamed Canaan Inc. in April 2018. In March 2018, in order to mirror the shareholding structure of the then shareholders of Hangzhou Canaan, we issued and allotted our ordinary shares at par value to investment holding companies held by the then shareholders of Hangzhou Canaan. Further, an intermediate holding company, Canaan Creative (HK) Holdings Limited, or Canaan HK, our wholly- owned subsidiary, was also established in Hong Kong in February 2018. In March 2018, Canaan HK acquired a 100% equity interest in Hangzhou Canaan and Canaan Inc. became our ultimate holding company. In June 2018, we completed a one-for-2,000 shares subdivision, and the number of total issued and outstanding ordinary shares became 2,000,000,000. Accordingly, our authorized share capital of US\$50,000 is divided into 1,000,000,000,000 ordinary shares of US\$0.00000005 each.

On November 21, 2019, we consummated our initial public offering (the “IPO”) on the Nasdaq Global Market, where 10,000,000 American Depositary Shares (“ADSs”) were issued at the price of US\$9.00 per ADS for a total gross proceeds of US\$90 million. Each ADS represents 15 Class A ordinary shares.

Since our IPO, as part of our efforts to expand our business globally, we have gradually established our subsidiaries in Hong Kong and moved our headquarters to Singapore.

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On April 29, 2021, we entered into a securities purchase agreement with certain institutional investors for a registered direct placement of approximately \$170.0 million of our ADS, each ADS representing 15 Class A ordinary shares of us, par value US\$0.00000005 per share, or US\$12.60 per ADS. We have also agreed to issue to the investors warrants (the “Warrants”) to purchase up to an aggregate of 4,047,620 ADSs (representing 60,714,300 Class A Ordinary Shares), at an exercise price of \$16.38 per ADS, which Warrants will have a term of three years from the date of issuance. Additionally, we issued to the placement agents of the registered direct placement (the “Placement Agents”) warrants to purchase 674,603 ADSs on substantially the same terms as the warrants sold in this offering, except that the Placement Agent warrants are exercisable at \$15.75 per ADS and shall not be transferable, with limited exceptions, for a period of 180 days.

On June 23, 2022, we entered into agreements with the above warrant holders to repurchase all the aforementioned 4,722,223 outstanding warrants of us for an aggregate purchase price of approximately US\$6.61 million. The transaction closed in June 2022, upon which the warrant liability was extinguished.

On April 8, 2022, we entered into an at the market offering agreement (as amended by the Amendment No. 1 to ATM Agreement dated as of November 23, 2022 and as may be further amended, supplemented or otherwise modified from time to time, the “ATM Agreement”), with H.C. Wainwright & Co., LLC, acting as our sole sales agent (the “Sales Agent”), relating to the sale of ADSs, each representing 15 Class A ordinary shares, par value of \$0.00000005 per share, offered pursuant to the prospectus supplement and the accompanying prospectus to the registration statement on Form F-3 (File No. 333- 255470) (such offering, the “ATM Offering”). In accordance with the terms of the ATM Agreement, we may offer and sell ADSs having an aggregate offering price of up to \$750,000,000 from time to time through the Sales Agent under such prospectus supplement and the accompanying prospectus. Effective November 10, 2023, we terminated the ATM Agreement with H.C. Wainwright & Co., LLC. We executed the above sales within ten trading days in March 2023 and did not utilize the ATM Offering after March 31, 2023. At the time of such termination, we had received net proceeds of approximately US\$4.2 million from the sale of 1,532,219 ADSs.

On November 10, 2023, we entered into an at market issuance sales agreement with B. Riley Securities, Inc. as a sales agent. From November 10, 2023 to December 31, 2023, we utilized the agreement with B. Riley Securities, Inc. for fundraising and sold 31,347,044 ADSs with net proceeds of approximately US\$61.2 million at an average price of US\$1.99 per ADS.

On November 27, 2023, we entered into a securities purchase agreement with an institutional investor (the “Buyer”), pursuant to which we agreed to issue and sell to the Buyer up to 125,000 Series A Preferred Shares at the price of US\$1,000.00 for each Series A Preferred Share (the “Series A Preferred Shares Financing”). The Series A Preferred Shares Financing was conducted in three tranches. The first tranche and second tranche of the Series A Preferred Shares Financing were closed on December 11, 2023 and January 22, 2024, raising total gross proceeds of US\$25 million and US\$50 million, respectively. On September 27, 2024, we closed the third and final tranche of the Series A Preferred Shares Financing, raising additional total gross proceeds of US\$50 million. As of the date of this annual report, the third tranche of 50,000 Series A Preferred Shares are issued and outstanding, and 8,000,000 ADSs are issued and outstanding as pre-delivery shares for Series A Preferred Shares Financing.

On November 19, 2024, the Company entered into a securities purchase agreement with the Buyer, pursuant to which the Company agreed to issue and sell to the Buyer 30,000 Series A-1 Convertible Preferred Shares (the “Series A-1 Preferred Shares”) at the price of US\$1,000.00 for each Series A-1 Preferred Share. On November 25, 2024, we closed the Series A-1 preferred shares financing, raising total gross proceeds of US\$30 million. All aforementioned Series A-1 Preferred Shares have been converted into Class A ordinary shares.

On December 23, 2024, we entered into a sales agreement (the “ATM Agreement”) with Macquarie Capital Limited, Keefe, Bruyette & Woods, Inc., China Renaissance Securities (Hong Kong) Limited, Compass Point Research & Trading, LLC, Craig-Hallum Capital Group LLC, Northland Securities, Inc., Rosenblatt Securities Inc., The Benchmark Company, LLC, and B. Riley Securities Inc. as sales agents. We filed a new prospectus supplement dated December 23, 2024, setting up the new at-the-market equity offering program (the “ATM Program”), under which we may sell up to an aggregate of US\$270 million of the ADSs, each representing fifteen Class A ordinary shares of the Company, through or to the sales agents. From December 23, 2024, to March 26, 2025, the date of our earnings release for the fourth quarter of 2024, we utilized the ATM Program for fundraising and sold 21,088,579 ADSs with net proceeds of approximately US\$42.5 million at an average price of US\$2.08 per ADS. We did not utilize the ATM after February 19, 2025 as of the filing date of the 2024 annual report.

On March 6, 2025, we entered into a Securities Purchase Agreement with an institutional investor, relating to the purchase of up to 200,000 Series A-1 Preferred Shares at US\$1,000.00 for each Series A-1 Preferred Share, providing with total gross proceeds of up to US\$200 million (the “Preferred Shares Financing”). The first tranche closing under the Preferred Shares Financing was completed on March 10, 2025, where an initial US\$100 million has been received. We also delivered 7,000,000 ADSs as pre-delivery shares. According to the Securities Purchase Agreement, the closing of the second tranche of preferred shares financing (the “Second Tranche”), would be contingent upon the fulfillment of certain conditions and mutual agreement between us and the institutional investor. As of the date of this annual report, neither we are obliged to sell, nor the institutional investor is obliged to purchase for the Second Tranche.

The principal executive offices of our main operations are located at 28 Ayer Rajah Crescent #06-08, S139959, Singapore. Our telephone number at this address is +65 6305 6618. Our registered office in the Cayman Islands is located at P.O. Box 31119, Grand Pavilion, Hibiscus Way, 802 West Bay Road, Grand Cayman, KY1-1205, Cayman Islands. Investors should submit any inquiries to the address and telephone number of our principal executive offices set forth above.

SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC on www.sec.gov. You can also find such information on our website <https://investor.canaan-creative.com>.

B. Business Overview

We primarily focus on providing crypto mining solutions through our proprietary ASICs. We have strong ASIC chip design capability underpinned by over ten years of industry experience and the expertise of our founders and management team. We are one of the few fabless IC design companies with the advanced technology to independently design ASIC, established access to leading wafer foundry capacity and proven in-house capability to produce Bitcoin mining machines. We primarily dedicated technology and expertise in ASIC applications to Bitcoin mining machines and are a leading producer of Bitcoin mining machines in the global market. In addition, with our technology expertise and know-how in ASIC chip design, our operating subsidiaries have delivered Risc-V architecture-based edge computing chips applicable to smart digital devices. We believe our extensive experience and expertise in ASIC applications position us well in our future endeavors.

Leveraging our deep understanding of the cryptocurrency industry and strong technology as applied to ASIC chip design, we intend to capture the growth opportunity along the value chain of the cryptocurrency industry to enhance our offerings and achieve more stable financial performance. We have started with the Bitcoin mining business through our strategic collaboration with certain cryptocurrency mining farms and aim to develop the Bitcoin mining business as the second engine to capitalize on the Bitcoin ecosystem and synergize with our bitcoin mining machines sales. We also intend to engage in Bitcoin mining through self-owned facilities. We endeavor to grow our deployed computing power for mining and improve the energized hash rate to enhance our mining business. For the years ended December 31, 2022, 2023 and 2024, we generated revenue of US\$32.5 million, US\$34.0 million and US\$44.0 million from the Bitcoin mining business, respectively.

We have developed competitive advantages in our business and technological capabilities, including the following:

- Our expertise in the development, designing and production of Bitcoin mining machines;
- Our mastery of the whole IC design process;
- Our years of accumulated engineering experience in applying theoretical research to the mass production of new products;
- Our ability to achieve a fast time-to-market with our products and our successful early monetization of the ASIC design in blockchain applications have provided us with an early advantage with respect to both technology and capital reserve to pursue our strategic initiatives;
- Our breakthroughs in various technological fields to improve ASIC performance, such as low voltage and high power efficiency operations and high computing density, all of which are crucial features for ASICs for blockchain;
- Our ownership of most of the intellectual property we employ, and our accumulation of valuable know-how and multiple generations of proprietary silicon data through our long-term ASIC design experience;

- Our long-term partnerships with leading global suppliers, which have enabled us to achieve high-quality, high yield rate and stable production;
- Our penetration into the Bitcoin mining business by leveraging our experience in Bitcoin mining machines production and sales, as well as our relationship with global mining farms; and

Our Business Model

We are a fabless IC designer engaged in the front-end and back-end of IC design, which are the major components of the IC product development chain. We currently dedicate our technology and expertise in ASIC chip design to Bitcoin mining machines and edge computing chips. We, through our operating subsidiaries, independently design and develop our products in-house, including the design of proprietary ASIC chips for our Bitcoin mining machines. Front-end IC design and back-end IC design are the key parts of the IC design process. We determine the parameters of the IC chip, establish the basic logic of the design, map out the initial plan for the physical layout, and conduct back-end verification on the design. We then work closely with industry-leading third-party suppliers to fabricate, test and package the IC products we design.

Moreover, we have established in-house production capabilities to assemble both Bitcoin mining machines and edge computing chips. We primarily assemble our Bitcoin mining machines at our assembly plant in the PRC and through collaborations with selected assembly partners in Southeast Asia, by integrating our self-designed ICs with other sourced components. We believe our outstanding technical expertise and production experience in IC development chain enable us to continuously introduce ICs with higher performance and power efficiency for application in both the blockchain and edge computing chip fields.

In addition, we have started with the Bitcoin mining business through our strategic collaboration with certain cryptocurrency mining farms and aim to develop the Bitcoin mining business as the second engine to capitalize on the Bitcoin ecosystem and synergize with our Bitcoin mining machines sales. We also intend to engage in Bitcoin mining through self-owned facilities. As we endeavor to grow our deployed computing power for mining and improve the energized hash rate to enhance our mining business, we believe that such business will play a more significant role in supplementing our Bitcoin mining machines sales, mitigating our inventory risks and contributing to our financial and operating results.

Our Products

Bitcoin Mining Machines

Our technology and expertise in ASIC applications are primarily dedicated to the design, development, production and sales of our proprietary ASIC-based Bitcoin mining machines under the AvalonMiner brand. We, through our operating subsidiaries, offer a single line of Bitcoin mining machines, under the AvalonMiner brand to customers in North America, West Asia, Southeast Asia, Europe, Africa, and other countries across the globe. Our AvalonMiner Bitcoin mining machines feature our proprietary ASICs, and the ASICs are integrated with other components we procured, including a circuit board, PMU boards, a cooling fan, heat sensors, and enclosed with an aluminum casing. Historically, we introduced new series of Bitcoin mining machines almost every year incorporating the latest technological development in terms of ASIC design and process technology. We, through our operating subsidiaries, also sell Bitcoin mining machine parts and accessories, including power supply units, fans, cables, and containers for mining machines that our customers, especially our overseas customers, purchase along with Bitcoin mining machines.

Set forth below are certain specifications of our selected AvalonMiner products.

Bitcoin Mining Machine	Release Year	Computing Power (TH/s)	Power Consumption (J/THs)
A8 Series	2018	13-15	109.0
A9 Series	2019	20	72.5
A10 Series	2019	50	65.0
A11 Series	2019	68-81	42.0-47.0
A12 Series	2020	90	38.0
A13 Series	2022	110-130	25.0-30.0
A14 Series	2023	150	21.5
A15 Series	2024	218-261	16.8-19

Our immersion-cooled mining machines are specifically designed to be deployed in quiet immersion-cooled environments, featuring relatively higher hash rate, better overclocking capability, more efficient heat dissipation, and reduced wear-and-tear compared to traditional air-cooled mining machines. Our most advanced immersion-cooled mining machine model is Avalon A1566I with a designed hash rate of 261TH/s.

Leveraging our deep understanding of the cryptocurrency industry and strong technology as applied to ASIC chip design, we have started with the Bitcoin mining business through our strategic collaboration with certain cryptocurrency mining farms and aim to develop the Bitcoin mining business as the second engine to capitalize on the Bitcoin ecosystem and synergize with our bitcoin mining machines sales. Along with the deployment of our Bitcoin mining machines into our Bitcoin mining business, as of December 31, 2024, the net carrying value of mining equipment located in Ethiopia and North America was US\$17.6 million and US\$3.0 million, respectively.

Avalon Box: Integrated One-Stop Bitcoin Mining Solutions

In recent years, we further expanded our product offerings by introducing the Avalon Box, an integrated, containerized bitcoin mining solution designed to streamline computing power deployment and enhance mining operational efficiency. Tailored for industrial-scale mining operations, the Avalon Box combines optimized ventilation and cooling systems, and plug-and-play infrastructure within a mobile and scalable container that enables the adaptation of high-performance Avalon miners. This turnkey solution enables rapid on-site deployment in diverse geographies, offering miners enhanced flexibility. Leveraging our design and manufacturing expertise, the Avalon Box strengthens our commitment to delivering holistic, infrastructure-ready mining systems that address the evolving needs of global mining enterprises.

Avalon Home: Consumer-Level Bitcoin Mining Devices

To further democratize access to bitcoin mining, we launched the Avalon Home series in 2024, a new line of compact, energy-efficient mining devices crafted for individual users and home environments. The Avalon Home series represent our first step into the consumer mining market, blending reliable hash rate output with user-friendly interfaces, low noise operation, and streamlined connectivity. These products are ideal for individual enthusiasts and early adopters seeking to participate in the Bitcoin ecosystem without the complexity of industrial setups. With the Avalon Home series, we aim to empower a broader range of users to support network decentralization and engage with digital assets from the comfort of their homes. Our Avalon Home series currently encompass the Avalon Nano 3/3S, a desktop mining heater; the Avalon Mini 3, a quiet home heater with integrated mining capabilities; and the Avalon Q, our first low-noise home mining device that supports 110V, and are compatible with major global voltage standards.

ASICs for Edge Computing Applications

We, through our operating subsidiaries, began to develop ASICs for edge computing applications since 2016 and completed the tape-out of our edge computing chips in June 2018. Our edge computing chips are miniaturized chips characterized by high-performance and low energy consumption. Each edge computing chip is designed with an artificial neural-network and high-performance processors, which mainly provides heterogeneous, real-time and off-line edge computing applications. We, through our operating subsidiaries, have delivered commercial edge computing chips based on Risc-V architecture and self-developed neural-network accelerator with outstanding performance. Through the development of various generations of ASICs for Bitcoin mining, we have accumulated significant experience in reducing the size and increasing the power efficiency of the ASICs while achieving high computing power.

Set forth below is a summary of the milestones and status of the development of our edge computing chip products.

Product	Status
Kendryte K210 - 28nm	<ul style="list-style-type: none">● Released in September 2018● Mass production and shipment of final products in 4th quarter 2018
Kendryte K510 - 28nm	<ul style="list-style-type: none">● Released in July 2021● Mass production and shipment of final products in 4th quarter 2021
Kendryte K230 - 12nm	<ul style="list-style-type: none">● Released in November 2022● Mass production and shipment of final products in 1st quarter 2024

Our edge computing chips empower our clients to provide edge computing solutions in the field of IoT through its machine vision and machine hearing capabilities. These capabilities have the potential to be applied in a number of solutions in the field of IoT that involve automation, image and voice recognition, motion control and authentication. Our edge computing chips can also be used for the several applications. For example, image and voice recognition can be used as an authentication method for devices, such as machine vision-powered face unlock for smart door-locks, and commercial transactions, such as smart entrances.

To enhance the robustness of our edge computing ecosystem and ultimately to provide better user experiences, we offer comprehensive developer support to facilitate the development of edge computing applications. We, through our operating subsidiaries, have also actively explored collaboration with business partners and have integrated our edge computing chips in different IoT vertical markets, such as smart locks and smart meters.

Sales and Marketing

We, through our operating subsidiaries, conduct the marketing of our Bitcoin mining machines mainly through word of mouth, press releases of our product launches and exhibitions when we launch a new product. Certain of our available products are also advertised on our website, which is updated periodically. From time to time, we, through our operating subsidiaries, maintain a presence on social media in order to raise awareness of our brand. In the first half of 2022, we, through our operating subsidiaries, launched an online store mainly targeting retail customers from overseas markets. In 2024, our online stores and channels have reached 80 countries and regions.

We have assembled a dedicated team of marketing personnel and software engineers to focus on the development and marketing of our edge computing chip products. To generate interest from our customers, we actively promote our latest research and development achievements and display our sample products. We are also in the process of working with a number of industry participants to further explore their interest in our edge computing products.

Our Customer Base

Historically, a substantial portion of our revenues were generated from the sales to customers located in the PRC. Because of the adverse changes in the PRC regulatory environment, we have expanded into global markets and began to generate considerable sales from customers outside the PRC. We generated 97.2%, 34.3% and 69.7% of our total revenues generated from sales of Bitcoin mining machines and related parts and accessories from sales to customers outside the PRC, in 2022, 2023 and 2024, respectively.

Bitcoin Mining Machines

We, through our operating subsidiaries, generally sell our Bitcoin mining machines and related parts and accessories to individual or corporate customers on a first-pay-first-serve basis, though we prioritize certain customers that we believe have stronger potential for a longer-term relationship. Our operating subsidiaries generally do not enter into long-term agreements with our mining machine customers. Sales are typically made on one-off sales contract or purchase order bases. Our mining machines are primarily distributed through direct sales, but we also sell through distributors. In certain regions, such as Southeast Asian countries, sales through distributors can be very significant. Nevertheless, our operating subsidiaries do not restrict resales of our mining machine products by our customers. Except for situations where our Bitcoin mining machines have major defects upon delivery, our customers cannot return or exchange their purchases for upgrades, even in the event that their old Bitcoin mining machines may no longer be economical for Bitcoin mining purposes.

To align with the geographical evolution of our clients' locations, we have expanded into global markets and the revenue contribution from customers outside the PRC, such as customers in North America, West Asia, Southeast Asia, Europe and Africa, accounted for 69.7% of our total revenues generated from sales of Bitcoin mining machines and related parts and accessories in 2024.

Edge Computing Applications

Our edge computing applications are primarily sold to companies in the IoT industry. We plan to increase our sales and marketing efforts to cover major customer groups in the IoT field. While our current distribution method is to sell our edge-computing ASICs directly to smart device developers, we plan to also sell our products through distributors in the future.

Research and Development

We became a global pioneer in offering ASIC solutions for blockchain computation purposes as a result of the work done by our research and development team led by Mr. Nangeng Zhang, our chairman and chief executive officer. Mr. Zhang and his team invented one of the first cryptocurrency mining machines incorporating ASIC technology.

To implement our research and development roadmap and our plan to diversify our product offering, members of our research and development team are primarily organized under two focus groups, including (i) a high power-efficiency computing group consisting of 151 team members, which is responsible for chip design and optimization and (ii) an edge computing chip products group consisting of 112 team members, which are responsible for the design of our Kendryte series including algorithm optimization and end application, both as of December 31, 2024.

As of December 31, 2024, our research and development team is comprised of 263 members, representing approximately 56.8% of our total employees. Our research and development team includes 155 members with a master's degree or above. In addition, Mr. Zhang, as our chairman and chief executive officer, leads our research and development efforts and has extensive experience in the industry. The members of our research and development team have relevant educational backgrounds, including undergraduate and advanced degrees in computational science and design and other relevant fields, and many are fluent in multiple coding languages. Many of our research and development personnel have gained relevant design and engineering experiences at other leading IC design houses.

We believe we are one of the few companies in the world to possess advanced technological know-how for ASIC design, including algorithm development and optimization, standard cell design and optimization, low voltage and high power efficiency operations, design of high performance system and heat dissipation technology. We, through our operating subsidiaries, are devoted to in-house research and development of core advanced technologies, such as energy-efficient computing. As it requires a substantial amount of time and production engineering experience to integrate the results of research and development and master the core technologies in the ASICs field, we have created high barriers to entry against our competitors.

Research and Development Achievements

Our research and development efforts have yielded significant results that enable us to establish our brand recognition and our competitive position. Some of our research and development results are protected by copyrights and patents while the rest are part of our proprietary trade secrets. As of December 31, 2024, we, through our subsidiaries, have registered 298 patents in the PRC, 32 patents in Hong Kong, 3 patents in Taiwan, 16 patents in the Singapore, 30 patents in Australia, 15 patents in the United Kingdom, 20 patents in the United States, 13 patents in the Eurasian Patent Organization, 10 patents in the Canada, 46 patents in the European Union Intellectual Property Office, one patent in the European Patent Office, three patents in the Japan, and one patent in the Korea. The total of 488 patents include 138 inventions, 147 utility model patents and 203 exterior design patents. We have also, through our PRC subsidiaries, registered 127 software copyrights and 82 IC layout-design rights in the PRC, as of December 31, 2024.

Research and Development Roadmap

The core strength of our capabilities consists of designing products with high computing power and high energy efficiency. We aspire to develop advanced IC designs for high performance computing hardware and innovative applications. We follow a market-oriented research and development approach, and we focus on research and development projects that have a relatively clear path toward market acceptance and commercialization opportunities.

Production

Our Fabless Model

We do not directly manufacture ICs used for our products. Instead, we utilize what is known as a fabless model, whereby we, through our operating subsidiaries, cooperate with world-class production partners for all phases of the manufacturing process of our ICs, including wafer fabrication and packaging and testing. Under the fabless model, we are able to leverage the expertise of industry leaders that are certified by the ISO in such areas as fabrication, assembly, quality control and assurance, reliability and testing. In addition, the fabless model allows us to avoid many of the significant costs and risks associated with owning and operating various fabrication and packaging and testing facilities. Our fabrication partners are responsible for procurement of the majority of the raw materials used in the production of our ICs. As a result, we can focus our resources on research and development, product design and additional quality assurances.

We, through our operating subsidiaries, partner with leading global production partners. Considering the chip capacity shortage and supply chain restrictions that the semiconductor market has encountered, our operating subsidiaries maintain our cooperation with more than one production partners and suppliers in order to diversify our supply base and reduce supplier centralization risk. Our research and development team has been working to improve our chip designs to be compatible with chip node of different sizes and different manufacturing environments.

IC Fabrication

We, mainly through our operating subsidiaries, partner with two leading third-party foundry partners for IC fabrication. We generally enter into a three-year framework agreement with such third-party foundry partners to ascertain their production resource that can be allocated to us before we place an order according to our business need. Once an order is placed and accepted, we are generally required to prepay at least 50% of the purchase price in order to secure production capacity. The wafers are delivered in an average of four to six months from the time when an order is placed.

Packaging and Testing

We, through our operating subsidiaries, work with leading packaging and testing partners. According to our agreements, we provide rolling forecasts and firm orders for our packaging and testing partners to purchase necessary materials. Our operating subsidiaries typically settle with our packaging and testing partners on a monthly basis and are required to pay them within 30 days upon receipt of invoices.

Assembly Plant

We have in-house capabilities to produce our products at our assembly plant located in the PRC with a total gross floor area of 7,465.5 square meters. Also, leveraging our Singapore headquarters, we have diversified our supply chain by adding production and logistic resources in Southeast Asia in the second quarter of 2022. Subject to the amount of ICs obtained from our production partners, we have the flexibility to adjust the production capacity of our Bitcoin mining machines. For example, we can adjust the assembly worker's shifts in response to the purchase orders we receive.

Quality Control

We emphasize quality control in all aspects of our operations. From product development, component sourcing to product assembly and delivery, we strictly control the quality of our products and components, to ensure our Bitcoin mining machines meet our stringent internal standards as well as international and industry standards. We also require our fabrication, packaging and testing service providers to apply their stringent quality control standards. In particular, among the certifications obtained from other jurisdictions, our operating subsidiaries have attained the CE certification and U.S. Federal Communication Commission certification for some of our AvalonMiner products.

We, through our operating subsidiaries, have implemented various quality-control checks into our production process and the IC fabrication process by our production partners. In addition, we provide timely and effective after-sales services and support to our users.

We, through our operating subsidiaries, devote significant resources to quality control of our products with a dedicated team.

Warranty and After Sales Services

We, through our operating subsidiaries, provide warranties of 360 days, which we believe is in line with prevailing industry practice. Our warranties cover regular maintenance services and parts and labor for repairs. The components used in our products are typically covered by warranties provided by the respective suppliers.

We, through our operating subsidiaries, have devised a standard operating procedure for customer service. By the end of year 2024, we have expanded our service capabilities with over 20 aftersales service stations worldwide. We, through our operating subsidiaries, collect and record customer feedback and complaints from different channels and make timely responses in order to achieve customer satisfaction.

We, through our operating subsidiaries, accept exchanges of our Bitcoin mining machines only for major defects. None of our operating subsidiaries has received any requests for exchange which, individually or in aggregate, has had a material adverse effect on our business and financial condition. In addition, as of the date of this annual report, none of our operating subsidiaries has experienced any product recall that adversely impacted our reputation, business operations or financial condition.

Competition

Cryptocurrency mining machines comprise the overwhelming majority of blockchain hardware. The global Bitcoin mining machine market is relatively concentrated with a few large players. Most of our leading competitors are based in the PRC.

We expect that competition in the Bitcoin mining industry will continue to be intense as we compete not only with existing players that have been focused on Bitcoin mining, but also new entrants that include well-established players in the semiconductor industry, and players who were not predisposed to this industry in the past. As more people invest in Bitcoin and cryptocurrencies, more semiconductor industry players are trying to design chips for Bitcoin mining. With our years of experience designing and producing ASIC chips and mining machines, we have built up competitive strengths that have enabled us to navigate the volatility of the Bitcoin prices and demand. We expect to face competition from existing and new players that are more established than us. Some of these competitors may also have stronger brand names, greater access to capital, longer histories, longer relationships with their suppliers or customers and more resources than we do.

Intellectual Property

We consider our patents, IC layout and design rights, copyrights, trademarks, domain names, know-how, proprietary technologies and similar intellectual property critical to our success, and we rely on a combination of protections provided by patents, IC layout design rights, copyrights, trademark and trade secret law and confidentiality agreements, non-compete agreements and nondisclosure agreement with our employees and others to protect our proprietary rights. As of December 31, 2024, we, through our operating subsidiaries, had registered had registered 602 trademarks, including 99 in the PRC, 58 in Hong Kong, 41 in Republic of Singapore, 31 in European Union, 35 in Kazakhstan, 30 in the United Kingdom, 29 in Malaysia, 28 in Russia, 27 in Commonwealth of Australia, 20 in Japan, 18 in Republic of Korea, 18 in the Kingdom of Norway, 18 in Indonesia, 17 in the United States, 17 in Iceland, 17 in the United Arab Emirates, 16 in Taiwan, 15 in Kingdom of Thailand, 14 in Republic of Turkey, nine in Argentina, eight in Canada, 8 in Uruguay, eight in Republic of the Philippines, six in United Mexican States, six in Republic of Peru, four in Grenada, three in India, and two in Malaysia.

As of December 31, 2024, we, through our subsidiaries, have registered 298 patents in the PRC, 32 patents in Hong Kong, three patents in Taiwan, 16 patents in Singapore, 30 patents in Australia, 15 patents in the United Kingdom, 20 patents in the United States, 13 patents in the Eurasian Patent Organization, 10 patents in Canada, 46 patents in the European Union Intellectual Property Office, one patent in the European Patent Office, three patents in Japan, and one patent in Korea. The total of 488 patents includes 138 invention patents, 147 utility model patents, and 203 exterior design patents. We have also, through our PRC subsidiaries, registered 127 software copyrights and 82 IC layout-design rights in the PRC, as of December 31, 2024.

Proprietary know-how that is not patentable and proprietary technologies and processes for which patents, IC layout design rights and copyrights are difficult to enforce are also of significant importance to our operations. We rely on trade secret protection and confidentiality agreements to safeguard our interests in this respect. Certain elements in our operations are not covered by patents, IC layout design rights or copyrights. Our operating subsidiaries have taken security measures to protect these elements.

Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our technology. Monitoring unauthorized use of our technology is difficult and costly, and we cannot be certain that the steps our operating subsidiaries have taken will prevent misappropriation of our technology. From time to time, we, through our operating subsidiaries, may have to resort to litigation to enforce our intellectual property rights, which could result in substantial costs and diversion of our resources.

We, through our operating subsidiaries, have in the past entered, and may in the future continue to, enter into IP licensing agreements with third parties for the use of their proprietary technologies, primarily software development tools, in the development of our products. Third parties may initiate litigation against us alleging infringement of their proprietary rights or breach of a licensing agreement or declaring their non-infringement of our intellectual property rights. In the event of a successful claim of infringement or breach of a licensing agreement and our failure or inability to develop non-infringing technology or license the infringed or similar technology or cure the breach on a timely basis, our business could be harmed. Moreover, even if we are able to license the infringed or similar technology, license fees could be substantial and may adversely affect our results of operations.

Insurance

Our operating subsidiaries do not maintain business liability or interruption insurance, which, based on publicly available information available to us relating to IC design companies, is in line with customary industry practice. Any uninsured occurrence of business disruption, litigation or natural disaster, or significant damages to our uninsured equipment or facilities could have a material adverse effect on our results of operations.

Employees

As of December 31, 2024, we and our operating subsidiaries employed a total of 463 employees that are classified as follows:

Function	Number of Employees	Percentage of Total Number of Employees
Management	34	7.3 %
Sales and marketing	38	8.2 %
Research and development	263	56.8 %
Others	128	27.7 %
Total	463	100.0 %

We operate in a highly competitive and fast-growing industry in which recruiting and retaining talent is crucial to our continued growth and profitability. We compensate our employees based on historical contributions, potential for further contributions, as well as the market rate for qualified talent. We are committed to attracting and retaining top talent in the industry, and our emolument policy reflects that commitment. We offer various incentives to our employees including performance-based bonuses and share-based compensation. We also provide accidental insurance for the benefit of our employees. Pursuant to local regulations in each of the regions where we operate, we make contributions to various employee benefit plans. Employee benefits covered by these arrangements include employee benefits required by PRC laws and regulations as well as incentives for increasing production quantity, accommodations, meals and travel allowances. In Singapore, eligible employees are provided with Central Provident Fund (“CPF”) contributions that are paid into their CPF accounts in accordance with Singapore laws, and where applicable, are covered by mandatory workplace insurances. We believe that maintaining a stable and motivated workforce is critical to the success of our business. As a fast-growing company, we believe we are able to provide our employees with ample career development choices and advancement opportunities. We, through our operation subsidiaries, organize and launch various training programs on a regular basis for our employees. We believe that the current emolument policy has contributed to our ability to attract, incentivize and retain talents in such a competitive and fast- growing industry.

Properties

Our operating subsidiaries lease all real estate properties in connection with our business operations. They mainly include premises for our assembly plants, warehouses and offices. As of December 31, 2024, we and our operating subsidiaries occupied a total of 11 properties with an aggregate gross floor area of approximately 18,200 square meters.

Environmental Matters

Our operating subsidiaries are subject to environmental laws and regulations in the jurisdictions where they operate. These laws and regulations govern a broad range of environmental matters, including air pollution, noise emissions and water and waste discharge. We consider the protection of the environment to be important and have implemented measures in the operation of our business to ensure our compliance with all material applicable requirements under relevant environmental laws and regulations. Due to the nature of our operations, the waste we produce is not hazardous and has minimal impact on the environment.

The operations of our operating subsidiaries are subject to regulation and periodic monitoring by local environmental authorities. If we fail to comply with present or future laws and regulations, we could be subject to fines, suspension of production or cessation of operations.

Legal Proceedings

We and our subsidiaries are currently not a party to, and we are not aware of any threat of, any legal, arbitral or administrative proceedings, which, in our opinion, is likely to have a material and adverse effect on our business, financial conditions or results of operations. We may from time to time become a party to various legal, arbitral or administrative proceedings arising in the ordinary course of our business.

Regulations in Singapore

Singapore Laws and Regulations relating to Labor

The Singapore Employment Act 1968 (“**Singapore EA**”) sets out Singapore’s statutory minimum employee benefits. The Singapore EA provides that employers will need to provide a written employment agreement to employees containing all the key employment terms within 14 days of commencing employment. It further provides the for statutory minimum entitlements for annual leave, sick leave, public holidays, rest days and notice periods for termination of employment. The Singapore EA also covers the timing of payment of salaries in employment and also at the end of an employment relationship.

The Singapore Child Development Co-Savings Act 2001 (“**CDCA**”) sets out the family-related leaves that eligible employees are entitled to. The CDCA generally applies to employees who have a Singapore citizen child and provides for maternity leave, paternity leave, shared parental leave, adoption leave, childcare leave, extended childcare leave and unpaid infant care leave. Employees who are not eligible under the CDCA will have maternity leave and childcare leave benefits set forth in the Singapore EA.

Pursuant to the Central Provident Fund (“**CPF**”) Act 1953, employers are required to make CPF contributions in respect of employees who are Singapore citizens and Singapore permanent residents. Employers must pay these contributions to the CPF Board each month. The CPF contributions vary depending on the employee’s age and wages. The most common employer CPF contribution rate is 17% of the employee’s wages (currently subject to a monthly wage ceiling of S\$6,800) where the employee is 55 years old and below. The monthly wage ceiling is a cap on the employee’s wages that the employer will need to pay CPF contributions on and this is set to increase in 2025 to S\$7,400 from 1 January 2025 and to S\$8,000 from 1 January 2026, meaning that the employer CPF contributions will also increase accordingly.

Pursuant to the Work Injury Compensation Act 2019 (“**WICA**”), employers must maintain work injury compensation insurance in accordance with WICA for all manual workers regardless of earnings, and for non-manual workers with monthly earnings of S\$2,600 a month or less. Employers are exempt from maintaining the mandatory work injury insurance for non-manual workers who earn more than S\$2,600 each month. However, most employers maintain medical and hospitalization insurance, as employers remain liable under WICA to pay for medical expenses in relation to any personal injury by accident sustained by an employee in the course of employment. Additionally, the Workplace Safety and Health Act 2006 (“**WSHA**”) sets out the duties of employers with respect to workplace safety and health. Under WSHA, employers have a duty to take, so far as is reasonably practicable, such measures as are necessary to ensure the safety and health of the employer’s employees at work.

Regulations on bitcoin

Cryptocurrencies that exhibit the features of products regulated under Singapore law are not prohibited in Singapore, but the parties that carry on business activities in relation to such cryptocurrencies must ensure compliance with the applicable laws. This could impose significant restrictions on us or our customers with operations that are located in Singapore.

Cryptocurrencies can be regulated pursuant to the Payment Services Act 2019 (“**PSA**”) or pursuant to the Singapore’s Securities and Futures Act 2001 (“**SFA**”) if the characteristics and features of cryptocurrencies are sufficiently similar to those of capital markets products or securities as defined in the SFA.

Bitcoin may fall within the definition of a “digital payment token” (“**DPT**”) pursuant to the PSA, which is defined as any digital representation of value (other than an excluded digital representation of value) that is expressed as a unit, is not denominated in any currency, and is not pegged by its issuer to any currency, is, or is intended to be, a medium of exchange accepted by the public, or a section of the public, as payment for goods or services or for the discharge of a debt, can be transferred, stored or traded electronically, and satisfies such other characteristics as the Monetary Authority of Singapore may prescribe.

A DPT service may be a service of dealing in DPTs or a service of facilitating the exchange of DPTs:

- “Dealing in digital payment tokens” refers to the buying or selling of that DPT in exchange for any money or any other DPT other than facilitating the exchange of DPTs and accepting or using any DPT as a means of payment for the provision of goods or services.
- “Facilitating the exchange of digital payment tokens” means establishing or operating a digital payment token exchange, in a case where the person that establishes or operates that digital payment token exchange, for the purposes of an offer or invitation to buy or sell any digital payment token in exchange for any money or any digital payment token, comes into possession of any money or any digital payment token, whether at the time that offer or invitation is made or otherwise.

If a cryptocurrency constitutes a DPT under the PSA, and a party carries on a business of buying or selling it in exchange for money or another DPT, the party would be providing a DPT service of dealing in DPTs and would need to obtain a license under the PSA to do so in Singapore.

If a cryptocurrency is a security, securities-based derivatives contract or unit in a collective investment scheme pursuant to the SFA, if a person intends to offer it for sale, it would need to prepare and lodge a prospectus, unless the sale falls within an exemption under the SFA, such as a private placement or a small offer exemption. A private placement under the SFA requires, among other things, the offers to be made to no more than 50 persons within any period of 12 months. A small offer under the SFA requires, among other things, the total amount raised from the offers within any period of 12 months not to exceed SGD 5 million or its equivalent in a foreign currency. If a person intends to act as a broker for the sale or purchase of such a cryptocurrency, it would need to obtain a capital markets services license for dealing in capital markets products.

Regulations on sale of bitcoin mining equipment and spare parts

Certain of our offerings have or may in the future include wireless functionality. The Telecommunications Act 1999 and the Telecommunications (Dealers) Regulations regulates the import and sale of telecommunications equipment through a telecommunications dealers license. There are 2 types of telecommunications dealers license - a class license and an individual license. To import and sell products or parts with a wireless functionality, we will require a telecommunications dealers (individual) license. The license conditions applicable to holders of a telecommunications dealers (individual) license include: (a) meeting standards and specifications for the telecommunication equipment before the sale of such equipment; (b) affixing or ensuring that there is a label affixed on all registered equipment intended for use in Singapore or on the equipment’s instruction manual or packaging labels that complies with applicable standards and specifications; and (c) maintaining a record of every sale of any type of telecommunication equipment. It is an offence to sell telecommunication equipment without a license and a fine not exceeding SGD 10,000 and/or imprisonment for a term not exceeding 3 years may be imposed.

Regulations on advertising of bitcoin mining equipment and spare parts

The advertising codes set out by the Advertising Standards Authority of Singapore (“ASAS”), such as the Singapore Code of Advertising Practice, regulate advertising activities in Singapore. While these codes do not have the force of law, the ASAS is empowered to withhold advertising space, inform advertisers to amend / remove advertisements, or refer the matter to the Consumers Association of Singapore for recalcitrant advertisers who persistently provide false, misleading or unsubstantiated advertisements. Generally, all advertisements must be legal, decent, honest and truthful.

Regulations on product liability claims for bitcoin mining equipment and spare parts

Product liability claims may arise from the sale of the bitcoin mining equipment and spare parts e.g. from defects in our equipment and spare parts. These claims are governed under both legislation and common law in Singapore, including:

- the Sale of Goods (United Nations Convention) Act 1995 (“CISG”), which is the implementing statute in Singapore that adopts the United Nations Convention on Contracts for the International Sale of Goods. The CISG governs the formation of the contract of sale, the rights and obligations of the buyer and seller, and remedies available to the buyer and seller. For example, a seller is liable for any non-conforming goods if the lack of conformity exists at the time when the risk passes to the buyer. The CISG applies to agreements between any our Singapore subsidiaries and a counterparty where the places of business are in different contracting states.

- the Consumer Protection (Fair Trading) Act 2003, which sets out a legislative framework to allow consumers (defined as an individual, who otherwise than exclusively in the course of business – (a) receives or has the right to receive goods or services from a supplier; or (b) has a legal obligation to pay a supplier for goods or services that have been or are to be supplied to another individual) aggrieved by unfair practices to have recourse to civil remedies before the Singapore courts. Unfair practices include, among other things:
 - representing that goods are of a particular standard, quality, grade, style, model, origin, weight, volume, length, capacity or method of manufacture if they are not;
 - representing that goods have sponsorship, approval, performance characteristics, accessories, ingredients, components, qualities, uses or benefits that they do not have;
 - representing that a service, part, repair or replacement is needed or desirable if that is not so, or that a service has been supplied, a part has been installed, a repair has been made or a replacement has been provided, if that is not so.
- the Consumer Protection (Trade Descriptions and Safety Requirements) Act 1975 prohibits the use of false trade descriptions on goods supplied in the course of trade. Trade descriptions include any description, statement or indication that directly or indirectly relates to the fitness for purpose, strength, performance, behavior or accuracy of any goods. This prohibition applies to all persons in the course of business. Any violations are subject to criminal liability.

Regulations on international distribution of mining equipment and spare parts

The Regulation of Imports and Exports Act 1995 and the Regulation of Imports and Exports Regulations provides for the regulation, registration and control of imports and exports. All goods (whether controlled or uncontrolled) must not be imported into, exported out of or transshipped through Singapore without a permit, unless any of the following exceptions apply:

- the goods are not controlled imports, controlled exports or controlled transshipments and are:
 - personal or household effects, other than motor vehicles, which (i) accompany passengers, crew or employees of transport undertakings by land, sea or air; (ii) are not being transported for sale but are intended for the personal or household use of such passengers, crew or employees of transport undertakings; and (iii) in the case of such household effects, are being transported for the purpose of a transfer of residence of the owner to Singapore or to a place outside Singapore;
 - being imported, exported or transshipped by parcel post;
 - trade samples, specimens for analysis or test, and gifts, the total value of which does not exceed SGD 400;
- the goods are not controlled exports, have a total value which does not exceed SGD 1,000 and are being exported by air;
- the goods are not controlled transshipments, and which are not transshipped from one free trade zone to another; or are carried by air to and from Singapore during transshipment, and have a total value which does not exceed SGD 1,000.

Regulations on intellectual property

The Intellectual Property Office of Singapore (“**IPOS**”) administers the intellectual property legislative framework in Singapore, which includes copyrights, trademarks and patents. Singapore is a member of the main international conventions regulating intellectual property matters, and the World Trade Organization’s (“**WTO**”) Agreement on Trade Related Aspects of Intellectual Property Rights.

The Patents Act 1994 confers protection on patentable inventions on a first-to-file basis in Singapore, provided that the invention satisfies the requirements of novelty, having an inventive step and industrial applicability. Patents are valid for 20 years from the date of filing, subject to the payment of annual renewal fees. During the life of the patent, the owner will have the exclusive right to exploit the invention that is the subject of the patent.

Singapore operates a first-to-file system in respect of registered trademarks under the Trade Marks Act 1988. The registered proprietor is granted a statutory monopoly of the trademark in Singapore in relation to the product or service for which it is registered. In the event of any trademark infringement, the registered proprietor will be able to rely on the registered trademark as proof of his/her right to the mark, and the infringement of a trademark may give rise to civil and criminal liabilities. Statutory protection of a registered trademark can last indefinitely, as long as the registration is renewed every 10 years.

Pursuant to the Copyright Act 2021, authors of protected works enjoy various exclusive rights, including the rights of reproduction and communication to the public. Generally, an author will automatically enjoy copyright protection as soon as he creates and expresses an original work in a tangible form. Authors and performers also have a distinct right to be identified whenever their works or performances are used in public unless exceptions apply. For commissioned works, the copyright will be owned by the author by default, unless otherwise agreed by contract. On the other hand, employers by default own the copyright in all content created by their employees in the course of the employees' employment, unless otherwise agreed by contract. There is no need to file for registration to obtain copyright protection.

The law protecting the original layout-designs of an integrated circuits ("ICs") in Singapore is the Layout-Designs of Integrated Circuits Act 1999. An original layout-design is one which is both the result of the creator's own intellectual effort, and which is not commonplace among creators of layout-designs and manufacturers of ICs at the time of its creation. There is no need to file for registration or deposit of a layout-design with IPOS to obtain protection of a layout-design under the Layout-Designs of Integrated Circuits Act. Instead, a citizen or resident of Singapore, or a country which is a member of the WTO, or a country designated by the Singapore Government as a qualifying country, who owns a layout-design, can gain automatic protection for the layout-design if it qualifies for protection under Singapore law. The owner has the right to prevent the copying and commercial exploitation of an original layout-design of an IC. The owner can exercise his rights under the Layout-Designs of Integrated Circuits Act by taking legal action against the infringing party.

The Singapore Network Information Centre Pte Ltd ("SGNIC") is the appointed national registry responsible for authorising and regulating the registration, administration and management of domain name ending with the .SG Country Code Top Level Domain. Registration of domain names can be done with any of the registrars accredited by SGNIC.

Regulations on personal data protection

The Personal Data Protection Act 2012 ("PDPA") regulates the collection, use and disclosure of personal data by private sector organisations. Based on business operations of the Singapore subsidiaries, the PDPA will only apply to regulate the Singapore subsidiaries' relationships with its job applicants, employees, contractors and customers (insofar as personal data is involved in the purchase of the equipment and spare parts). The PDPA generally requires organizations to provide notifications and obtain consents prior to the collection, use and disclosure of personal data.

The Do-Not-Call requirements require organizations to check "Do-Not-Call" registries prior to sending marketing messages addressed to Singapore telephone numbers, through voice calls, fax or text messages, unless clear and unambiguous consent to such marketing was obtained from the individual. Directions, including financial penalties, may be imposed for any contravention of the PDPA.

Regulations on anti-money laundering and prevention of terrorism financing

The primary anti-money laundering legislation in Singapore is the Corruption, Drug Trafficking and Other Serious Crimes (Confiscation of Benefits) Act 1992 ("CDSA"), which provides for the confiscation of benefits derived from, and to combat, corruption, drug dealing and other serious crimes. Generally, the CDSA criminalizes the concealment or transfer of the benefits of criminal conduct as well as the knowing assistance of the concealment, transfer or retention of such benefits. The CDSA sets out an obligation to report transactions with the Suspicious Transaction Reporting Office, Commercial Affairs Department of the Singapore Police Force as soon as is reasonably practicable.

The Terrorism (Suppression of Financing) Act 2002 ("TSOFA"), the primary legislation for the combating of terrorism financing, was enacted to give effect to the International Convention for the Suppression of the Financing of Terrorism. Besides criminalizing the laundering of proceeds derived from drug dealing and other serious crimes and terrorism financing, the CDSA also requires suspicious transaction reports to be lodged with the Suspicious Transaction Reporting Office and the TSOFA requires information about any property belonging to any terrorist or terrorist entity to be reported to the Commissioner of Police.

Any person that fails to lodge the requisite reports under the CDSA and the TSOFA may be subject to criminal liability.

In addition, financial sanction requirements in relation to individuals and entities designated by the United Nations pursuant to the United Nations Act and applicable regulations such as the United Nations (Sanctions – Iran) Regulations 2019 must also be complied with.

Regulations on bitcoin mining

There is no legislation or prohibition directly applicable to bitcoin mining as an activity. However, profits arising from operations that mine cryptocurrencies in exchange for money are subject to income tax.

Regulations in the PRC

This section summarizes the principal current PRC laws and regulations relevant to the business and operations of our PRC subsidiaries.

This section sets forth a summary of the applicable PRC laws, rules, regulations, government and industry policies and requirements that have a significant impact on the operations and business of our PRC subsidiaries. This summary does not purport to be a complete description of all the laws and regulations, which apply to the business and operations of our PRC subsidiaries. Investors should note that the following summary is based on relevant laws and regulations in force as of the date of this annual report, which may be subject to change.

PRC Policies and Regulations relating to the IC Industries

Investments in the PRC conducted by foreign investors and foreign-owned enterprises shall comply with the Catalog of Industries for Encouraged Foreign Investment (2022 Edition) (《鼓励外商投资产业目录(2022修订)》), or the Foreign Investment Catalog, which was jointly promulgated by the Ministry of Commerce of the PRC, or MOFCOM, and the NDRC, on October 26, 2022 and became effective on January 1, 2023. The Foreign Investment Catalog contains specific provisions guiding market access of foreign capital, stipulating in detail different areas of entry, which include encouraged foreign-invested industries. Our business falls within the category of encouraged foreign-invested industries, according to catalogs 330, 331, 335, 336, 339 and 340 of encouraged foreign invested industries listed in the Foreign Investment Catalog.

Pursuant to the Provisions for Guiding the Foreign Investment Direction (《指导外商投资方向规定》), projects with foreign investment fall into 4 categories, namely encouraged, permitted, restricted and prohibited. Projects with foreign investment that are encouraged, restricted or prohibited shall be listed in the Foreign Investment Catalog. Projects with foreign investment not listed as encouraged, restricted or prohibited projects are permitted projects.

As demonstrated by the Circular of the State Council on Printing and Distributing Policies for Encouraging the Development of the Software Industry and the Integrated Circuit Industry (《国务院关于印发鼓励软件产业和集成电路产业发展若干政策的通知》) issued on June 24, 2000, the PRC continues to enact policies encouraging new and advanced technology and supporting the software and IC industries.

Pursuant to the Circular of the State Council on Printing and Distributing Policies for Further Encouraging the Development of the Software Industry and the Integrated Circuit Industry (《国务院关于印发进一步鼓励软件产业和集成电路产业发展若干政策的通知》) effective from January 28, 2011 and the Announcement of the State Administration of Taxation on Issues Concerning the Accreditation and the Administration for Software and Integrated Circuit Enterprises (《关于软件和集成电路企业认定管理有关问题的公告》) effective from May 30, 2012 (abolished on May 29, 2016), the following financial and tax policies were formulated:

- (i) Preferential value-added tax policies for software enterprises shall continue to be implemented;
- (ii) Relevant preferential business tax policies shall be further implemented and improved. Eligible software enterprises shall be exempt from business tax and relevant procedures applicable to them shall be simplified;
- (iii) Upon certification, corporate income tax, or EIT, shall be exempt or levied thereon at half of the statutory rate of 25%;

- (iv) Granting software and IC manufacturing enterprises more preferential policies on investment and financing in central budgets, policy- oriented financial institutions and commercial institutions;
- (v) Other preferential policies on intellectual properties, research and development human resources, input and output and marketing; and
- (vi) Key software industries falling within the State’s planned industries layout that are not eligible for preferential tax exemption in a given year will have enterprise income tax levied at the reduced rate of 10%.

As demonstrated by the Circular of the Ministry of Industry and Information Technology, the National Development and Reform Commission, the Ministry of Education, the Ministry of Finance, the Ministry of Human Resources and Social Security, the Ministry of Commerce, the State Taxation Administration, the State Administration for Market Regulation, the National Bureau of Statistics, the Chinese Academy of Engineering, the China Banking and Insurance Regulatory Commission, the China Securities Regulatory Commission and the China National Intellectual Property Administration on Issuing the Special Action Plan for Enhancing Design Capacity in the Manufacturing Industry (2019-2022) (《工业和信息化部、国家发展和改革委员会、教育部、财政部、人力资源和社会保障部、商务部、国家税务总局、国家市场监督管理总局、国家统计局、中国工程院、中国银行保险监督管理委员会、中国证券监督管理委员会、国家知识产权局关于印发制造业设计能力提升专项行动计划(2019-2022年)的通知》) issued on October 11, 2019, the integrated circuit design industry will be vigorously developed in the recent years as realizing the design upgrading of traditional advantageous industries.

Pursuant to the Circular of the State Council on Issuing Several Policies for Promoting the High-quality Development of the Integrated Circuit Industry and the Software Industry in the New Era (《国务院关于印发新时期促进集成电路产业和软件产业高质量发展若干政策的通知》) issued on July 27, 2020, the integrated circuit industry and software industry are considered as the core of information industry. The integrated circuit industry has received strong support from eight aspects such as finance and taxation, investment and financing, research and development, import and export, intellectual property rights and market application, etc.

PRC Policies and Regulations relating to the Bitcoin Industry

The policies and regulations relating to the Bitcoin industry do not have a direct impact on the Company. However, they could have an impact on the Company’s customers in the PRC, which could indirectly impact the demand for the Company’s Bitcoin mining machines.

According to the Circular of the People’s Bank of China, Ministry of Industry and Information Technology, China Banking Regulatory Commission, China Securities Regulatory Commission, and China Insurance Regulatory Commission on the Prevention of Risks from Bitcoin (《中国人民银行、工业和信息化部、中国银行业监督管理委员会、中国证券监督管理委员会、中国保险监督管理委员会关于防范比特币风险的通知》) jointly promulgated by People’s Bank of China, Ministry of Industry and Information Technology, China Banking Regulatory Commission, China Securities Regulatory Commission, or CSRC, and China Insurance Regulatory Commission on December 3, 2013, or the Circular, Bitcoin shall be a kind of virtual commodity in nature, which shall not be in the same legal status with currencies and shall not be circulated as currencies and used in markets as currencies. The Circular also provides that financial institutions and payment institutions shall not engage in business in connection with Bitcoin.

According to Announcement of the People’s Bank of China, the Cyberspace Administration of China, the Ministry of Industry and Information Technology, the State Administration for Industry and Commerce, the China Banking Regulatory Commission, the China Securities Regulatory Commission and the China Insurance Regulatory Commission on Preventing Initial Coin Offerings (ICO) Risks (《中国人民银行、中央网信办、工业和信息化部、工商总局、银监会、证监会、保监会关于防范代币发行融资风险的公告》) promulgated by seven PRC governmental authorities including the People’s Bank of China on September 4, 2017, or the Announcement, activities of offering and financing of tokens, including initial coin offerings, have been forbidden in the PRC since they may be suspected to be considered as illegal offering of securities or illegal fundraising. All so-called token trading platform should not (i) engage in the exchange between any statutory currency with tokens and “virtual currencies,” (ii) trade or trade the tokens or “virtual currencies” as central counterparties, or (iii) provide pricing, information agency or other services for tokens or “virtual currencies.” The Announcement further provides that financial institutions and payment institutions shall not engage in business in connection with transactions of offering and financing of tokens.

According to the Circular on Regulating Virtual Currency “Mining” Activities (《关于整治虚拟货币“挖矿”活动的通知》) jointly promulgated by the National Development and Reform Commission of the PRC, the Publicity Department of the CPC Central Committee, the Office of Cyberspace Affairs Commission of the CPC Central Committee, the Ministry of Industry and Information Technology, the Ministry of Public Security, the Ministry of Finance, the People’s Bank of China, the State Administration of Taxation, the State Administration for Market Regulation, the China Banking and Insurance Regulatory Commission and the National Energy Administration on September 3, 2021, the PRC government classifies the virtual currency mining activities as the eliminated industry.

According to the Circular on Further Preventing and Disposing of Virtual Currency Trading Speculation Risks (《关于进一步防范和处置虚拟货币交易炒作风险的通知》) jointly promulgated by the People’s Bank of China, the Office of Cyberspace Affairs Commission of the CPC Central Committee, the Supreme People’s Court, the Supreme People’s Procuratorate, the Ministry of Industry and Information Technology, the Ministry of Public Security, the State Administration for Market Regulation, the PRC Banking and Insurance Regulatory Commission, CSRC and the State Administration of Foreign Exchange on September 15, 2021, virtual currency-related business activities, such as exchange between legal tender currencies and virtual currencies, exchange between virtual currencies, trading virtual currencies as central counterparty, providing information intermediary and pricing services for virtual currency trading, token issuance and financing, and virtual currency derivatives trading are illegal financial activities and are strictly prohibited and resolutely banned. Virtual currency-related business activities of an overseas virtual currency exchange which provides services to PRC residents via the Internet are illegal financial activities.

On March 12, 2022, the National Development and Reform Commission of the PRC published the Market Access Negative List (2022 Edition) (《市场准入负面清单(2022年版)》), which lists the virtual currency mining activities as the “backward production processes and equipment” under the eliminated item in the Catalogue for Guiding Industrial Restructuring (《产业结构调整指导目录》). According to the List, market entities are prohibited from investing in eliminated items. The above regulations and policies may result in no customers in the PRC buying our products.

PRC Laws and Regulations relating to Intellectual Property Rights Trademark

The Trademark Law of the PRC (《中华人民共和国商标法》) was promulgated on August 23, 1982 with the last amendment effective from November 1, 2019. The Implementing Regulations of the Trademark Law of the PRC (《中华人民共和国商标法实施条例》) was promulgated on August 3, 2002 by the State Council and amended on April 29, 2014 and became effective on May 1, 2014. These current effective laws and regulations provide the basic legal framework for the regulations of trademarks in the PRC, covering registered trademarks including commodity trademarks, service trademarks, collective marks and certificate marks. The Trademark Office under the CNIPA is responsible for the registration and administration of trademarks in the PRC. Trademarks are granted on a term of 10 years commencing on its registration date. Twelve months prior to the expiration of the 10-year term, an application may renew the trademark for another 10 years.

Under the Trademark Law, any of the following acts may be regarded as an infringement of the exclusive right to use a registered trademark:

- Use of a trademark that is identical with or similar to a registered trademark on the same or similar kind of commodities without the authorization of the trademark registrant;
- Sale of commodities infringing upon the exclusive right to use a registered trademark;
- Counterfeiting or making, without authorization, representations of a registered trademark, or sale of such representation of a registered trademark; and
- Infringing upon other person’s exclusive right to use a registered trademark in other ways and causing damages.

Violation of the Trademark Law may result in imposition of fines, confiscation and destruction of infringing commodities.

Patent

Pursuant to the Patent Law of the PRC (《中华人民共和国专利法》), promulgated on March 12, 1984 with the last amendment effective from June 1, 2021, and the Detailed Implementing Rules of the Patent Law of the PRC (《中华人民共和国专利法实施细则》) promulgated on June 15, 2001 with the most recent amendment effective from January 20, 2024, respectively, an inventor or a designer may apply to China National Intellectual Property Administration, or the CNIPA for the grant of an invention patent, an utility model patent or a design patent. According to the Patent Law of the PRC, the right to apply for a patent (a patent application) and of registered patent can be transferred upon completion of registration with CNIPA. The patent right duration is 20 years for invention, 10 years for utility model and 15 years for design, starting from the date of application. A patentee is obligated to pay annual fee beginning with the year in which the patent right is granted. Failure to pay the annual fee may result in a termination of the patent right duration.

Copyright

The Copyright Law of the PRC (《中华人民共和国著作权法》), promulgated on September 7, 1990 with the last amendment promulgated on November 11, 2020 and to be effective on June 1, 2021, protects copyright and explicitly covers computer software copyright. The Regulations on the Computer Software Protection (《计算机软件保护条例》), promulgated on December 20, 2001 and amended on January 30, 2013 and came into force on March 1, 2013, protects the rights and interests of the computer software copyright holders and encourages the development of the software industry and information economy. In the PRC, software developed by PRC citizens, legal persons or other organizations are automatically protected immediately after its development, whether published or not. Foreigners or stateless persons having software first published within the territory of the PRC enjoy copyright in accordance with these regulations. Software owned by foreigners or stateless persons are protected in the PRC under these regulations according to an agreement signed between the country to which the foreigner belongs or the habitual residence of its developer and the PRC or according to the international conventions the PRC participated in. A software copyright owner may register with the software registration institution recognized by the copyright administration department of the State Council. A registration certificate issued by the software registration institution is a preliminary proof of the registered items. On February 20, 2002, the National Copyright Administration of the PRC promulgated the Measures for the Registration of Computer Software Copyright (《计算机软件著作权登记办法》), which came into force on the date of promulgation and was last amended on July 1, 2004 and outlines the operational procedures for registration of software copyright, as well as registration of software copyright licenses and transfer contracts. The copyright Protection Center of PRC is mandated as the software registration agency under the regulations.

Layout Designs of Integrated Circuits

The Regulations on the Protection of Layout-Designs of Integrated Circuits (《集成电路布图设计保护条例》) was promulgated by the State Council on April 2, 2001 and became effective on October 1, 2001, and the Detailed Implementing Rules of the Regulations on the Protection of Layout-Designs of Integrated Circuits (《集成电路布图设计保护条例实施细则》) were promulgated by CNIPA, the authority to receive and examine applications for registrations of layout IC designs, on September 18, 2001 and came into effect on October 1, 2001, or collectively the Layout-design Regulations.

Pursuant to the Layout-design Regulations, layout-design created by a PRC citizen, legal person or other organization shall be eligible for the exclusive right of layout-design in accordance with the Layout-design Regulations. The holder of the right of a layout design shall enjoy the following exclusive right:

- (1) Reproducing a protected layout-design in its entirety or any part thereof that complies with the requirement of originality; and
- (2) Commercially exploiting a protected layout-design, an IC incorporating a protected layout-design, or an article incorporating such an IC.

The exclusive right of a layout-design is acquired after it is registered with the intellectual property administration department of the State Council. Any unregistered layout-design shall not be protected under the Layout-design Regulations. The term of protection of the exclusive right of a layout-design shall be 10 years starting from the date of filing for registration or from the date on which it was first commercially exploited anywhere in the world, whichever expires earlier. However, no matter whether it has been registered or commercially exploited, a layout-design shall no longer be protected under the Layout-design Regulations 15 years after the date of the completion of its creation.

Any layout-design, if no application for its registration has been filled with the intellectual property administration department of the State Council within two years from the date on which it was first commercially exploited anywhere in the world, shall no longer be registered by the intellectual property administration department of the State Council.

The following acts, without the authorization of the holder of the right of a layout-design, would constitute an infringement of the layout-design:

- (1) reproducing a protected layout-design in its entirety or any part thereof that complies with the requirement of originality;
- (2) importing, selling, or otherwise distributing for commercial purposes a protected layout design, an IC incorporating such a layout-design, or an article incorporating such an IC.

The amount of compensation for the damage caused by an infringement of the exclusive right of a layout-design shall be the profits which the infringer has earned through the infringement or the losses suffered by the person whose right was infringed, including the reasonable expenses paid by the infringed person for the purposes of stopping the infringement.

Domain Name

Internet domain name registration and related matters are primarily regulated by the Administrative Measures on Internet Domain Names (《互联网域名管理办法》) issued by the Ministry of Industry and Information Technology (中华人民共和国工业和信息化部), or the MIIT, on August 24, 2017 which became effective on November 1, 2017, the Measures on Domain Name Disputes Resolution (《中国互联网络信息中心域名争议解决办法》) issued by China Internet Network Information Center (中国互联网络信息中心), or the CENIC, which became effective on June 28, 2012 (abolished on November 21, 2014), and the Announcement of Issuance and Implementation on the Detailed Implementing Rules of national TLD (《关于发布并实施<国家顶级域名注册实施细则>系列规定的公告》) issued by CENIC, which became effective on June 18, 2019. Domain name registrations are handled through domain name service agencies established under the relevant regulations, and the applicants become domain name holders upon successful registration. Domain name disputes shall be submitted to institutions authorized by the CENIC for resolution.

PRC Laws relating to Product Quality

The Product Quality Law of the PRC (《中华人民共和国产品质量法》) was promulgated on February 22, 1993 and amended on July 8, 2000, August 27, 2009 and December 29, 2018, respectively. The product quality supervision department under the State Council is responsible for nationwide product quality supervision. All the relevant departments under the State Council are in charge of product quality supervision according to their respective responsibilities. Local product quality supervision departments at or above the county level are responsible for product quality supervision within their own administrative areas.

Manufacturers and sellers shall establish and improve their internal product quality management systems and rigorously implement quality norms, quality responsibilities and corresponding measures for their assessment.

The PRC government encourages the use of scientific quality management methods and adoption of advanced science and technology, and encourages enterprises to ensure that their product quality reach or surpass trade standards, national standards and international standards. The entities and individuals that have made outstanding achievements in exercising advanced management of product quality and in bringing product quality up to the advanced international levels shall be awarded.

PRC Laws relating to Production Safety

The Work Safety Law of the PRC (《中华人民共和国安全生产法》) promulgated on June 29, 2002, with the latest amended version effective from September 1, 2021, is the principal law governing the supervision and administration of production safety in the PRC. Entities engaged in production and business activities within the territory of the PRC shall abide by the relevant legal requirements such as providing its staff with training on production safety and providing safe working environment in compliance with relevant laws and regulations. Any entities unable to provide the required safe working environment may not engage in production activities. Any failure to comply with the aforesaid provisions or to rectify noncompliance within a time limit may subject the relevant entities to fines and penalties, suspension of operations, ceasing of operations, or even criminal liability in severe situations.

PRC Laws and Regulations relating to Taxation

Enterprise Income Tax

According to the EIT Law, which was promulgated by the National People's Congress on March 16, 2007 with the latest amended version effective from December 29, 2018, and its implementing rules, a unified EIT rate of 25% is applied equally to both domestic enterprises and foreign invested enterprises, excluding non-resident enterprises. The EIT rate could be reduced to 15% for High-tech enterprises in need of special support from the PRC government.

Pursuant to the newly revised Administrative Measures for the Accreditation of High-tech Enterprises (《高新技术企业认定管理办法》), or the Administrative Measures, which became effective on January 1, 2016, High-tech enterprises, which are recognized in accordance with the Administrative Measures, may apply for the tax preferential policy in accordance with the EIT Law and the Implementing Measures thereof, the Law of the PRC on the Administration of Tax Collection (《中华人民共和国税收征收管理法》) and the Detailed Implementing Rules of the Law of the PRC on the Administration of Tax Collection (《中华人民共和国税收征收管理法实施细则》). The qualified high-tech enterprises would be taxed at a rate of 15% on EIT. The validity period of High-tech enterprises shall be three years from the date of issuance of the certificate of High-tech enterprise. After obtaining the High-tech enterprise qualification, such enterprise shall retain its financial statements together with details of its research and development activities and other technological innovation activities for future reference in accordance with the requirements of the tax authority and other relevant authorities. Where a significant change occurred such as change of name or other conditions related to the High-tech enterprises identified (e.g., separation, merger, restructuring and change of business), such enterprise shall report it to the relevant competent tax authority, which would accredit such enterprise within three months. Upon such accreditation, the High-tech enterprise would either remain its qualification or be disqualified. For enterprises undergoing a change of name, the authority would re-issue the certificate with the certificate number and duration of validity remains unchanged.

Pursuant to the Announcement of the State Administration of Taxation on Several Issues Concerning the Enterprise Income Taxes on the Indirect Transfer of Properties by Non-resident Enterprises (《关于非居民企业间接转让财产企业所得税若干问题的公告》) promulgated and with effect from February 3, 2015 and with last amendment on December 29, 2017, or Circular 7, and the Announcement of the State Administration of Taxation on Issues Concerning Withholding of Income Tax of Non-resident Enterprises at Source (《国家税务总局关于非居民企业所得税源泉扣缴有关问题的公告》) promulgated on October 17, 2017 with last amendment on June 15, 2018, or Circular 37, where a non-resident enterprise indirectly transfers equities and other properties of a PRC resident enterprise, or PRC Taxable Properties, to evade its obligation of paying EIT by implementing arrangements that are not for bona fide commercial purpose, such indirect transfer shall be re-identified and recognized as a direct transfer of equities and other properties of the PRC resident enterprise, in accordance with the provisions of Article 47 of the EIT Law. PRC Taxable Properties in this announcement include properties of a PRC entity or establishment located in the PRC, real estate in the PRC and an equity investment in a PRC resident enterprise, that are directly held by non-resident enterprises and proceed from such transfer shall be subject to EIT in the PRC in accordance with the PRC tax laws. An indirect transfer of PRC Taxable Properties refers to a transfer by a non-resident company of an equity interest or other similar right or interest in an overseas enterprise (excluding the PRC resident enterprise registered overseas), or the Overseas Enterprises, that in turn directly or indirectly holds the PRC Taxable Properties, which effectively has the same or a similar effect as a direct transfer of such PRC Taxable Properties. Circular 7 also provides that an indirect transfer of PRC Taxable Properties, which satisfies one of the following conditions, will not be subject to the aforesaid provisions:

- A non-resident enterprise buys and sells the shares of one same overseas listed company in a public stock exchange; and
- If the non-resident enterprise directly held and transferred PRC Taxable Properties, the proceeds derived thereof would be exempt from EIT under the applicable tax treaty or arrangement.

Value-added Tax

Pursuant to the Interim Regulations on Value-Added Tax of the PRC (《中华人民共和国增值税暂行条例》) promulgated by the Stated Council on December 13, 1993 with the latest amended version effective from November 19, 2017, and its implementing rules (《中华人民共和国增值税暂行条例实施细则》) promulgated by MOF on December 25, 1993 and revised on December 15, 2008 and October 28, 2011, respectively, tax payers engaging in sale of goods, provision of processing services, repairs and replacement services or importation of goods within the territory of the PRC shall pay value-added tax, or the VAT. Unless stated otherwise, the rate of value-added tax is 17%. Pursuant to the Circular of Value-added Tax Policies of Software Products (《关于软件产品增值税政策的通知》), a general taxpayer who sells its self-developed software products and borne a VAT more than 3%, could enjoy a levy-refund policy on VAT after being taxed at the fixed rate of 17%.

However, in practice, such general taxpayer should present the registration certificate for software products (软件产品登记证书) or registration certificate for software copyrights (计算机软件著作权登记证书) to prove the software products were developed and produced by its own.

In April 2018, MOF and SAT jointly promulgated the Circular of the Ministry of Finance and the State Administration of Taxation on Adjustment of Value-Added Tax Rates (《财政部、税务总局关于调整增值税税率的通知》), which came into effect on May 1, 2018, or Circular 32, according to which (i) for VAT taxable sales or imports of goods originally subject to value-added tax rates of 17% and 11% respectively, such tax rates were adjusted to 16% and 10%, respectively; and (ii) for exported goods originally subject to a tax rate of 17% and an export tax refund rate of 17%, the export tax refund rate was adjusted to 16%. Circular 32 became effective on May 1, 2018 and superseded existing provisions which were inconsistent with Circular 32.

Pursuant to the Announcement on Relevant Policies for Deepening Value-Added Tax Reform (《关于深化增值税改革有关政策的公告》), which was promulgated by MOF, State Administration of Taxation and the General Administration of Customs on March 20, 2019 and came into effect on April 1, 2019, where (i) for VAT taxable sales or imports of goods originally subject to value-added tax rates of 16%, such tax rates shall be adjusted to 13%; (ii) for the exported goods originally subject to a tax rate of 16% and an export tax refund rate of 16%, the export tax refund rate shall be adjusted to 13%.

PRC Laws and Regulations relating to Dividend Distribution

Under the Foreign Investment Law of the People's Republic of China (《中华人民共和国外商投资法》), which was promulgated by the National People's Congress of the PRC on March 15, 2019 and became effective on January 1, 2020, the organization form and structure and operating rules of foreign-funded enterprises are subject to the provisions of the Company Law of the People's Republic of China, the Partnership Enterprise Law of the People's Republic of China and other applicable laws. According to the Company Law of the People's Republic of China, foreign-invested enterprises in the PRC may pay dividends only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In addition, wholly foreign-owned enterprises in the PRC are also required to allocate at least 10% of their respective accumulated profits after tax each year, if any, to certain reserve funds unless these accumulated reserves have reached 50% of the registered capital of such enterprises. These reserves are not distributable as cash dividends.

According to the EIT Law and its implementing rules, dividends paid to investors of an eligible PRC resident enterprise can be exempted from EIT and dividends paid to foreign investors are subject to a withholding tax rate of 10%, unless relevant tax agreements entered into by the PRC government provide otherwise.

The PRC and the government of Hong Kong entered into the Arrangement between the Mainland of the PRC and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Incomes (《内地和香港特别行政区关于对所得避免双重征税和防止偷漏税的安排》), or the Arrangement, on August 21, 2006. According to the Arrangement, 5% withholding tax rate shall apply to the dividends paid by a PRC company to a Hong Kong resident, provided that such Hong Kong resident directly holds at least 25% of the equity interests in the PRC company, and 10% of withholding tax rate shall apply if the Hong Kong resident holds less than 25% of the equity interests in the PRC company.

Pursuant to the Circular on Relevant Issues Concerning the Implementation of Dividend Clauses in Tax Treaties (《关于执行税收协定股息条款有关问题的通知》), which was promulgated by the State Administration of Taxation, or SAT, and became effective on February 20, 2009, all of the following requirements shall be satisfied where a fiscal resident of the other party to a tax agreement needs to be entitled to such tax agreement treatment as being taxed at a tax rate specified in the tax agreement for the dividends paid to it by a PRC resident company: (i) such a fiscal resident who obtains dividends shall be a company as provided in the tax agreement; (ii) owner's equity interests and voting shares of the PRC resident company directly owned by such a fiscal resident reaches a specified percentage; and (iii) the equity interests of the PRC resident company directly owned by such a fiscal resident, at any time during the 12 months prior to obtaining the dividends, reach a percentage specified in the tax agreement.

According to the Tentative Administrative Measures on Tax Convention Treatment for Non-Residents (《非居民享受税收协定待遇管理办法(试行)》), which was promulgated by the SAT on August 24, 2009 and became effective on October 1, 2009, where a non-resident enterprise that receives dividends from a PRC resident enterprise wishes to enjoy the favorable tax benefits under the tax arrangements, it shall submit an application for approval to the competent tax authority. Without being approved, the non-resident enterprise may not enjoy the favorable tax treatment provided in the tax agreements.

However, the Tentative Administrative Measures on Tax Convention Treatment for Non-Residents (《非居民享受税收协定待遇管理办法(试行)》) has been repealed by the Administrative Measures on Tax Convention Treatment for Non-Resident Taxpayers (《非居民纳税人享受税收协定待遇管理办法》), which was promulgated by the SAT on August 27, 2015 and became effective on November 1, 2015 with last amendment on June 15, 2018, where a non-resident enterprise that receives dividends from a PRC resident enterprise, it could directly enjoy the favorable tax benefits under the tax arrangements at tax returns, and subject to the subsequent regulation of the competent tax authority.

Since January 1, 2020, the Administrative Measures on Tax Convention Treatment for Non-Resident Taxpayers (《非居民纳税人享受税收协定待遇管理办法》) has been replaced by the Announcement of the State Taxation Administration on Issuing the Administrative Measures for Entitlement to Treaty Benefits for Non-resident Taxpayers (《国家税务总局关于发布<非居民纳税人享受协定待遇管理办法>的公告》), which was promulgated on October 14, 2019, Entitlement to treaty benefits for non-resident taxpayers shall be handled by means of “self-judgment of eligibility, declaration of entitlement, and retention of relevant materials for future reference,” and non-resident taxpayers shall retain relevant information proving the status of “beneficial owner” in the case of entitlement to dividends clauses.

PRC Laws and Regulations relating to Labor

Pursuant to the PRC Labor Law (《中华人民共和国劳动法》) promulgated on July 5, 1994 and effective from January 1, 1995, and last revised on December 29, 2018, as well as the PRC Labor Contract Law (《中华人民共和国劳动合同法》) promulgated on June 29, 2007, revised on December 28, 2012 and effective from July 1, 2013, if an employment relationship is established between an entity and its employees, written labor contracts shall be executed between them. The relevant laws stipulate the maximum number of working hours per day and per week, respectively. Furthermore, the relevant laws also set forth the minimum wages. The entities shall establish and develop systems for occupational safety and sanitation, implement the rules and standards of the PRC government on occupational safety and sanitation, educate employees on occupational safety and sanitation, prevent accidents at work and reduce occupational hazards.

Pursuant to the Interim Regulations on Levying Social Insurance Premiums (《社会保险费征缴暂行条例》) promulgated on January 22, 1999 and revised on March 24, 2019, Decisions of the State Council on Modifying the Basic Endowment Insurance System for Enterprise Employees (《国务院关于完善企业职工基本养老保险制度的决定》) promulgated on December 3, 2005, the Decision of the State Council on Establishment of Basic Medical Insurance System for Urban Employee (《国务院关于建立城镇职工基本医疗保险制度的决定》) issued by State Council with effect from December 14, 1998, the Regulations on Unemployment Insurance (《失业保险条例》) effective from January 22, 1999, Regulations on Work-Related Injury Insurance (《工伤保险条例》) promulgated on April 27, 2003 with effect from January 1, 2004, and as amended on December 20, 2010 and effective from January 1, 2011, and the Interim Measures concerning the Maternity Insurance for Enterprise Employees (《企业职工生育保险试行办法》) promulgated on December 14, 1994 with effect from January 1, 1995, employers are required to register with the competent social insurance authorities and provide their employees with welfare schemes covering pension insurance, unemployment insurance, maternity insurance, work-related injury insurance and medical insurance.

Pursuant to the Social Insurance Law of the PRC (《中华人民共和国社会保险法》), which became effective on July 1, 2011 with last amendment on December 29, 2018, all employees are required to participate in basic pension insurance, basic medical insurance schemes and unemployment insurance, which must be contributed by both the employers and the employees. All employees are required to participate in work-related injury insurance and maternity insurance schemes, which must be contributed by the employers. Employers are required to complete registrations with local social insurance authorities. Moreover, the employers must timely make all social insurance contributions. Except for mandatory exceptions such as force majeure, social insurance premiums may not be paid late, reduced or be exempted. Where an employer fails to make social insurance contributions in full and on time, the social insurance contribution collection agencies shall order it to make all or outstanding contributions within a specified period and impose a late payment fee at the rate of 0.05% per day from the date on which the contribution becomes due. If such employer fails to make the overdue contributions within such time limit, the relevant administrative department may impose a fine equivalent to 1—3 times the overdue amount.

Pursuant to the Administrative Regulations on the Housing Provident Fund (《住房公积金管理条例》) effective from April 3, 1999, amended on March 24, 2002 and March 24, 2019, enterprises are required to register with the competent administrative centers of housing provident fund and open bank accounts for housing provident funds for their employees. Employers are also required to timely pay all housing fund contributions for their employees. Where an employer fails to submit and deposit registration of housing provident fund or fails to go through the formalities of opening housing provident fund accounts for its employees, the housing provident fund management center shall order it to go through the formalities within a prescribed time limit. Failing to do so at the expiration of the time limit will subject the employer to a fine of not less than RMB10,000 and up to RMB50,000. When an employer fails to pay housing provident fund due in full and in time, housing provident fund center is entitled to order it to rectify, failing to do so would result in enforcement exerted by the court.

PRC Laws and Regulations relating to Foreign Exchange

Foreign Exchange

Pursuant the Administrative Regulations of the PRC on Foreign Exchange (《中华人民共和国外汇管理条例》) promulgated by the State Council on January 29, 1996 and amended on August 5, 2008 with effect from August 5, 2008, and various regulations issued by the State Administration of Foreign Exchange (国家外汇管理局), or the SAFE, and other PRC regulatory agencies, foreign currency could be exchanged or paid through two different accounts, namely current account and capital account. Payment of current account items, including commodity, trade and service-related foreign exchange transactions and other current payment, may be made by conversion between Renminbi and foreign currencies without approval of the SAFE, but are subject to procedural requirements including presenting relevant documentary evidence of such transactions. Capital account items, such as direct equity investment, loans and repatriation of investment, require the prior approval from or registration with the SAFE or its local branch for conversion between Renminbi and the foreign currency, and remittance of the foreign currency outside the PRC.

SAFE Circular 59

On November 19, 2012, SAFE promulgated the Circular on Further Improving and Adjusting Foreign Exchange Administration Policies on Foreign Direct Investment (《国家外汇管理局关于进一步改进和调整直接投资外汇管理政策的通知》), or SAFE Circular 59, which became effective on December 17, 2012, with last amendment on December 30, 2019. SAFE Circular 59 substantially amends and simplifies the current foreign exchange procedure. According to SAFE Circular 59, the opening of various special purpose foreign exchange accounts (e.g. pre-investment expenses account, foreign exchange capital account, asset realization account, guarantee account) no longer requires SAFE's approval. Furthermore, multiple capital accounts for the same entity may be opened in different provinces, which was not possible before the issuance of SAFE Circular 59. Reinvestment of lawful incomes derived by foreign investors in the PRC (e.g. profit, proceeds of equity transfer, capital reduction, liquidation and early repatriation of investment) no longer requires SAFE's approval or verification, and purchase and remittance of foreign exchange as a result of capital reduction, liquidation, early repatriation or share transfer in a foreign-invested enterprise no longer requires SAFE's approval.

SAFE Circular 19

On March 30, 2015, SAFE promulgated the Circular on Reforming the Management Approach regarding the Settlement of Foreign Exchange Capital of Foreign-invested Enterprises (《国家外汇管理局关于改革外商投资企业外汇资本金结汇管理方式的通知》), or SAFE Circular 19, which came into effect on June 1, 2015 with its last amendment on March 23, 2023. According to SAFE Circular 19, the foreign exchange capital of foreign-invested enterprises, or the FIE, shall be subject to a discretionary foreign exchange settlement, or the Discretional Foreign Exchange Settlement. The Discretional Foreign Exchange Settlement refers to the foreign exchange capital in the capital account of an FIE for which the rights and interests of monetary contribution has been confirmed by the local foreign exchange bureau (or the book-entry registration of monetary contribution by the banks) and can be settled at the banks based on the actual operational needs of the FIE. The proportion of Discretional Foreign Exchange Settlement of the foreign exchange capital of an FIE is temporarily determined as 100%. Renminbi converted from a foreign exchange capital will be kept in a designated account and if an FIE needs to make further payment from such account, it still needs to provide supporting documents and go through the review process with the banks.

Furthermore, SAFE Circular 19 stipulates that the use of capital by foreign-invested enterprises shall follow the principles of authenticity and self-use within the business scope of enterprises. The capital of an FIE and capital in Renminbi obtained by the FIE from foreign exchange settlement shall not be used for the following purposes:

- (1) directly or indirectly used for the payment beyond the business scope of the enterprises or the payment prohibited by relevant laws and regulations;
- (2) directly or indirectly used for investment in securities unless otherwise provided by relevant laws and regulations;
- (3) directly or indirectly used for granting the entrust loans in Renminbi (unless permitted by the scope of business), repaying the inter- enterprise borrowings (including advances by the third party) or repaying the bank loans in Renminbi that have been sub- lent to the third party; and
- (4) paying the expenses related to the purchase of real estate that is not for self-use (except for the foreign-invested real estate enterprises).

SAFE Circular 37

On July 4, 2014, the Circular of the State Administration of Foreign Exchange on Issues Concerning Foreign Exchange Administration over the Overseas Investment and Financing and Round-trip Investment by Domestic Residents via Special Purpose Vehicles (《国家外汇管理局关于境内居民通过特殊目的公司境外投融资及返程投资外汇管理有关问题的通知》), or SAFE Circular 37, became effective on July 4, 2014. Pursuant to SAFE Circular 37, SAFE and its branches shall enforce registration management for establishment of a special purpose vehicle, or SPV, by domestic residents (including domestic institutions and domestic resident individuals, and domestic resident individuals shall refer to PRC citizens holding the identity cards for PRC domestic residents, military identity certificates or identity certificates for armed police force, and overseas individuals that do not hold any domestic legitimate identity certificates but have habitual residences within the territory of the PRC due to relationships of economic interests). Prior to contributing domestic and overseas legitimate assets or interests to an SPV, a domestic resident shall apply to SAFE for foreign exchange registration of overseas investment. Where a registered overseas SPV undergoes changes of its domestic resident individual shareholders, name, operating period or other basic information, or experiences substantial changes including without limitation the increase or reduction of registered capital by domestic resident individuals, transfer or replacement of equity and merger or split, the SPV shall go through modification registration of foreign exchange for overseas investment with SAFE. Where a non-listed SPV uses its own equity interests or options to grant equity incentives to the directors, supervisors and senior management of a domestic enterprise under its direct or indirect control, as well as other employees in employment or labor relationships with the aforesaid company, relevant domestic resident individuals may, before exercising their rights, apply to SAFE for foreign exchange registration of the SPV.

SAFE Circular 13

Pursuant to the Circular on Further Simplifying and Improving the Direct Investment-related Foreign Exchange Administration Policies (《关于进一步简化和改进直接投资外汇管理政策的通知》), or SAFE Circular 13, which was promulgated by SAFE on February 13, 2015 and became effective on June 1, 2015, with its last amendment on December 30, 2019, the foreign exchange registration under domestic direct investment and the foreign exchange registration under overseas direct investment will be directly reviewed and handled by banks in accordance with SAFE Circular 13, and SAFE and its branches shall perform indirect regulation over the foreign exchange registration via banks.

SAFE Circular 7

Pursuant to the Circular of the State Administration of Foreign Exchange on the Relevant Issues Concerning the Administration of Foreign Exchange for Domestic Individuals' Participation in Equity Incentive Programs of Overseas Listed Companies (《国家外汇管理局关于境内个人参与境外上市公司股权激励计划外汇管理有关问题的通知》), all individuals who participate in the same equity incentive program of an overseas listed company shall, through their domestic company, collectively entrust one domestic agency to solely handle the relevant matters for them including registration of foreign exchange, opening of the account and transfer and conversion of funds, and one overseas agency shall solely handle such matters including individuals' exercise of rights, the purchase and sale of relevant stocks or equities and transfer of relevant funds.

Regulations in the United States

The following sets forth a description of certain laws, regulations and government policies relating to cryptocurrencies and cryptocurrency mining in the United States, which we consider a key market for our overseas business.

We are not aware of any law that currently makes it *per se* illegal for a natural person or entity simply to possess, sell, or trade Bitcoin on its own behalf in connection with lawful transactions in the United States, provided that any transaction complies generally with applicable law. Nonetheless, in the United States, both the federal government and individual states have regulations in place that govern the offer, sale, and transmission of various types of cryptocurrency, including but not limited to Bitcoin, and the legal status of Bitcoin and other cryptocurrencies continues to evolve.

The United States Commodity Futures Trading Commission, or CFTC, has taken the position that crypto currencies, such as Bitcoin, are "commodities" covered by the Commodity Exchange Act and subject to regulation by the CFTC. In March 2018, a United States federal court affirmed the CFTC's authority to regulate cryptocurrencies. This means that the CFTC has jurisdiction over any futures, options or derivatives contracts involving cryptocurrencies as well as any fraud or manipulation involving cryptocurrencies in the spot market. Our Bitcoin mining machines are not intended to be used either for any futures, options or derivatives trading or to enable fraud or manipulation. However, to the extent that any mining activity using our products were to be deemed a form of fraud or manipulation, or our products were otherwise used for fraud or manipulation, we could potentially be subject to regulatory or private actions related to those uses.

In addition, while the SEC has taken the position that Bitcoin, Ether, and certain cryptocurrencies subject to significant operational restrictions are not “securities” regulated by the federal securities laws, it is likely that the SEC will view almost all other cryptocurrencies other than Bitcoin and Ether that can be mined to be “securities,” based on their status as “investment contracts” under the guidance provided by the SEC “Framework for ‘Investment Contract’ Analysis of Digital Assets,” and the application of the test under *SEC v. W. J. Howey Co.* (the “*Howey test*”) to cryptocurrencies. It is similarly likely that these other cryptocurrencies will be treated as securities under the laws of the individual states.

The status of additional cryptocurrencies as securities could impose significant restrictions on us or our customers with operations that are located in the United States or involve United States residents. Typically, offerings and distributions of securities in the United States are required to register with the SEC under the Securities Act and, in compliance with state law, with applicable state regulators. If the offering of a cryptocurrency that can be mined using our Bitcoin mining machines is deemed a security, miners may be required to cease mining that cryptocurrency, which would negatively affect our business. In addition, if our company were viewed as facilitating an illegal distribution of a cryptocurrency, our company could be subject to liability associated with its product sales. Further, even if a cryptocurrency that is considered to be a security is legally distributed under the US securities laws, the miners of that cryptocurrency could be viewed as statutory underwriters or as “brokers” subject to regulation under the Exchange Act because they are effecting transactions in those securities for a fee (i.e., mining rewards). This outcome would again potentially reduce the viability of our product sales and could also subject us to liability. Any of these developments could limit the future development of our business. See “Item 3. Key Information—D. Risk Factors—Risks Relating to Our Business and Industry—We are subject to risks associated with legal, political or other conditions or developments regarding holding, using or mining of Bitcoins, which could negatively affect our business, results of operations and financial position.”

Further, the Department of the Treasury’s Financial Crimes Enforcement Network, or FinCEN, regulates “money transmitters,” including certain administrators and exchangers of cryptocurrencies, and state laws also regulate money transmission; more generally, cryptocurrency transactions may implicate a variety of federal and state laws designed to counter money laundering. In January 2023, the House of Representatives announced its first ever Financial Services Subcommittee on Digital Assets and its intention to develop a regulatory framework for the digital asset industry. In February 2023, Bipartisan leadership of the Senate Banking Committee announced a similar goal. In January 2025, the SEC launched a crypto task force, led by Commissioner Hester Peirce, dedicated to developing a comprehensive and clear regulatory framework for crypto assets. Additionally, on February 20, 2025, the SEC announced the creation of the Cyber and Emerging Technologies Unit, which consists of approximately 30 fraud specialists and attorneys, focusing on combating cyber-related misconduct and protecting retail investors from bad actors in the emerging technologies space.

Cryptocurrency mining remains largely unregulated at the federal and state levels. In January 2024, the SEC approved a series of spot Bitcoin exchange-traded funds (ETFs), which have since attracted substantial investment. In February 2024, the U.S. Energy Information Administration (EIA) initiated a six-month survey to collect data on electricity usage within the cryptocurrency mining sector. The stated aim was to assess geographic growth trends and energy sourcing. Following a lawsuit, the U.S. Department of Energy suspended the survey and ordered destruction of previously collected data. Although the EIA indicated in July 2024 that it intended to restart the survey, no formal restart has occurred as of the date of this filing. In January 2025, President Donald Trump issued an executive order establishing a presidential working group focused on regulatory clarity for digital assets, and on March 6, 2025, he signed an executive order establishing a Strategic Bitcoin Reserve and a U.S. Digital Asset Stockpile. Legislative bodies in both chambers of Congress have also announced a bipartisan working group with the stated objective of drafting comprehensive legislation to regulate digital assets, and multiple hearings have been held on the subject of fair access to financial services for digital asset companies.

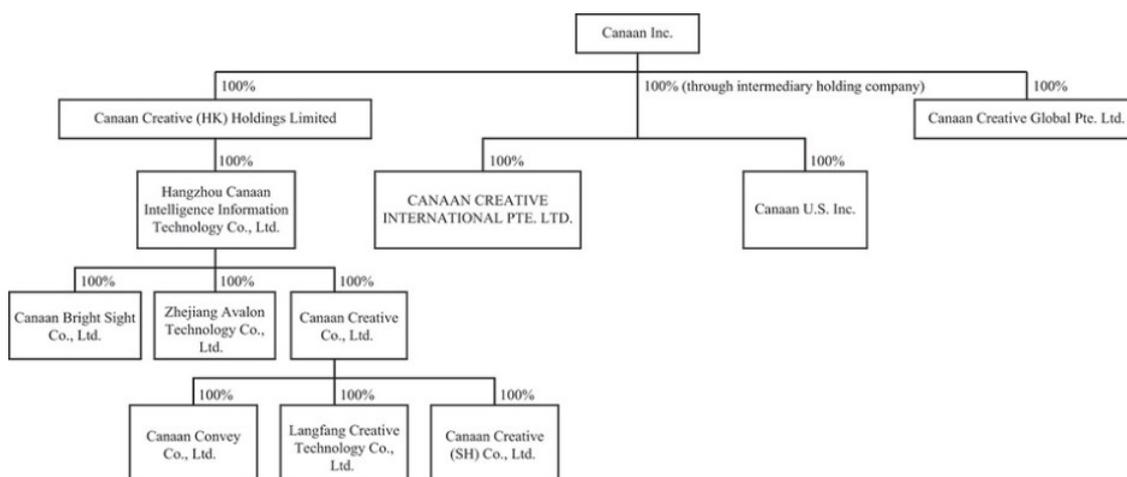
C. Organizational Structure

We are a holding company incorporated in Cayman Islands and do not have substantive operations. Like many large scale, multinational companies with businesses around the world, we conduct our business through a number of subsidiaries across the world, as we expand through organic growth and/or acquisitions and consolidations of new businesses.

The following is a list of our principal subsidiaries as of the date of this annual report on Form 20-F, and their respective date of incorporation, jurisdictions of incorporation, principal activities and the ownership interest we hold:

Name of principal subsidiaries	Place of incorporation	Equity interest held	Principal activities
Canaan Creative Global Pte. Ltd.	Singapore	100 %	International headquarters, research and development of ICs, international distribution of mining equipment and spare parts
Canaan Creative (HK) Holdings Limited	Hong Kong Special Administrative Region	100 %	Research and development of ICs
Hangzhou Canaan Intelligence Information Technology Co., Ltd.	Hangzhou, China	100 %	Research and development of ICs
Canaan Creative Co., Ltd.	Beijing, China	100 %	Research and development of ICs
Langfang Creative Technology Co., Ltd.	Langfang, China	100 %	Assembly of mining equipment and spare parts
Canaan Convey Co., Ltd.	Beijing, China	100 %	International distribution of mining equipment and spare parts
Zhejiang Avalon Technology Co., Ltd.	Hangzhou, China	100 %	Distribution of mining equipment and spare parts
Canaan Bright Sight Co., Ltd.	Beijing, China	100 %	International distribution of edge computing chip products
Canaan Creative (SH) Co., Ltd.	Shanghai, China	100 %	Research and development of ICs
Canaan U.S. Inc.	United States	100 %	International distribution of mining equipment and spare parts, mining business
Canaan Creative International PTE. Ltd.	Singapore	100 %	Mining business

The following diagram illustrates our corporate structure, including our principal subsidiaries described above, as of the date of this annual report on Form 20-F:



D. Property, Plants and Equipment

Please refer to “B. Business Overview—Properties” for a discussion of our property, plants and equipment.

ITEM 4A. UNRESOLVED STAFF COMMENTS

Not applicable.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

Unless otherwise stated, the discussion and analysis of our financial condition and results of operation in this section apply to our financial information as prepared according to U.S. GAAP. You should read the following discussion and analysis of our financial condition and operating results in conjunction with our consolidated financial statements and the related notes included elsewhere in this annual report. The following discussion contains forward-looking statements based upon current expectations that involve risks and uncertainties. Our actual results and the timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under “Item 3. Key Information—D. Risk Factors.”

A. Operating Results Overview

We provide high-performance computing solutions through our proprietary ASICs. We have strong ASIC chip design capability underpinned by over ten years of industry experience and the expertise of our founders and management team. We are one of the few fabless IC design companies with the advanced technology to independently design ASIC, established access to leading wafer foundry capacity and proven in-house capability to produce Bitcoin mining machines. We primarily dedicated technology and expertise in ASIC applications to Bitcoin mining machines and are a leading producer of Bitcoin mining machines in the global market. In addition, with our technology expertise and know-how in ASIC chip design, our operating subsidiaries have delivered Risc-V architecture-based edge computing chips applicable to smart digital devices. We believe our extensive experience and expertise in ASIC applications position us well in our future endeavors.

Leveraging our deep understanding of the cryptocurrency industry and strong technology as applied to ASIC chip design, we intend to capture the growth opportunity along the value chain of the cryptocurrency industry to enhance our offerings and achieve more stable financial performance. We have started with the Bitcoin mining business through our strategic collaboration with certain cryptocurrency mining farms and aim to develop the Bitcoin mining business as the second engine to capitalize on the Bitcoin ecosystem and synergize with our bitcoin mining machines sales. We endeavor to grow our deployed computing power for mining and improve the energized hash rate to enhance our mining business. For the year ended December 31, 2022, 2023 and 2024, we generated revenue of US\$32.5 million, US\$34.0 million and US\$44.0 million from the Bitcoin mining business, respectively.

Starting from January 1, 2023, we changed our reporting currency from Renminbi to U.S. dollar. The aligning of the reporting currency with the underlying operations will better reflect our business development of recent years and future global strategy. Assets and liabilities of entities with functional currencies other than US\$ are translated into US\$ using the exchange rate on the balance sheet date. Revenues and expenses of entities with functional currencies other than US\$ are translated into US\$ at average rates prevailing during the reporting period. Prior periods' financial information has been recast as if we always used US\$ as our reporting currency.

We have developed competitive advantages in our business and technological capabilities, including the following:

- Our expertise in the development, designing and production of Bitcoin mining machines;
- Our mastery of the whole IC design process;
- Our years of accumulated engineering experience in applying theoretical research to the mass production of new products;
- Our ability to achieve a fast time-to-market with our products and our successful early monetization of the ASIC design in blockchain applications have provided us with an early advantage with respect to both technology and capital reserve to pursue our strategic initiatives;
- Our breakthroughs in various technological fields to improve ASIC performance, such as low voltage and high power efficiency operations and high computing density, all of which are crucial features for ASICs for blockchain and edge computing solutions;
- Our ownership of most of the intellectual property we employ, and our accumulation of valuable know-how and multiple generations of proprietary silicon data through our long-term ASIC design experience;
- Our long-term partnerships with leading global suppliers, which have enabled us to achieve high-quality, high yield rate and stable production;
- Our penetration into the Bitcoin mining business by leveraging our experience in Bitcoin mining machines production and sales; and
- Our ability to provide customized solutions to our customers, including tailored mining solutions, edge computing chips, algorithm development and optimization, hardware module, end-product and software services.

Key Factors Affecting Our Results of Operations

Our results of operations have been, and are expected to continue to be, affected by a number of factors, which primarily include the following:

- expected economic returns on Bitcoin mining activities, in particular, fluctuation of the Bitcoin price;
- acceptance and development of blockchain technology applications, especially Bitcoin;
- development of edge computing technologies;
- the performance and cost of our products;
- production capacity;
- investment in research and development; and
- the regulatory environment.

Expected economic returns on Bitcoin mining activities, in particular, the fluctuations of Bitcoin price

Our revenues are primarily derived from the sales of Bitcoin mining machines and related parts and accessories, which are, in general, determined by the demand and pricing of our Bitcoin mining machines. Bitcoin miners' purchasing behavior are primarily driven by the expected economic returns of Bitcoin mining. In addition, we also generate a portion of our revenues from our Bitcoin mining business, which is also primarily driven by the expected economic returns of Bitcoin mining. An increase in the Bitcoin price is a significant factor that could increase the expected economic returns generated by Bitcoin mining activities and stimulate the demand and average selling price for our Bitcoin mining machines, and vice versa. Bitcoin price fluctuated significantly in the past few years and resulted in corresponding fluctuations of our sale of Bitcoin mining machines. We expect our results of operations to continue to be affected by the fluctuations of Bitcoin price, as a significant portion of our revenue is expected to come from the sales of Bitcoin mining machines and related parts and accessories and a portion of our revenues is expected to come from our Bitcoin mining business. Any future significant reductions in the price of Bitcoin will likely have a material and adverse effect on our results of operations and financial condition.

In addition to the volatility of Bitcoin price, various other factors, mostly beyond our control, could impact the expected economic returns of Bitcoin mining as well, including, among others, increase in the Bitcoin's total network hash rate, transaction fees, increase in electricity costs or other operating costs, increase in computing power and efficiency of mining machines, and a variety of special economic, geopolitical and regulatory factors.

Additionally, a complex effect of demand-supply dynamics, which is significantly impacted by the fluctuations in Bitcoin price, may affect the value of inventories as well as the provision we make to the inventory as we manage our inventories based on, among others, the sales and pricing forecast of our Bitcoin mining machines. As we generally increase our procurement volume and stock up finished goods for the launch of new products or we expect a surge of demand for Bitcoin mining machines with increasing average computing power price, a significant drop in the Bitcoin price can lead to a lower expected sales price and excessive inventories, which in turn will lead to impairment losses with respect to such inventories. For example, as the Bitcoin price has fluctuated from 2023 to 2024, we continued to experience low demand and low prices in the Bitcoin mining machine market. As a result, we recorded inventories write-down, prepayment write-down and provision for inventory purchase commitments of US\$190.2 million and US\$100.6 million in 2023 and 2024, respectively. If the Bitcoin price drops significantly in the future, we may make similar write-down again. To the extent we are able to sell such inventories above their carrying value, our gross profit may also be inflated by such write-down.

Acceptance and Development of Blockchain Technology Applications, Especially Bitcoin

Our current blockchain application is designed for Bitcoin mining. Our revenues derived from sales of Bitcoin mining machines and related parts and accessories were US\$617.5 million in 2022, US\$175.9 million in 2023 and US\$222.3 million in 2024, respectively. For the years ended December 31, 2022, 2023 and 2024, we generated revenue of US\$32.5 million, US\$34.0 million and US\$44.0 million from the Bitcoin mining business, respectively. Any adverse development in blockchain technology and the cryptocurrency markets, and in the Bitcoin market in particular, can significantly impact our results of operations. The Bitcoin market can also be affected by the following factors, among others: (i) different views regarding the decentralized nature of cryptocurrencies, (ii) acceptance of cryptocurrencies as an investment instrument as well as a currency for payment, (iii) competing cryptocurrencies to Bitcoin, and (iv) changes in the Bitcoin algorithm and the mechanism of mining.

Performance and Cost of Our Products

The pricing of and demand for our Bitcoin mining machines and our edge computing chips are closely related to their performance. In general, more advanced process technologies can accommodate designs that produce ASICs with higher power efficiency. The introduction of new process and design technologies also enables us to gradually lower the production costs of ASICs with comparable computing power. However, the application of such process technologies also commands high initial setup costs, particularly when the new production techniques first become available, which translates to higher per unit costs. As a result, our new generation ASICs using the most advanced process technologies will need to achieve strong sales in order to justify the initial setup costs of the new production techniques and maintain our profitability. At the same time, as the most advanced production capabilities of IC foundries ramp up, the initial high unit cost for IC fabrication may also decrease, which will likely translate to lower fabrication costs and a positive effect on our business, results of operations and financial condition.

Production Capacity

As a fabless IC design company, we outsource the fabrication process of our ICs to third-party foundry partners, and we outsource the testing and packaging process to third-party testing and packaging partners. We work closely with a limited number of such production partners. For example, in 2024, we mainly relied on one third-party foundry partner for our Bitcoin mining machine business, and we cannot guarantee that it will be able to meet our manufacturing requirements or capacity or that it will not raise its prices. In addition, our final test yield is a function of both product design, which is developed by us, and process technology of our third-party foundry partners. If any of our third-party foundry partners experiences manufacturing inefficiencies or encounters disruptions, errors or difficulties during production, we may fail to achieve acceptable final test yields or experience product delivery delays. See “Item 3. Key Information-D. Risk Factors-Risks Relating to Our Business and Industry- Failure at tape-out or failure to achieve the expected final test yields for our ASICs could negatively impact our operating results.” As a result, our ability to quickly respond to market demand and meet production timelines, as well as to price our products competitively, is highly dependent on our third-party production partners. If our production partners are unable to meet our production capacity requirements or deliver products that meet our quality standards on a timely basis, our results of operations will be adversely affected.

We may also incur significant cash outflow at the early stages of our production process because we are required to make prepayments to some of our third-party production partners to secure their production capacity beforehand, which may affect our liquidity position. In addition, any failure by our third-party production partners to perform their obligations in a timely manner may subject us to counterparty risk and make it difficult or impossible for us to fulfill our customers’ orders, which would harm our reputation and negatively affect our business, results of operations and financial condition.

Investment in Research and Development

We are a fabless IC design company. Our ability to design high quality ASICs largely depends on our continued investment in research and development, and our results of operations are affected by related expenses. Historically, we have invested substantially in research and development to build and enhance our competitive edge, and we need to continue to devote resources to research and development activities in order to (i) design and develop new or enhanced ASICs for Bitcoin mining applications, (ii) design and develop new or enhanced ASICs for edge computing applications, and (iii) expand our product offering and penetrate into new application markets, particularly into markets for ASIC applications that require high performance and strong computing power. We cannot assure you that we can continue to have a high successful tape-out rate. Unsuccessful tape-outs will significantly increase our research and development expenses. Our ability to design and develop new or enhanced ASICs for Bitcoin mining and edge computing applications and ASICs for other applications with market potential as well as maintain a high tape-out rate will have a material effect on our business, results of operations, financial condition and profitability.

Regulatory Environment

Historically, a significant portion of our Bitcoin mining machines were sold to customers located in China. Because of the adverse changes in the regulatory environment in the PRC, we have expanded into global markets and our revenues generated from sales to customers outside China, such as customers in North America, West Asia, Southeast Asia, Europe and Africa, represented 69.7% of our total revenues generated from sales of Bitcoin mining machines and related parts and accessories in 2024. As such, we need to ensure that we are compliant with the existing and future laws and regulations relating to our business in the various jurisdictions that are material to our business and operations. See “Item 3. Key Information-D. Risk Factors-Risks Relating to Our Business and Industry-We are subject to risks associated with legal, political or other conditions or developments regarding holding, using or mining of Bitcoins, which could negatively affect our business, results of operations and financial position.”

If a government in any jurisdiction changes its policy or regulations to prevent or limit the development of Bitcoin or cryptocurrencies generally, the price of Bitcoin and the demand for our mining machines as well as the future development of other cryptocurrency related business would decrease or fail, and our business operations and financial results could be adversely affected. Therefore, our ability to comply with government policies and regulations, and to anticipate and respond to potential changes in government policies and regulations will have a significant impact on our business operations and our overall results of operations.

Development of Edge Computing Technology

In addition to our Bitcoin mining machines, we have also developed ASICs for edge computing applications and have continued to make investments in the area. Revenues derived from the sale of our edge computing chip products was US\$1.4 million in 2022, US\$1.0 million in 2023 and US\$0.9 million in 2024. The development of edge computing technology and the acceptance of ASICs for smart device applications is meaningful to our success in related product offering.

Key Components of Results of Operations

Revenue

We derive our revenue primarily from sales of Bitcoin mining machines.

The following table sets forth a breakdown of our revenue by services, each expressed in the absolute amount and as a percentage of our total revenue, for the periods indicated:

	Year ended December 31,					
	2022		2023		2024	
	US\$	%	US\$	%	US\$	%
Products revenue	618.9	95.0	176.9	83.6	223.2	82.9
Bitcoin mining machines ⁽¹⁾	617.5	94.8	175.9	83.1	222.3	82.6
Edge computing chip products	1.4	0.2	1.0	0.5	0.9	0.3
Mining revenue	32.5	5.0	34.0	16.1	44.0	16.3
Other revenues	0.1	0.0	0.6	0.3	2.1	0.8
Total	651.5	100.0	211.5	100.0	269.3	100.0

Notes:

- (1) Our bitcoin mining machines products revenue is primarily attributable to sales of Bitcoin mining machines, with the remainder consisting of Bitcoin mining related parts and accessories.

Our revenue is primarily affected by the total computing power sold and their average selling price. The average selling price of our Bitcoin mining machines changes from period to period and is primarily affected by the supply and demand of Bitcoin mining machines, Bitcoin price and expected economic returns on Bitcoin mining activities, and the performance of the mining machines. The Bitcoin price and expected economic returns on Bitcoin mining activities could significantly affect the demand of mining machines and in turn the average selling price of Bitcoin mining machines. See “-Key Factors Affecting Our Results of Operations” for details of factors affecting economic return on Bitcoin mining activities and the market demands. Particularly, a significant fluctuation in Bitcoin price in a short period of time could significantly reverse the trend of average selling price of Bitcoin mining machines in certain periods of time. For example, a significant drop in the Bitcoin price in the fourth quarter of 2022 reduced the average selling price of Bitcoin mining machines in the same periods. This is typically the case of our A13 series products which were released just before the Bitcoin price drop and, despite its much stronger computing power, had a lower average selling price as compared with our A12 series products in 2022. The following table sets forth the total computing power sold and average selling prices of our Bitcoin mining machines expressed in terms of computing power for the periods indicated:

	Year ended December 31,								
	2022			2023			2024		
	Revenue US\$ in millions	Total Computing Power Sold Thash/s	ASP per Thash US\$	Revenue US\$ in millions	Total Computing Power Sold Thash/s	ASP per Thash US\$	Revenue US\$ in millions	Total Computing Power Sold Thash/s	ASP per Thash US\$
A12 series ⁽¹⁾	616.0	15,102,553	40.8	65.0	9,395,024	6.9	6.6	2,150,639	3.1
A13 series ⁽²⁾	0.1	6,201	17.3	108.7	10,191,183	10.7	49.7	9,055,356	5.5
A14 series ⁽³⁾	—	—	—	—	—	—	108.6	10,769,013	10.1
A15 series ⁽⁴⁾	—	—	—	—	—	—	47.3	3,911,913	12.1
Total	616.1	15,108,754	40.8	173.7	19,586,207	8.9	212.2	25,886,921	8.2

Notes:

- (1) Mainly includes our A1246 and A1266 Bitcoin mining machines.
- (2) Mainly includes our A1326 and A1346 Bitcoin mining machines.
- (3) Mainly includes our A1446 and A1466 Bitcoin mining machines.
- (4) Mainly includes our A1566 Bitcoin mining machines.

Cost of revenues

Our cost of revenues consists of product costs, including costs of raw materials, costs of contractual manufacturers for production, labor costs, shipping and handling costs, manufacturing and tooling equipment depreciation, warehousing costs as well as inventories write-down, prepayment write-down and provision for inventory purchase commitments and tax surcharges. The following table sets forth a breakdown of our cost of revenues, expressed as an absolute amount and as a percentage of our total cost of revenues, for the years indicated.

	Year ended December 31,					
	2022		2023		2024	
	US\$	%	US\$	%	US\$	%
	(in millions, except for percentages)					
Product cost	366.5	87.0	368.1	81.4	301.3	85.2
Product cost excluding the impact of write-down	278.7	66.2	305.1	67.4	369.8	104.6
Inventories write-down, prepayment write-down and provision for inventory purchase commitments	93.6	22.2	190.2	42.1	100.6	28.5
Transfer of inventories write-down and prepayment write-down	(5.8)	(1.4)	(127.2)	(28.1)	(169.1)	(47.8)
Mining cost	54.5	12.9	81.8	18.1	51.5	14.6
Direct cost of mining	23.6	5.6	28.4	6.3	29.0	8.2
Depreciation	30.9	7.3	53.4	11.8	22.5	6.4
Other cost	0.2	0.0	2.4	0.5	0.8	0.2
Total cost of revenues	421.2	100.0	452.3	100.0	353.6	100.0

Historically, the relative weight of the components of our product cost remained relatively stable without taking into consideration the inventories write-down, prepayment write-down and provision for inventory purchase commitments. As we employ a fables model, costs of contract manufacturing and raw materials is the largest component of our product cost. Going forward, as we continue our fables model, we do not expect any major changes to the relative weight of the components of product cost without taking into consideration the inventories write-down, prepayment write-down and provision for inventory purchase commitments.

We make inventories write-down, prepayment write-down and provision for inventory purchase commitments when we determine that we are unlikely to sell our inventory at or above their cost. The amount to be written down is the difference between the cost of our inventory and the estimated realizable value of our inventory, which is significantly affected by the Bitcoin price and changes of market demands. For example, as the Bitcoin price has fluctuated from 2023 to 2024, we continued to experience reduced demand and prices in the Bitcoin mining machine market. As a result, we recorded inventories write-down, prepayment write-down and provisions for inventory purchase commitments of US\$190.2 million and US\$100.6 million in 2023 and 2024, respectively. Going forward, if we are able to sell such inventories above their cost, the cost of sales for those machines will be net of such write-down, which in turn will have the effect of increasing our gross profit for the period.

The following table sets out the average selling cost of our Bitcoin mining machines, excluding the transfer of inventories write-down, expressed in terms of computing power:

	Year ended December 31,					
	2022		2023		2024	
	Total Computing Power Sold Thash/s	Selling Cost per Thash US\$	Total Computing Power Sold Thash/s	Selling Cost per Thash US\$	Total Computing Power Sold Thash/s	Selling Cost per Thash US\$
A12 series ⁽¹⁾	15,102,553	14	9,395,024	18	2,150,639	18
A13 series ⁽²⁾	6,201	12	10,191,183	15	9,055,356	14
A14 series ⁽³⁾	—	—	—	—	10,769,013	11
A15 series ⁽⁴⁾	—	—	—	—	3,911,913	12
Total	15,108,754	14	19,586,207	16	25,886,921	13

Notes:

- (1) Mainly includes our A1246 and A1266 Bitcoin mining machines.
- (2) Mainly includes our A1326 and A1346 Bitcoin mining machines.
- (3) Mainly includes our A1446 and A1466 Bitcoin mining machines.
- (4) Mainly includes our A1566 Bitcoin mining machines.

In general, we tend to incur higher production costs per Thash for our Bitcoin mining machines using newly implemented process technologies early in their life cycle due to the initial set up costs. We were also able to optimize our design as a same generation of processing technology matures, which can lead to a lower per Thash cost for newer products. The number of ASICs installed in each unit of our Bitcoin mining machines also affects the per unit production costs for our Bitcoin mining machines. The cost of other parts and accessories can also affect our production costs.

Gross profit (loss) and gross profit (loss) margin

Our gross profit (loss) and gross profit (loss) margin are primarily affected by Bitcoin prices, which have a significant effect on the average selling price of our products, and, to a lesser extent, the average per unit production costs of our Bitcoin mining machines. In 2022, our gross profit was US\$230.3 million. In 2023 and 2024, our gross loss was US\$240.8 million and US\$84.3 million, respectively. As the Bitcoin price dropped again in the second half of 2022, we experienced a decrease in demand and average selling price of our Bitcoin mining machines, thereby leading to lower Bitcoin mining machines revenue in 2023. As the Bitcoin price has fluctuated from 2023 to 2024, we continued to experience low demand and low prices in the Bitcoin mining machine market and therefore recorded gross loss. Additionally, we recorded an inventories write-down, prepayment write-down and provision for inventory purchase commitments of US\$190.2 million in 2023 and US\$100.6 million in 2024, respectively.

Operating expenses

Our operating expenses include research and development expenses, sales and marketing expenses and general and administrative expenses. The following table sets forth components of our operating expenses, both in absolute amount and as a percentage of our total revenue, for the periods presented:

	Year ended December 31,					
	2022		2023		2024	
	US\$	%	US\$	%	US\$	%
Research and development expenses	81.8	12.5	64.9	30.7	61.3	22.8
-Share-based compensation expense included in research and development expenses	10.2	1.6	9.1	4.3	7.3	2.7
Sales and marketing expenses	9.4	1.4	8.2	3.9	5.7	2.1
-Share-based compensation expense included in sales and marketing expenses	2.5	0.4	0.2	0.1	0.2	0.1
General and administrative expenses	88.3	13.7	71.2	33.6	71.7	26.6
-Share-based compensation expense included in general and administrative expenses	50.1	7.7	32.5	15.4	23.2	8.6
Impairment on property, equipment and software	—	—	21.1	10.0	11.3	4.2
Impairment on cryptocurrency	7.9	1.2	4.7	2.2	—	—
Gain on disposal of property, equipment and software	—	—	—	—	7.2	(2.7)
Total	187.4	28.8	170.1	80.4	142.8	53.0

Research and development expenses. Research and development expenses primarily consist of salary and welfare for research and development personnel (including share-based compensation), consulting and contractor expenses, testing and tooling materials and other expenses associated with research and development. Substantially all of our research and development expenses are related to developing new products and services and improving existing products and services.

Sales and marketing expenses. Sales and marketing expenses consist primarily of salary and welfare for sales and marketing personnel (including share-based compensation), promotion and marketing expenses and other expenses associated with sales and marketing.

General and administrative expenses. General and administrative expenses consist primarily of salary and welfare for general and administrative personnel (including share-based compensation), rental expenses and depreciation, allowance for doubtful receivables, general office expense and professional service fees.

Impairment on property, equipment and software. We review property, equipment and software for impairment whenever events or changes indicate that the carrying amount of an asset may not be recoverable. Recoverability of property, equipment and software is measured by a comparison of the carrying amount of the property, equipment and software to undiscounted future cash flows expected to be generated by the asset. If such property, equipment and software is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds its fair value.

Impairment on cryptocurrency. Impairment on cryptocurrency to be recognized is measured by the amount by which the carrying amount of cryptocurrencies exceeds the fair value of the cryptocurrencies. The recoverable amount of cryptocurrencies is based on the fair value less costs of disposal. The fair value of the cryptocurrencies is determined by using the quoted price on the cryptocurrencies platform website well recognized by the block chain users. As a result of adopting ASU 2023-08 from January 1, 2024, the Company measures cryptocurrency at fair value as of each reporting period in accordance with ASC 820, Fair Value Measurement.

Gain on disposal of property, equipment and software. Gain on disposal of property, equipment and software is the difference between the net sales proceeds and the carrying amount of the relevant assets.

Taxation

Cayman Islands

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duties which may be applicable to instruments executed in, or after execution, brought within the jurisdiction of the Cayman Islands. In addition, the Cayman Islands does not impose withholding tax on dividend payments.

Hong Kong, Singapore and United States

Our subsidiary incorporated in Hong Kong is subject to Hong Kong profit tax at a rate of 8.25% for profit of up to HK\$2.0 million and 16.5% for the remainder. Our subsidiaries in Singapore and United States are subject to income tax rates of 17.0% and 21.0%, respectively. No Hong Kong, Singapore and United States profit or income tax has been levied as we did not have an assessable profit that was earned in or derived from the Hong Kong, Singapore and United States subsidiaries during the periods presented. Dividends income received from PRC subsidiaries are not subject to Hong Kong, Singapore and United States profits or income tax.

PRC

In March 2007, the National People's Congress of China enacted the Enterprise Income Tax Law, which became effective on January 1, 2008 and last amended on December 29, 2018. The Enterprise Income Tax Law provides that enterprises organized under the laws of jurisdictions outside China with their "de facto management bodies" located within China may be considered PRC resident enterprises and therefore subject to the PRC EIT at the rate of 25% on their worldwide income. The Implementing Rules of the Enterprise Income Tax Law further define the term "de facto management body" as the management body that exercises substantial and overall management and control over the business, personnel, accounts and properties of an enterprise.

While we do not currently consider our company or any of our overseas subsidiaries to be a PRC resident enterprise, there is a risk that the PRC tax authorities may deem our company or any of our overseas subsidiaries to be a PRC resident enterprise since a substantial majority of the members of our management team as well as the management team of some of our overseas subsidiaries are located in China, in which case we or the applicable overseas subsidiaries, as the case may be, would be subject to the PRC EIT at the rate of 25% on worldwide income. If the PRC tax authorities determine that our Cayman Islands holding company is a "resident enterprise" for PRC EIT purposes, a number of unfavorable PRC tax consequences could follow.

Under the Enterprise Income Tax Law and its implementation regulations issued by the State Council, a 10% PRC withholding tax is applicable to dividends paid to investors that are nonresident enterprises, which do not have an establishment or place of business in the PRC or which have such establishment or place of business but the dividends are not effectively connected with such establishment or place of business, to the extent such dividends are derived from sources within the PRC. As of December 31, 2024, the aggregated amount of accumulated deficits of our entities located in the PRC were US\$77,054. We plan to indefinitely reinvested undistributed earnings earned from such subsidiaries in their operations in the PRC. Therefore, no withholding income tax for undistributed earnings of such subsidiaries were provided as of December 31, 2024.

In addition, any gain realized on the transfer of shares by such investors is also subject to PRC tax at a rate of 10%, if such gain is regarded as income derived from sources within the PRC. If we are deemed to be a PRC resident enterprise, dividends paid on our ordinary shares or ADSs, and any gain realized from the transfer of our ordinary shares or ADSs, may be treated as income derived from sources within the PRC and may as a result be subject to PRC taxation.

Furthermore, if we are deemed to be a PRC resident enterprise, dividends paid to individual investors who are non-PRC residents and any gain realized on the transfer of ADSs or ordinary shares by such investors may be subject to PRC tax at a current rate of 20% (which in the case of dividends may be withheld at source). Any PRC tax liability may be reduced under applicable tax treaties or tax arrangements between China and other jurisdictions. If we or any of our subsidiaries established outside China are considered to be a PRC resident enterprise, it is unclear whether holders of the ADSs or ordinary shares would be able to claim the benefit of income tax treaties or agreements entered into between China and other countries or areas.

In April 2018, the Ministry of Finance, or MOF, and State Administration of Taxation, or SAT, jointly promulgated the Circular of the MOF and the SAT on Adjustment of Value-Added Tax Rates, or Circular 32, according to which (i) for VAT taxable sales or imports of goods originally subject to VAT rates of 17% and 11% respectively, such tax rates were adjusted to 16% and 10%, respectively; and (ii) for exported goods originally subject to a tax rate of 17% and an export tax refund rate of 17%, the export tax refund rate was adjusted to 16%. Circular 32 became effective on May 1, 2018 and superseded existing provisions which were inconsistent with Circular 32.

Pursuant to the Announcement on Relevant Policies for Deepening Value-Added Tax Reform, which was promulgated by MOF, SAT and the General Administration of Customs on March 20, 2019, where (i) for VAT taxable sales or imports of goods originally subject to VAT rates of 16%, such tax rates shall be adjusted to 13%; (ii) for exported goods originally subject to a tax rate of 16% and an export tax refund rate of 16%, the export tax refund rate shall be adjusted to 13%.

We are also subject to VAT at a rate of approximately 6% on the services and solutions we provide to our customers, less any deductible VAT we have already paid or borne. We are also subject to surcharges on VAT payments in accordance with PRC law.

Recent Accounting Pronouncements

A list of recently issued accounting pronouncements that are relevant to us is included in “Notes to the Consolidated Financial Statements—2. Summary of Significant Accounting Policies” of our audited consolidated financial statements included elsewhere in this annual report.

Results of Operations

The following table sets forth a summary of our consolidated results of operations for the periods indicated. This information should be read together with our consolidated financial statements and related notes included elsewhere in this annual report. The operating results in any period are not necessarily indicative of the results that may be expected for any future period.

	Year ended December 31		
	2022	2023	2024
	US\$	US\$	US\$
		(in millions)	
Revenues:			
Products revenue	618.9	176.9	223.2
Mining revenue	32.5	34.0	44.0
Other revenues	0.1	0.6	2.1
Total revenues	651.5	211.5	269.3
Products cost	(366.5)	(368.1)	(301.3)
Mining cost	(54.5)	(81.8)	(51.5)
Other cost	(0.2)	(2.4)	(0.8)
Cost of revenues	(421.2)	(452.3)	(353.6)
Gross profit (loss)	230.3	(240.8)	(84.3)
Operating expenses:			
Research and development expenses	(81.8)	(64.9)	(61.3)
Sales and marketing expenses	(9.4)	(8.2)	(5.7)
General and administrative expenses	(88.3)	(71.2)	(71.7)
Impairment on property, equipment and software	—	(21.1)	(11.3)
Impairment on cryptocurrency	(7.9)	(4.7)	—
Gain on disposal of property, equipment and software	—	—	7.2
Total operating expenses	(187.4)	(170.1)	(142.8)
Income (loss) from operations:	42.9	(410.9)	(227.1)
Interest income	2.4	1.0	0.5
Interest expense	—	—	(0.5)
Change in fair value of cryptocurrency	—	—	42.4
Change in fair value of financial instruments other than derivatives	3.8	(10.9)	20.6
Change in fair value of financial derivatives	—	—	17.6
Excess of fair value of Convertible Preferred Shares	—	(59.2)	(50.7)
Foreign exchange gains, net	35.9	12.3	14.1
Other income, net	3.3	2.2	10.8
Income (loss) before income tax expense	88.3	(465.5)	(172.3)
Income tax (expense) benefit	(18.4)	51.3	(77.5)
Net income (loss)	69.9	(414.2)	(249.8)
Foreign currency translation adjustment, net of nil tax	(36.3)	(6.9)	(13.5)
Total comprehensive income(loss)	33.6	(421.1)	(263.3)

Year Ended December 31, 2024 Compared to Year Ended December 31, 2023

Revenue. Our revenue increased by 27.3% to US\$269.3 million in 2024 from US\$211.5 million in 2023, primarily due to the increase in total computing power sold from 19.6 million Thash in 2023 to 26.0 million Thash in 2024.

Cost of revenues. Our cost of revenues decreased by 21.8% to US\$353.6 million in 2024 from US\$452.3 million in 2023, primarily due to the decrease in inventories write-down, prepayment write-down and provision for inventory purchase commitments from US\$190.2 million in 2023 to US\$100.6 million in 2024.

Gross loss. As a result of the foregoing, we recorded a gross loss of US\$84.3 million in 2024, compared to a gross loss of US\$240.8 million in 2023.

Operating expenses. Our total operating expenses decreased by 16.0% to US\$142.8 million in 2024 from US\$170.1 million in 2023.

Research and development expenses. Our research and development expenses decreased by 5.5% to US\$61.3 million in 2024 from US\$64.9 million in 2023. The decrease was primarily due to a decrease of US\$4.9 million in staff costs and a decrease of US\$1.8 million in share-based compensation, partially offset by an increase of US\$3.0 million in development expenses associated with the new products. As a result of the foregoing, as well as an increase of our revenue, our research and development expenses as a percentage of our revenues decreased from 30.7% in 2023 to 22.8% in 2024.

Selling and marketing expenses. Our selling and marketing expenses decreased by 30.5% to US\$5.7 million in 2024 from US\$8.2 million in 2023. The decrease was mainly driven by a decrease of US\$3.0 million in staff costs. As a result of the foregoing, as well as an increase of our revenue, our selling and marketing expenses as a percentage of our revenues thereby decreased from 3.9% in 2023 to 2.1% in 2024.

General and administrative expenses. Our general and administrative expenses increased by 0.7% to US\$71.7 million in 2024 from US\$71.2 million in 2023. The increase was primarily due to a decrease of US\$9.4 million in the gain from sale of cryptocurrency and an increase of US\$3.0 million in professional service fees, partially offset by a decrease of US\$9.4 million in share-based compensation due to the declined share incentive grants and fully vested restricted share units, as well as a decrease of US\$3.5 million in staff costs. As a result of the foregoing, as well as an increase of our revenue, our general and administrative expenses as a percentage of our revenues decreased from 33.6% in 2023 to 26.6% in 2024.

Impairment on property, equipment and software. Our impairment on property, equipment and software decreased to US\$11.3 million in 2024 from US\$21.1 million in 2023, due to the decreased amount by which the carrying value exceeded the fair value of the mining equipment.

Impairment on cryptocurrency. Our impairment on cryptocurrency was nil in 2024, compared to US\$4.7 million in 2023, due to the adoption of ASU 2023-08.

Gain on disposal of property, equipment and software. Our gain on disposal of property, equipment and software increased to US\$7.2 million in 2024 from nil million in 2023, due to the increased disposal of self-used mining machines.

Interest income. Our interest income decreased by 50.0% to US\$0.5 million in 2024 from US\$1.0 million in 2023, primarily due to a decrease of deposit principal and a reduction of interest rate.

Interest expense. Our interest expense increased to US\$0.5 million in 2024 from nil in 2023, primarily due to an increase of secured term loans.

Change in fair value of cryptocurrency and Change in fair value of financial derivative. Our change in fair value of cryptocurrency and change in fair value of financial derivative increased to US\$42.4 million and US\$17.6 million in 2024 from nil in 2023, respectively. As a result of the adoption of ASU 2023-08, our cryptocurrency are measured initially and subsequently at fair value in accordance with ASC 820, Fair Value Measurement. Changes in fair value of our cryptocurrency are recorded in change in fair value of cryptocurrency, and changes in fair value of our cryptocurrency receivables are recorded in change in fair value of financial derivative. As of December 31, 2024, we held cryptocurrency assets with a fair value of US\$61.8 million and cryptocurrency receivables with an aggregate fair value of US\$69.6 million. Cryptocurrency assets primarily consist of 562.3 bitcoins owned by us and 79.3 bitcoins received as customer deposits. Cryptocurrency receivables consist of 600 bitcoins pledged for secured term loans, 100.3 bitcoins transferred to a fixed term product, and 30 bitcoins prepaid for professional services.

Change in fair value of financial instruments other than derivatives. Our change in fair value of financial instruments other than derivatives incurred a gain of US\$20.6 million in 2024, compared to a loss of US\$10.9 million in 2023, due to a fair value change in the preferred shares financing issued in 2024.

Excess of fair value of Convertible Preferred Shares. Our excess of fair value of Convertible Preferred Shares incurred US\$50.7 million in 2024, compared to 59.2 million in 2023, due to the fair value of the preferred shares financing exceeding the proceeds.

Foreign exchange gain. Our foreign exchange gain increased by 14.6% to US\$14.1 million in 2024 from US\$12.3 million in 2023, as a result of the impact of currency fluctuation on our non-US\$ denominated assets and liabilities.

Other income, net. Our other income, net was US\$10.8 million in 2024, compared to US\$2.2 million in 2023, due to a release of payment obligation.

Loss before income tax expense. We recorded a loss before income tax expenses of US\$172.3 million in 2024, while we recorded a loss before income tax expenses of US\$465.5 million in 2023.

Income tax expense (benefit). Our income tax expense was US\$77.5 million in 2024, compared to income tax benefits of US\$51.3 million in 2023. The income tax expense in 2024 was mainly due to the valuation allowance provided for certain tax loss carry-forwards of US\$78.4 million.

Net loss. As a result of the foregoing, we recorded a net loss of US\$249.8 million in 2024, compared to a net loss of US\$414.2 million in 2023.

Foreign currency translation adjustment, net of nil tax. We recorded US\$13.5 million and US\$6.9 million of negative foreign currency translation adjustment, net of nil tax in 2024 and 2023, respectively, primarily due to the fluctuation of exchange rates.

Year Ended December 31, 2023 Compared to Year Ended December 31, 2022

Revenue. Our revenue decreased by 67.5% to US\$211.5 million in 2023 from US\$651.5 million in 2022, primarily due to a decrease in the average selling price of our Bitcoin mining machines on a per Thash basis from US\$40.8 per Thash in 2022 to US\$8.9 per Thash in 2023, which in turn was the result of the soft demand and price drop in computing power in 2023.

Cost of revenues. Our cost of revenues increased by 7.4% to US\$452.3 million in 2023 from US\$421.2 million in 2022. Such increase was the result of the fact that (i) we recorded US\$190.2 million for inventories write-down, prepayment write-down and provision for inventory purchase commitments which increased the cost of revenues in 2023 as well as (ii) the depreciation of mining machines increased from US\$30.9 million in 2022 to US\$53.4 million in 2023 due to our growing mining machine fleet for the mining business in the full year of 2023.

Gross profit (loss). As a result of the foregoing, we recorded a gross loss of US\$240.8 million in 2023, compared to a gross profit of US\$230.3 million in 2022.

Operating expenses. Our total operating expenses decreased by 9.2% to US\$170.1 million in 2023 from US\$187.4 million in 2022.

Research and development expenses. Our research and development expenses decreased by 20.7% to US\$64.9 million in 2023 from US\$81.8 million in 2022. The decrease was primarily due to reduction in development expenses associated with the new products in 2023. Due to a decrease in our revenue, our research and development expenses as a percentage of our revenues increased from 12.5% in 2022 to 30.7% in 2023.

Selling and marketing expenses. Our selling and marketing expenses decreased by 12.8% to US\$8.2 million in 2023 from US\$9.4 million in 2022. The decrease was mainly driven by a decrease of US\$2.3 million in share-based compensation, partially offset by an increase of US\$0.6 million in promotion expenses and an increase of US\$0.4 million in staff costs. Due to a decrease in our revenue, our selling and marketing expenses as a percentage of our revenues thereby increased from 1.4% in 2022 to 3.9% in 2023.

General and administrative expenses. Our general and administrative expenses decreased by 19.4% to US\$71.2 million in 2023 from US\$88.3 million in 2022. The decrease was primarily due to a decrease of US\$17.6 million in share-based compensation due to the declined share incentive grants and fully vested restricted share units and an increase of US\$8.3 million in disposal gain of cryptocurrency, partially offset by an increase of US\$8.5 million in staff costs due to one-off expenditure for organization optimization and an increase of US\$1.1 million in office expense due to our global business expansion. Due to a decrease in our revenue, our general and administrative expenses as a percentage of our revenues increased from 13.7% in 2022 to 34.6% in 2023.

Impairment on property, equipment and software. Our impairment on property, equipment and software increased to US\$21.1 million in 2023 from nil in 2022, due to the carrying value exceeding the fair value of the mining equipment.

Impairment on cryptocurrency. Our impairment on cryptocurrency decreased to US\$4.7 million in 2023 from US\$7.9 million in 2022, due to the Bitcoin price recovery since the second half of 2023. As of December 31, 2023, we held 1,078.5 bitcoins consisted of 909.2 bitcoins owned by us and 169.3 bitcoins received as customer deposits, with the fair value of US\$42.4 thousands.

Interest income. Our interest income decreased by 58.3% to US\$1.0 million in 2023 from US\$2.4 million in 2022, primarily due to a decrease of deposit principal and a reduction of interest rate.

Change in fair value of financial instruments other than derivatives. Our change in fair value of financial instruments other than derivatives incurred a loss of US\$10.9 million in 2023, compared to a gain of US\$3.8 million in 2022, due to a fair value change in the preferred shares financing issued in 2023.

Excess of fair value of Convertible Preferred Shares. Our excess of fair value of Convertible Preferred Shares incurred US\$59.2 million in 2023, compared to nil in 2022, due to the fair value of the preferred shares financing exceeding the proceeds.

Foreign exchange gain. Our foreign exchange gain decreased by 65.7% to US\$12.3 million in 2023 from US\$35.9 million in 2022, as a result of the impact of currency fluctuation on our non-US\$ denominated assets and liabilities.

Other income, net. Our net other income was US\$2.2 million in 2023 and US\$3.3 million in 2022, both of which were primarily from government grants.

Income (loss) before income tax expense. We recorded a loss before income tax expenses of US\$465.5 million in 2023, while we recorded an income before income tax expenses of US\$88.3 million in 2022.

Income tax expense (benefit). Our income tax benefits were US\$51.3 million in 2023, compared to income tax expense of US\$18.4 million in 2022.

Net income (loss). As a result of the foregoing, we recorded a net loss of US\$414.2 million in 2023, compared to a net income of US\$69.9 million in 2022.

Foreign currency translation adjustment, net of nil tax. We recorded US\$6.9 million and US\$36.3 million of negative foreign currency translation adjustment, net of nil tax in 2023 and 2022, respectively, primarily due to the fluctuation of exchange rates.

B. Liquidity and Capital Resources

Our primary source of liquidity historically has been cash generated from our business operations, equity contributions from our shareholders, long term loans and fund raising from the capital market, which have historically been sufficient to meet our working capital and capital expenditure requirements. In June and August 2024, we entered into three secured loan agreements through our wholly-owned subsidiaries with unrelated third-party lenders, receiving total gross loan proceeds of approximately US\$24.4 million. The loans bear interest rates ranging from 2.75% to 6.75% per annum, with terms of 18 months. Interest expense pertaining to the above loans amounted to US\$521 was recorded for the year ended December 31, 2024. For our recent financing activities, please see “Information on the Company—A. History and Development of the Company” and “Item 10. Additional Information—C. Material Contracts.”

As of December 31, 2024, we had cash of US\$96.5 million.

We believe that our existing cash and anticipated cash flows from operating activities and fund raising from the capital market will be sufficient to meet our anticipated working capital requirements and capital expenditures in the ordinary course of business for the next 12 months. We may decide to enhance our liquidity position or increase our cash reserve for future investments through additional equity and debt financing. The issuance and sale of additional equity would result in further dilution to our shareholders. The incurrence of indebtedness would result in an increase in fixed obligations and could result in operating covenants that would restrict our operations. We cannot assure you that financing will be available in amounts or on terms acceptable to us, if at all. We may, however, need additional cash resources in the future if we experience changes in business conditions or other developments, or if we find and wish to pursue opportunities for investments, acquisitions, capital expenditures or similar actions. If we determine that our cash requirements exceed the amount of cash we have on hand at the time, we may seek to issue equity or debt securities or obtain credit facilities.

Our ability to manage our working capital, including receivables and other assets and liabilities and accrued liabilities, may materially affect our financial condition and results of operations.

Summary of Cash Flows

The following table sets forth a summary of our cash flows for the periods indicated:

	Year ended December 31		
	2022 US\$	2023 US\$ (in millions)	2024 US\$
Net cash used in operating activities	(182.6)	(123.6)	(199.3)
Net cash (used in)/provided by investing activities	(8.1)	39.6	61.0
Net cash (used in)/provided by financing activities	(56.2)	90.0	139.7
Net (decrease)/increase in cash	(246.9)	6.0	1.4
Effect of exchange rate changes on cash	(80.0)	(11.4)	(1.1)
Cash and restricted cash at the beginning of year	428.5	101.6	96.2
Cash at the end of year	101.6	96.2	96.5

Operating Activities

Net cash used in operating activities in 2024 was US\$199.3 million. The principal items accounting for the difference between our net cash used in operating activities and our net loss of US\$249.8 million were a US\$100.6 million in inventories write-down and prepayment write-down, a US\$50.7 million in excess of fair value of Convertible Preferred Shares, partially offset by a US\$129.3 million increase in inventories.

Net cash used in operating activities in 2023 was US\$123.6 million. The principal items accounting for the difference between our net cash used in operating activities and our net loss of US\$414.2 million were a US\$190.2 million in inventories write-down, prepayment write-down and provisions for inventory purchase commitments, a US\$122.5 million decrease in prepayments and other current assets and a US\$59.2 million in excess of fair value of Convertible Preferred Shares, partially offset by a US\$123.7 million increase in inventories.

Net cash used in operating activities in 2022 was US\$182.6 million. The principal items accounting for the difference between our net cash used in operating activities and our net income of US\$69.9 million were a US\$232.2 million increase in inventories and a US\$198.7 million decrease in contract liabilities, partially offset by US\$69.5 million in inventories write-down and US\$63.0 million in share-based compensation expense.

Investing Activities

Net cash provided by investing activities was US\$61.0 million in 2024, which was primarily attributable to proceeds from disposal of cryptocurrency of US\$71.5 million and proceeds from disposal of property, equipment and software of US\$8.8 million, offset by purchase of property, equipment and software of US\$19.3 million.

Net cash provided by investing activities was US\$39.6 million in 2023, which was primarily attributable to proceeds from disposal of cryptocurrency of US\$40.6 million, partially offset by purchase of property, equipment and software of US\$3.3 million.

Net cash used in investing activities was US\$8.1 million in 2022, which was primarily attributable to purchase of property, equipment and software of US\$17.7 million, partially offset by proceeds from disposal of cryptocurrency of US\$9.6 million.

Financing Activities

Net cash provided by financing activities was US\$139.7 million in 2024, which was attributable to the proceeds from issuance of convertible preferred shares, net of issuance costs of US\$129.8 million and proceeds from borrowings from long-term loans of US\$9.9 million.

Net cash provided by financing activities was US\$90.0 million in 2023, which was attributable to the proceeds from issuance of ordinary shares, net of issuance costs under At-the-Market Offering Agreements of US\$65.4 million and the proceeds from issuance of Series A Convertible Preferred Shares, net of issuance costs, of US\$24.6 million.

Net cash used in financing activities was US\$56.2 million in 2022, which was attributable to the payment for repurchase of ordinary shares of US\$37.4 million, repurchase for tax withholdings on vesting of restricted share units of US\$22.6 million and repurchase of warrants of US\$6.6 million, partially offset by proceeds from resale of treasury stock of US\$10.4 million.

Capital Expenditures

We made capital expenditures of US\$17.7 million, US\$3.3 million and US\$19.3 million in 2022, 2023 and 2024, respectively. Our capital expenditures primarily comprise expenditures for the purchase of equipment and software and other long-term assets. We will continue to make capital expenditures to meet the expected growth of our business.

Holding Company Structure

Canaan Inc. is a holding company with no material operations of its own. We conduct our operations through our operating subsidiaries in different countries. Canaan Inc.'s ability to pay dividends depends upon its receipt of dividends from our operating subsidiaries. If our existing operating subsidiaries or any newly formed subsidiaries incur debt in the future, the instruments governing their debt may restrict their ability to pay dividends to us. In addition, our subsidiaries in China are permitted to pay dividends to us only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Under PRC law, each of our subsidiaries in China is required to set aside at least 10% of its after-tax profits each year, if any, to fund certain statutory reserve funds until such reserve funds reach 50% of its registered capital. In addition, our subsidiaries in China may allocate a portion of their after-tax profits based on PRC accounting standards to enterprise expansion funds and staff bonus and welfare funds at their discretion. The statutory reserve funds and the discretionary funds are not distributable as cash dividends. Remittance of dividends by a subsidiary out of China is subject to examination by the banks designated by SAFE. Our PRC subsidiaries have not paid dividends and will not be able to pay dividends until they generate accumulated profits and meet the requirements for statutory reserve funds.

In respect of the Singapore subsidiaries, dividends may not be paid unless there are profits available for that purpose. While interim dividends may be declared and/or paid at any time during the relevant financial year before the audited accounts are available, they are by nature wholly provisional and are based on anticipated profits to be disclosed in the final accounts.

For us to remit cash to our PRC subsidiaries, including the net proceeds from any offering of securities outside of China, we may do so through equity investments into our PRC subsidiaries or provision of shareholders' loan to our PRC subsidiaries. We may also establish new operating subsidiaries in the PRC. The maximum amount of equity investment the Company can make into its PRC subsidiaries is not subject to any limitations, while the maximum amount of shareholder loans the Company's PRC subsidiaries can incur is determined by the difference between its registered capital and total investment amount. We did not remit cash to our PRC subsidiaries through our Hong Kong subsidiary in 2022, 2023 and 2024.

Inflation

We incur some of our revenues and expenses in other currencies, mainly including Renminbi, Singaporean Dollars, Kazakhstani Tenge and Malaysian Ringgit, among other currencies. Our consolidated financial statements are presented in U.S. Dollar. As a result, we are exposed to the risk that the rate of inflation in countries where we transact or conduct business will exceed the rate of devaluation of such countries' currencies in relation to the U.S. Dollar or that the timing of any such devaluation will lag behind inflation in such countries. Although we have not been materially affected by inflation in the past, we may be adversely affected in the future by inflationary pressures.

C. Research and Development, Patents and Licenses, etc.

Technology and Product Offering Development

See “Item 4. Information on the Company—B. Business Overview.”

Intellectual Property

See “Item 4. Information on the Company—B. Business Overview—Intellectual Property.”

D. Trend Information

Please refer to “—A. Results of Operations” for a discussion of the most recent trends in our products and sales by the end of 2024. In addition, please refer to discussions included in such Item and “Item 3. Key Information—D. Risk Factors” for a discussion of known trends, uncertainties, demands, commitments or events that we believe are reasonably likely to have a material effect on our net sales and operating revenues, income from continuing operations, profitability, liquidity or capital resources, or that would cause reported financial information to be not necessarily indicative of our future operating results or financial condition.

E. Critical Accounting Estimates

We prepare our consolidated financial statements in accordance with U.S. GAAP, which requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses recognized in the consolidated financial statements. Our management evaluates whether estimates should be made on an ongoing basis, utilizing historical experience, consultation with experts and other methods management considers reasonable in the particular circumstances. However, uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amount of the assets or liabilities in the future.

We consider an accounting estimate to be critical if: (i) the accounting estimate requires us to make assumptions about matters that were highly uncertain at the time the accounting estimate was made, and (ii) changes in the estimate that are reasonably likely to occur from period to period or use of different estimates that we reasonably could have used in the current period, would have a material impact on our financial condition or results of operations. There are other items within our financial statements that require estimation but are not deemed critical, as defined above. Changes in estimates used in these and other items could have a material impact on our financial statements.

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Senior Management

<u>Name</u>	<u>Age</u>	<u>Position/Title</u>
Nangeng Zhang	43	Chairman of the Board and Chief Executive Officer
James Jin Cheng	47	Chief Financial Officer
Wenjun Zhang	60	Independent Director
Hongchao Du	58	Independent Director
Zhitang Shu	59	Independent Director
Yaping Zhang	51	Independent Director
Lu Meng	43	Secretary to the Board

Nangeng Zhang is a founding member of our Company and has served as our Chairman of the Board and chief executive officer since our inception. Mr. Zhang has approximately 14 years of experience in electronic device design, engineering, manufacturing, quality control and research and development and is responsible for formulating and overseeing our overall development strategies and operations. Before founding our company, Mr. Zhang was an assistant researcher at the Beijing Remote Sensing and Communication Technology Institution, a research institution which specializes in research and development and production and marketing of antenna, detector, photoelectric measuring equipment, mid-wave infrared camera, from August 2005 to July 2008. Mr. Zhang received a bachelor's degree in electronic information engineering and a master's degree in software engineering from Beihang University in the PRC in July 2005 and July 2010, respectively. From September 2010 to October 2013, Mr. Zhang was pursuing a Ph.D. degree at Beihang University.

James Jin Cheng has served as our chief financial officer since August 2021. Mr. Cheng has more than 20 years of experience in financial planning and management. Prior to joining Canaan, Mr. Cheng spent almost 6 years at Zhaopin.com, a career platform in China formerly listed on the NYSE, as a Vice President. From September 2013 to September 2015, Mr. Cheng served as the Director of Finance for Lenovo China and Asia Pacific Division. From February 2005 to August 2013, Mr. Cheng held several managerial roles at Nokia China, such as senior sales finance controller. From March 2003 to January 2005, Mr. Cheng worked as a demand planning manager at Effem Foods Beijing, a company of Mars. Mr. Cheng holds a bachelor's degree in accounting from Shanghai Jiao Tong University, an MBA degree from the Bi-MBA program at Peking University, and a Master of Science in Global Finance degree from Fordham University in New York. Mr. Cheng is also a fellow member of the Chartered Institute of Management Accountants (CIMA) since 2016 and a fellow member of the Institute of Public Accountants (IPA) since 2019. Mr. Cheng has been admitted as an international affiliate of Hong Kong Institute of Certified Public Accountants since February 2024. Mr. Cheng brings strong financial and accounting skills to the Company's board of directors.

Wenjun Zhang has served as our independent director since August 2020. Mr. Zhang has over 20 years of experience in corporate management, capable of managing various function units and coordinate cross department cooperation. Mr. Zhang has also served as a managing director at Beijing Zhijian Engineering Co. Ltd. since December 2012. Mr. Zhang served as a vice president at Mesnac Co. Ltd., a public company listed on the Shenzhen Stock Exchange (SZSE: 002073) from March 1999 to November 2012. He served as a vice general manager at Dalian Rubber & Plastics Machinery Works from May 1995 to February 1999. Mr. Zhang served as a project manager at Dalian Int'l Economic & Technical Corporation from October 1993 to April 1995. Mr. Zhang served as an engineer at Dalian Rubber & Plastics Machinery Works from September 1986 to September 1993. Mr. Zhang received a bachelor's degree in plastic and polymer engineering technology from Beijing University of Chemical Technology in the PRC in 1986 and a master's degree in political economy from Beijing Normal University in the PRC in 1999.

Hongchao Du has served as our independent director since August 2020. Mr. Du has more than 28 years of experience in informational technology. From March 1993 to August 1997, Mr. Du developed a series of English-Chinese translation software such as "English-Chinese Communication," "Instant Communication," and other real-time screen English-Chinese translation systems. From July 1996 to October 1999, he developed the first internet-based Chinese-version Windows platform "Cross-Strait Communication." In April 2000, he established the largest IT community in China, DoNews.com. All these software and platforms has been widely used by both domestic and overseas users. Mr. Du served as a consultant in charge of Internet and new media at the State-owned Assets Supervision and Administration Commission of the State Council from December 2014 to December 2016, and was the launch expert of the Internet+ of Internet Society of China from January 2016 to December 2020. In addition, Mr. Du developed an all-purpose game card and duplicating system, which won the gold medal of the National University Science and Technology Achievement Expo in October 1991.

Zhitang Shu has served as our independent director since August 2020. Mr. Shu has more than 10 years of experience in business management and legal services. Mr. Shu has also served as the founding partner, a member of the management committee and the initiator of the business development and facilitation committee at Merits & Tree Law Offices since March 2017. Mr. Shu served as an associate at Commerce & Finance Law Offices since February 2007 and became a partner till March 2017. Mr. Shu served as a training manager at Ping An Insurance Company, sales manager at Taikang Life Insurance Company, manager assistant at Du Li Real Estate Development Co., Ltd., head of marketing at Beijing Aerospace Purin Technology Co., Ltd., from October 1992 to December 2006. Mr. Shu served as cadre at Hubei Xiangfan Science and Technology Committee from July 1988 to October 1992. Mr. Shu received a bachelor's degree in law from Renmin University of China in the PRC in 2013 and a master's degree in EMBA from Cheung Kong Graduate School of Business in the PRC in 2019.

Yaping Zhang has served as our independent director since August 2020. Ms. Zhang has more than 20 years of experience in corporate financial management, including nine years of experience serving as a financial manager in a public company. Since July 2021, Ms. Zhang has served as the deputy general manager of Beijing Yade Jiaye Investment Co., Ltd. She served as a director of finance at Beijing Jingxi Cultural Tourism Co., Ltd., a public company listed on the Shenzhen Stock Exchange (SZSE: 000802) from April 2011 to June 2020. Ms. Zhang served as a deputy manager of finance department at China Huali Holdings Group Co., Ltd. from May 2004 to April 2011. Ms. Zhang served as an account at Beijing Zhuzong Zhuzhaiyi Company from July 1997 to May 2004. Ms. Zhang received a bachelor's degree in enterprise finance from Capital University of Economics in 1997. Ms. Zhang is qualified as a certified public accountant (CPA) and a senior international financial manager, and she also obtained mid-level and senior-level accountant certification.

Lu Meng has served as the secretary to our board of directors since March 2022. Ms. Meng joined our company in September 2018 and has served as the assistant to the chief executive officer and administrative director of our company. Ms. Meng has long-term working experience in Internet, technology and media industry. Ms. Meng previously served as a senior manager at Kuaishou Technology (HK: 1024) from March 2018 to September 2018. Prior to that, Ms. Meng served as a senior general affairs project manager at Baidu, Inc. (Nasdaq: BIDU; HK: 9888) from August 2013 to September 2017. From October 2010 to March 2013, Ms. Meng served as the assistant to the vice president at IBM China Research Laboratory. Ms. Meng holds a bachelor's degree in applied chemistry and a master's degree in analytical chemistry from University of Science and Technology Beijing.

B. Compensation

For the year ended December 31, 2024, we paid an aggregate of US\$6.2 million in cash to our directors and executive officers. We have not set aside or accrued any amount to provide pension, retirement or other similar benefits to our directors and executive officers. Our mainland China subsidiaries are required by law to make contributions equal to certain percentages of each employee's salary for his or her pension insurance, medical insurance, unemployment insurance and other statutory benefits and a housing provident fund.

Employment Agreements and Indemnification Agreements

We have entered into employment agreements with each of our executive officers. We may terminate their employment for cause at any time for certain acts, such as a material breach of our company's employment principles, policies or rules, a material failure to perform his or her duties, misappropriation or embezzlement or a criminal conviction. We may also terminate any executive officer's employment without cause by giving written notice. In such cases, an executive officer is entitled to severance payments and benefits. An executive officer may terminate his or her employment at any time by giving written notice, in which case the executive officer will not be entitled to any severance payments or benefits.

Our executive officers have also agreed not to engage in any activities that compete with us or to directly or indirectly solicit the services of any of our employees, for a certain period after the termination of employment. Each executive officer has agreed to hold in strict confidence any trade secrets of our company, including technical secrets, marketing information, management information, legal information, third-party business secrets and other kinds of confidential information. Each executive officer also agrees to perform his or her confidentiality obligation and protect our company's trade secrets in a way consistent with the policies, rules and practices of our company. Breach of the above confidentiality obligations would be deemed a material breach of our company's employment policies, and we are entitled to seek legal remedies.

We have entered into indemnification agreements with each of our directors and executive officers. Under these agreements, we agree to indemnify our directors and executive officers against certain liabilities and expenses incurred by such persons in connection with claims made by reason of their being a director or officer of our company.

We have entered into director agreements with each of our independent directors. These agreements set forth the services to be provided and compensation to be received by our independent directors, as well as the independent directors' obligations in terms of confidentiality, non-competition and non-solicitation.

Share Incentive Plan

2018 Equity Incentive Plan

We adopted an equity incentive plan in April 2018, or the 2018 Equity Incentive Plan, which provided for the grant of restricted ordinary shares. We have granted all 25,812 restricted ordinary shares, before the one-for-2,000 share division, authorized under the 2018 Share Award Scheme. As of the date of this annual report, after the share division, 51,624,000 restricted ordinary shares exist under the 2018 Equity Incentive Plan, out of which 9,244,516 restricted ordinary shares have been canceled due to departing employees, 16,000,000 restricted ordinary shares and 25,759,997 restricted share units have vested.

Amended 2018 Plan

In April 2021, our board of directors approved an amendment to the 2018 Equity Incentive Plan, or the Amended 2018 Plan. Pursuant to the Amended 2018 Plan, in April 2021 and on every January 1 thereafter during which the 2018 Equity Incentive Plan remains in effect, the maximum aggregate number of Class A Ordinary Shares which may be subject to awards under the 2018 Equity Incentive Plan will be automatically increased by 15.0% of the total number of ordinary Shares issued and outstanding on December 31 of the preceding calendar year, if and whenever the unallocated ordinary Shares which may be issuable under the 2018 Equity Incentive Plan account for less than 3% of the then total issued and outstanding ordinary Shares. In May and September 2021, our board of directors approved an increase by 94,927,065 ordinary shares and 63,774,885 ordinary shares, representing 4.0% and 2.7% of total issued and outstanding shares at the end of 2021 pursuant to the Amended 2018 Plan, respectively. As of December 31, 2024, 895,563,240 restricted share units and 144,000,000 share options have been granted under the Amended 2018 Plan, including to certain directors and officers, 158,701,950 restricted share units have vested, 76,105,725 restricted share units have been cancelled due to departing employees and 84,000,000 share options have been cancelled.

C. Board Practices Board of Directors

Our board of directors consists of five directors. A director is not required to hold any shares in our company to qualify to serve as a director. A director who is in any way, whether directly or indirectly, interested in a contract, transaction or proposed contract or transaction with us is required to declare the nature of his or her interest at a meeting of the directors. A director may vote with respect to any contract or any proposed contract or arrangement in which he or she is interested, and if he or she does so his or her vote shall be counted and he or she may be counted in the quorum at any meeting of our directors at which any such contract or proposed contract or arrangement is considered. The directors may exercise all the powers of the Company to borrow money, to mortgage or charge its undertaking, property and uncalled capital, and to issue debentures or other securities whenever money is borrowed or as security for any debt, liability or obligation of the Company or of any third party.

Duties of Directors

Under Cayman Islands law, our directors owe fiduciary duties to our company, including a duty of loyalty, a duty to act honestly, and a duty to act in what they consider in good faith to be in our best interests. Our directors must also exercise their powers only for a proper purpose. Our directors also have a duty to exercise skills they actually possess and such care and diligence that a reasonably prudent person would exercise in comparable circumstances. It was previously considered that a director need not exhibit in the performance of his duties a greater degree of skill than what may reasonably be expected from a person of his knowledge and experience. However, English and Commonwealth courts have moved towards an objective standard with regard to the required skill and care, and these authorities are likely to be followed in the Cayman Islands. In fulfilling their duty of care to us, our directors must ensure compliance with our memorandum and articles of association, as amended and restated from time to time, and the class rights vested thereunder in the holders of the shares. Our company has the right to seek damages if a duty owed by our directors is breached. A shareholder may in certain circumstances have rights to damages if a duty owed by the directors is breached.

Terms of Directors and Executive Officers

Our directors may be elected by a resolution of our board of directors, or by an ordinary resolution of our shareholders, pursuant to our amended and restated memorandum and articles of association. Each of our directors will hold office until his or her earlier resignation or removal or the expiration of his or her term as provided in the written agreement with our company, if any. A director will cease to be a director if, among other things, the director (i) becomes bankrupt or makes any arrangement or composition with his or her creditors; (ii) dies or is found to be or becomes of unsound mind, (iii) resigns his or her office by notice in writing to the Company, (iv) without special leave of absence from the board of directors is absent from three consecutive meetings of the board of directors and the board resolves that his office be vacated, or (v) is removed from office pursuant to any other provisions of our amended and restated articles of association. Our officers are elected by and serve at the discretion of the board of directors.

Board Committees

Our board of directors has established an audit committee, a compensation committee, and a nominating and corporate governance committee. As a foreign private issuer, we are permitted to follow home country corporate governance practices under the Nasdaq Stock Market Rules. Each committee's members and functions are described below.

Audit Committee

Our audit committee consists of Yaping Zhang, Zhitang Shu and Wenjun Zhang. Yaping Zhang is the chairman of our audit committee. Yaping Zhang satisfies the criteria of an audit committee financial expert as set forth under the applicable rules of the SEC. Each of Yaping Zhang, Zhitang Shu and Wenjun Zhang satisfies the requirements for an "independent director" within the meaning of the Nasdaq Stock Market Rules and meets the criteria for independence set forth in Rule 10A-3 of the United States Securities Exchange Act of 1934, as amended, or the Exchange Act. Our audit committee consists solely of independent directors.

The audit committee oversees our accounting and financial reporting processes and the audits of our financial statements. Our audit committee is responsible for, among other things:

- selecting, and evaluating the qualifications, performance and independence of, the independent auditors;
- pre-approving or, as permitted, approving auditing and non-auditing services permitted to be performed by the independent auditors;
- considering the adequacy of our internal accounting controls and audit procedures;
- reviewing with the independent auditors any audit problems or difficulties and management's response;
- reviewing and approving related party transactions between us and our directors, senior management and other persons specified in Item 6B of Form 20-F;
- reviewing and discussing the quarterly financial statements and annual audited financial statements with management and the independent auditors;
- establishing procedures for the receipt, retention and treatment of complaints received from our employees regarding accounting, internal accounting controls or auditing matters and the confidential, anonymous submission by our employees of concerns regarding questionable accounting or auditing matters;
- meeting separately, periodically, with management, internal auditors and the independent auditors; and
- reporting regularly to the full board of directors.

Compensation Committee

Our compensation committee consists of Hongchao Du and Nangeng Zhang. Hongchao Du is the chairman of our compensation committee. Hongchao Du satisfies the requirements for an “independent director” within the meaning of the Nasdaq Stock Market Rules.

Our compensation committee is responsible for, among other things:

- reviewing, evaluating and, if necessary, revising our overall compensation policies;
- reviewing and evaluating the performance of our directors and executive officers and determining the compensation of our directors and executive officers;
- reviewing and approving our executive officers’ employment agreements with us;
- determining performance targets for our executive officers with respect to our incentive compensation plan and equity-based compensation plans;
- administering our equity-based compensation plans in accordance with the terms thereof; and
- carrying out such other matters that are specifically delegated to the compensation committee by our board of directors from time to time.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Nangeng Zhang and Hongchao Du. Nangeng Zhang is the chairman of our nominating and corporate governance committee. Hongchao Du satisfies the requirements for an “independent director” within the meaning of the Nasdaq Stock Market Rules.

Our nominating and corporate governance committee is responsible for, among other things:

- selecting the board nominees for election by the shareholders or appointment by the board;
- periodically reviewing with the board the current composition of the board with regards to characteristics such as independence, knowledge, skills, experience and diversity;
- making recommendations on the frequency and structure of board meetings and monitoring the functioning of the committees of the board; and
- advising the board periodically with regards to significant developments in corporate governance law and practices as well as our compliance with applicable laws and regulations, and making recommendations to the board on corporate governance matters.

Code of Ethics and Corporate Governance

We have adopted a code of ethics, which is applicable to all of our directors, executive officers and employees. We have posted a copy of our code of business conduct and ethics on our website at <http://investor.canaan-creative.com>.

In addition, our board of directors has adopted a set of corporate governance guidelines covering a variety of matters, including approval of related party transactions. Our corporate governance guidelines also provide that any adoption of a new share award scheme and any material amendments to such plans will be subject to the approval of our non-executive directors. The guidelines reflect certain guiding principles with respect to our board's structure, procedures and committees. The guidelines are not intended to change or interpret any applicable law, rule or regulation or our amended articles of association.

Qualification

There is no requirement for our directors to own any shares in our company in order for them to qualify as a director.

D. Employees

See "Item 4. Information on the Company—B. Business Overview—Employees."

E. Share Ownership

The following table sets forth information as of the date of this report with respect to the beneficial ownership of our ordinary shares by:

- each of our directors and executive officers;
- our directors and executive officers as a group; and
- each person known to us to own beneficially 5% or more of our ordinary shares.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to, or the power to receive the economic benefit of ownership of, the securities. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we have included shares that the person has the right to acquire within 60 days, including through the exercise of any option or other right or the conversion of any other security.

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The total number of 6,303,953,387 ordinary shares outstanding as of the date of this annual report comprises 5,992,328,943 Class A ordinary shares and 311,624,444 Class B ordinary shares.

	Ordinary Shares Beneficially Owned			
	Number of Class A ordinary shares	Number of Class B ordinary shares	% of total ordinary shares on an as-converted basis	% of voting power†
Directors and Executive Officers:*				
Nangeng Zhang ⁽¹⁾	253,517,325	311,624,444	9.0	46.2
James Jin Cheng	**	—	**	**
Lu Meng	**	—	**	**
Wenjun Zhang	—	—	—	—
Hongchao Du	—	—	—	—
Zhitang Shu	—	—	—	—
Yaping Zhang	—	—	—	—
Directors and Executive Officers as a Group	266,810,220	311,624,444	9.2	46.3
Principal Shareholders:				
Flueqel Ltd. ⁽²⁾	—	311,624,444	4.9	43.8

Notes:

* The business address for our directors and executive officers is 28 Ayer Rajah Crescent #06-08, S139959, Singapore.

** Beneficially owns less than 1% of our outstanding shares.

† For each person and group included in this column, percentage of voting power is calculated by dividing the voting power beneficially owned by such person or group by the voting power of all of our Class A and Class B ordinary shares as a single class. In respect of matters requiring a shareholder vote, each Class A ordinary share will be entitled to one vote and each Class B ordinary share will be entitled to 15 votes. Each Class B ordinary share is convertible into one class A ordinary share at any time by the holder thereof. Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances.

(1) Represents (i) a number of Class A ordinary shares that Nangeng Zhang has the right to acquire upon exercise of the options within 60 days pursuant to the terms relating to the restricted share units granted to him under the Amended and Restated 2018 Share Incentive Plan, and (ii) 311,624,444 Class B ordinary shares held by Flueqel Ltd., a company incorporated under the laws of the British Virgin Islands, which is indirectly wholly owned by a trust of which Nangeng Zhang is the beneficiary. Flueqel Ltd. is further described in footnote 2 below.

(2) Represents 311,624,444 Class B ordinary shares held by Flueqel Ltd., a company incorporated under the laws of the British Virgin Islands, which is indirectly wholly owned by a trust of which Nangeng Zhang is the beneficiary. The registered address of Flueqel Ltd. is Sertus Chambers, P.O. Box 905, Quastisky Building, Road Town, Tortola, British Virgin Islands.

To our knowledge and based on our review of our register of members as of the date of this annual report, 5,874,758,835 Class A ordinary shares were held of record by one holder that reside in the United States, being The Bank of New York Mellon, the depository of our ADS program. The number of beneficial owners of our ADSs in the United States is likely to be much larger than the number of record holder of our Class A ordinary shares in the United States. We are not aware of any arrangement that may, at a subsequent date, result in a change of control of our company.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

See “Item 6. Directors, Senior Management and Employees—E. Share Ownership”

B. Related Party Transactions

None.

C. Interests of Experts and Counsel

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

Please refer to Item 18 for a list of our annual consolidated financial statements filed as part of this annual report on Form 20-F.

Legal Proceedings

See “Item 4. Information on the Company—B. Business Overview—Legal Proceedings.”

Dividend Policy and Distributions

Since our inception, we have not declared or paid any dividends on our ordinary shares. We do not have any present plan to pay any dividends on our ordinary shares or ADSs in the foreseeable future. We intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business.

Our board of directors has complete discretion on whether to distribute dividends, subject to certain requirements of Cayman Islands law, namely that our company may only pay dividends out of profits or share premium, and provided always that in no circumstances may a dividend be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our board of directors. Even if our board of directors decides to pay dividends on our ordinary shares, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors our board of directors may deem relevant.

Any future determination to pay dividends will be made at the discretion of our board of directors and may be based on a number of factors, including our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the board of directors may deem relevant. If we pay any dividends, we will pay our ADS holders to the same extent as holders of our ordinary shares, subject to the terms of the deposit agreement, including the fees and expenses payable thereunder. Cash dividends on our ordinary shares, if any, will be paid in U.S. dollars.

We are a holding company incorporated in the Cayman Islands. In order for us to distribute any dividends to our shareholders and ADS holders, we rely on dividends distributed by our subsidiaries in the PRC and other jurisdictions. Distributions from our subsidiaries to us may be subject to various local taxes, such as withholding tax. In addition, regulations in the PRC currently permit the payment of dividends of a PRC company only out of accumulated distributable after-tax profits as determined in accordance with its articles of association and the accounting standards and regulations in China.

B. Significant Changes

We have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

Our ADSs, each representing 15 of our Class A ordinary shares, have been listed on the Nasdaq Global Market since November 21, 2019 under the symbol “CAN.” See Exhibit 2.4 to this Form 20-F for a description of our ADSs.

B. Plan of Distribution

Not applicable.

C. Markets

Our ADSs, each representing 15 of our Class A ordinary shares, have been listed on the Nasdaq Global Market since November 21, 2019 under the symbol “CAN.”

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

We incorporate by reference into this annual report the description of our amended and restated memorandum and articles of association contained in our [Form F-1 registration statement \(File No. 333-234356\), as amended, initially filed with the Securities and Exchange Commission on October 28, 2019](#). Our shareholders adopted our amended and restated memorandum and articles of association by unanimous resolutions passed on October 4, 2019, and effective immediately prior to the completion of our initial public offering.

C. Material Contracts

On April 8, 2022, we entered into an at the market offering agreement (as amended by the Amendment No. 1 to ATM Agreement dated as of November 23, 2022 and as may be further amended, supplemented or otherwise modified from time to time, the “ATM”) with H.C. Wainwright & Co., LLC (“Wainwright”), as pursuant to which we may offer and sell, from time to time, through Wainwright, ADSs, each representing 15 Class A ordinary shares, par value of \$0.00000005 per share. We have no obligation to sell any ADSs pursuant to the ATM Offering Agreement and may at any time suspend sales pursuant to the ATM Offering Agreement.

On June 23, 2022, we entered into agreements with certain warrant holders to repurchase over 4.72 million outstanding warrants (“Warrants”) of the Company for an aggregate purchase price of approximately US\$6.61 million. The Warrants were issued by us in May 2021 pursuant to (i) certain Securities Purchase Agreement between the Company and the purchasers party thereto, dated April 29, 2021, and (ii) certain placement agent agreement between the Company and the placement agents thereto, dated April 29, 2021. The transaction closed on in 2022.

On November 10, 2023, we entered into an at market issuance sales agreement with B. Riley Securities, Inc. as a sales agent. From November 10, 2023 to December 31, 2023, we utilized the agreement with B. Riley Securities, Inc. for fundraising and sold 31,347,044 ADSs with net proceeds of approximately US\$61.2 million at an average price of US\$1.99 per ADS. Effective December 20, 2024, we terminated the at-the-market offering agreement with B. Riley, dated as of November 10, 2023, related to the offer and sale of our ADSs in at-the-market equity offering program.

On November 27, 2023, we entered into a securities purchase agreement with an institutional investor (the “Buyer”), pursuant to which we agreed to issue and sell to the Buyer up to 125,000 Series A Preferred Shares at the price of US\$1,000.00 for each Series A Preferred Share (the “Series A Preferred Shares Financing”). The Series A Preferred Shares Financing was conducted in three tranches. The first tranche and second tranche of the Series A Preferred Shares Financing were closed on December 11, 2023 and January 22, 2024, raising total gross proceeds of US\$25 million and US\$50 million, respectively. On September 27, 2024, we closed the third and final tranche of the Series A Preferred Shares Financing, raising additional total gross proceeds of US\$50 million. As of the date of this annual report, the third tranche of 50,000 Series A Preferred Shares are issued and outstanding.

On November 19, 2024, the Company entered into a securities purchase agreement with the Buyer, pursuant to which the Company agreed to issue and sell to the Buyer 30,000 Series A-1 Convertible Preferred Shares (the “Series A-1 Preferred Shares”) at the price of US\$1,000.00 for each Series A-1 Preferred Share. On November 25, 2024, we closed the Series A-1 preferred shares financing, raising total gross proceeds of US\$30 million. All such shares have been converted into Class A ordinary shares. As of the date of this annual report, there are no issued and outstanding Series A-1 Preferred Shares.

On December 23, 2024, we entered into a sales agreement (the “ATM Agreement”) with Macquarie Capital Limited, Keefe, Bruyette & Woods, Inc., China Renaissance Securities (Hong Kong) Limited, Compass Point Research & Trading, LLC, Craig-Hallum Capital Group LLC, Northland Securities, Inc., Rosenblatt Securities Inc., The Benchmark Company, LLC, and B. Riley Securities Inc. as sales agents. We filed a new prospectus supplement dated December 23, 2024, setting up the new at-the-market equity offering program (the “ATM Program”), under which the Company may sell up to an aggregate of US\$270 million of the ADSs, each representing fifteen Class A ordinary shares of the Company, through or to the sales agents.

On March 6, 2025, we entered into a Securities Purchase Agreement with an institutional investor, relating to the purchase of up to 200,000 Series A-1 Preferred Shares at US\$1,000.00 for each Series A-1 Preferred Share, providing with total gross proceeds of up to US\$200 million (the “Preferred Shares Financing”). The first tranche closing under the Preferred Shares Financing was completed on March 10, 2025, where an initial US\$100 million has been received.

D. Exchange Controls

See “Item 4. Information on the Company—B. Business Overview—Regulations in the PRC— PRC Laws and Regulations Relating to Foreign Exchange.”

E. Taxation

The following is summaries of certain material Cayman Islands, People’s Republic of China and United States federal income tax consequences relevant to an investment in the ADSs and ordinary shares. The discussion is not intended to be, nor should it be construed as, legal or tax advice to any particular prospective purchaser or holder. The discussion is based on laws and relevant interpretations thereof in effect as of the date of this annual report, all of which are subject to change or different interpretations, possibly with retroactive effect. The discussion does not address U.S. state or local tax laws, or tax laws of jurisdictions other than the Cayman Islands, the People’s Republic of China and the United States. You should consult your own tax advisors with respect to the consequences of acquisition, ownership and disposition of the ADSs and ordinary shares.

Cayman Islands Taxation

The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciations and there is no taxation in the nature of inheritance tax or estate duty or withholding tax applicable to us or to any holder of the ADSs and ordinary shares. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duties which may be applicable on instruments executed in, or after execution brought within the jurisdiction of, the Cayman Islands. Payments of dividends and capital in respect of the ADSs and ordinary shares will not be subject to taxation in the Cayman Islands and no withholding will be required on the payment of a dividend or capital to any holder of the ADSs and ordinary shares, nor will gains derived from the disposal of the ADSs and ordinary shares be subject to Cayman Islands income or corporation tax. There are no exchange control regulations or currency restrictions in the Cayman Islands.

People's Republic of China Taxation

In March 2007, the National People's Congress of China enacted the Enterprise Income Tax Law, which became effective on January 1, 2008 and was last revised on December 29, 2018. The Enterprise Income Tax Law provides that enterprises organized under the laws of jurisdictions outside China with their "de facto management bodies" located within China may be considered PRC resident enterprises and therefore subject to PRC enterprise income tax at the rate of 25% on their worldwide income. The Implementing Rules of the Enterprise Income Tax Law further define the term "de facto management body" as the management body that exercises substantial and overall management and control over the business, personnel, accounts and properties of an enterprise. While we do not consider our company or any of our overseas subsidiaries to be a PRC resident enterprise, there is a risk that the PRC tax authorities may deem our company or any of our overseas subsidiaries as a PRC resident enterprise since a substantial majority of the members of our management team as well as the management team of some of our overseas subsidiaries are located in China, in which case we or the overseas subsidiaries, as the case may be, would be subject to the PRC enterprise income tax at the rate of 25% on worldwide income. If the PRC tax authorities determine that our Cayman Islands holding company is a "resident enterprise" for PRC enterprise income tax purposes, a 10% withholding tax would be imposed on dividends we pay to our non-PRC enterprise shareholders and a 10% tax would be imposed with respect to gains derived by our non-PRC enterprise shareholders from transferring our shares or ADSs. Furthermore, dividends paid to individual investors who are non-PRC residents and any gain realized on the transfer of ADSs or ordinary shares by such investors may be subject to PRC tax at a rate of 20% (which in the case of dividends may be withheld at source). Any PRC tax liability may be reduced by an applicable tax treaty. However, it is unclear whether, if we are considered a PRC resident enterprise, holders of our shares or ADSs would be able to claim the benefit of income tax treaties or agreements entered into between China and other countries or areas.

United States Federal Income Tax Considerations

The following discussion is a summary of the material United States federal income tax consequences of the purchase, ownership and disposition of the ADSs and ordinary shares as of the date hereof. This discussion deals only with ADSs and ordinary shares that are held as "capital assets" (generally, property held for investment) within the meaning of Section 1221 of the U.S. Internal Revenue Code of 1986, as amended, or the Code, by a United States Holder (as defined below).

As used herein, the term "United States Holder" means a beneficial owner of ADSs or ordinary shares that is, for United States federal income tax purposes, any of the following:

- an individual citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to United States federal income taxation regardless of its source; or
- a trust if it (1) is subject to the primary supervision of a court within the United States and one or more United States persons have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable United States Treasury regulations to be treated as a United States person.

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This discussion is based upon provisions of the Code and U.S. Treasury regulations, rulings and judicial decisions thereunder as of the date hereof. Such authorities may be replaced, revoked or modified, possibly with retroactive effect, and which replacement, revocation, or modification could significantly affect the tax consequences described below. In addition, this discussion is based, in part, upon representations made by the depositary to us and assumes that the deposit agreement, and all other related agreements, will be performed in accordance with their terms. We have not sought any ruling from the IRS with respect to the statements made and the conclusions reached in the following discussion and there can be no assurance that the IRS or a court will agree with our statements and conclusions.

This discussion does not represent a detailed description of all of the United States federal income tax consequences applicable to particular United States Holders in light of individual circumstances, including to United States Holders in special tax situations such as:

- a broker or dealer in stock, securities or currencies;
- a bank and certain other financial institutions;
- a regulated investment company;
- a real estate investment trust;
- an insurance company;
- a tax-exempt organization;
- a person holding the ADSs or ordinary shares as part of a hedging, integrated or conversion transaction, a constructive sale or a straddle;
- a person that has elected the mark-to-market method of accounting for our securities;
- a certain former citizen or resident of the United States subject to Section 877 of the Code;
- an entity subject to the United States anti-inversion rules;
- a person liable for alternative minimum tax;
- a person who owns or is deemed to own 10% or more of our total stock by vote or value;
- a partnership or other pass-through entity for United States federal income tax purposes, or persons holding ordinary shares through such entities;
- a person required to accelerate the recognition of any item of gross income with respect to the ADSs or ordinary shares as a result of such income being recognized on an applicable financial statement;
- a person holding the ADSs or ordinary shares in connection with a permanent establishment or fixed base outside the United States; or
- a person whose “functional currency” is not the United States dollar.

If a partnership (or other entity treated as a partnership for United States federal income tax purposes) holds the ADSs or ordinary shares, the tax treatment of a partner in such partnership will generally depend upon the status of the partner and the activities of such partnership. If the United States Holder is a partner of a partnership holding the ADSs or ordinary shares, such United States Holder should consult its tax advisors regarding the tax consequences of investing in and holding our ADSs or ordinary shares.

This discussion does not contain a detailed description of all the United States federal income tax consequences to United States Holders and does not address the Medicare tax on net investment income, any tax consequences arising in respect of the Foreign Account Tax Compliance Act, United States federal estate and gift taxes or the effects of any state, local or non-United States tax laws. United States Holders should consult their tax advisors concerning the particular United States federal tax consequences of the purchase, ownership and disposition of our ADSs or ordinary shares, as well as any consequences arising under the laws of any other taxing jurisdiction.

ADSs

A United States Holder of our ADSs, for United States federal income tax purposes, should generally be treated as the owner of the underlying ordinary shares that are represented by such ADSs. Accordingly, deposits or withdrawals of ordinary shares for ADSs generally are not expected to be subject to United States federal income tax. The remainder of this discussion assumes that a United States Holder of the ADSs will be treated in this manner.

Taxation of Dividends

Subject to the discussion under “—Passive Foreign Investment Company” below, the gross amount of distributions on the ADSs or ordinary shares to a United States Holder (including any amounts withheld to reflect PRC withholding taxes, as discussed above under “—People’s Republic of China Taxation”) will be taxable as dividends to the extent paid out of our current or accumulated earnings and profits, as determined under United States federal income tax principles. To the extent that the amount of any distribution exceeds our current and accumulated earnings and profits for a taxable year, the distribution will first be treated as a tax-free return of capital to a United States Holder, causing a reduction in the tax basis of the ADSs or ordinary shares, and to the extent the amount of the distribution exceeds such United States Holder’s tax basis, the excess will be taxed as capital gain recognized on a sale or exchange. We do not, however, expect to determine our earnings and profits in accordance with United States federal income tax principles. Therefore, United States Holders should expect that any distribution paid will generally be treated as a dividend for United States federal income tax purposes. Such dividends will not be eligible for the dividends received deduction allowed to corporations under the Code.

With respect to non-corporate United States Holders, certain dividends received from a “qualified foreign corporation” may qualify for reduced rates of taxation applicable to “qualified dividend income”. A non-United States corporation (other than a corporation that is a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) will generally be treated as a “qualified foreign corporation” (a) with respect to dividends paid by that corporation on shares (or ADSs backed by such shares) that are readily tradable on an established securities market in the United States or (b) if such non-United States corporation is eligible for the benefits of a qualifying income tax treaty with the United States that includes an exchange of information program.

Under a published IRS Notice, ordinary shares are considered to be readily tradable on an established securities market in the United States if they are listed on the Nasdaq Global Market, as our ADSs are. Thus, we believe, but cannot guarantee, that dividends we pay on the ADSs will meet the conditions required for these reduced tax rates. Since our ordinary shares are not listed on an established securities market in the United States, we do not believe that dividends that we pay on our ordinary shares that are not represented by ADSs currently meet the conditions required for these reduced tax rates. There also can be no assurance that the ADSs will be considered readily tradable on an established securities market in the United States in later years. A qualified foreign corporation also includes a foreign corporation that is eligible for the benefits of certain income tax treaties with the United States. In the event that we are deemed to be a PRC resident enterprise under the Enterprise Income Tax Law, we may be eligible for the benefits of the Agreement Between the Government of the United States of America and the Government of the People’s Republic of China for the Avoidance of Double Taxation and the Prevention of Tax Evasion With Respect to Taxes on Income, or the Treaty, and if we are eligible for such benefits, dividends we pay on our ordinary shares, regardless of whether such shares are represented by ADSs, would be eligible for reduced rates of taxation, subject to applicable limitations. See “—People’s Republic of China Taxation” for further information on the Enterprise Income Tax Law.

Even if dividends would be treated as paid by a qualified foreign corporation, a non-corporate United States Holder will not be eligible for reduced rates of taxation if it does not hold our ADSs for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date (disregarding certain periods of ownership while the United States Holder's risk of loss is diminished) or if such United States Holder elects to treat the dividend income as "investment income" pursuant to Section 163(d)(4) of the Code. In addition, the rate reduction will not apply to dividends of a qualified foreign corporation if the non-corporate United States Holder receiving such dividend is obligated to make related payments with respect to positions in substantially similar or related property. This disallowance applies even if the minimum holding period has been met. Non-corporate United States Holders will not be eligible for reduced rates of taxation on any dividends received from us if we are a passive foreign investment company in the taxable year in which such dividends are paid or in the preceding taxable year. See "-Passive Foreign Investment Company" below.

Subject to the various limitations and disallowance rules that apply to foreign tax credits generally (including a minimum holding period requirement), any PRC withholding taxes on dividends may be treated as foreign taxes eligible for credit against a United States Holder's United States federal income tax liability. For purposes of calculating the foreign tax credit, dividends paid on the ADSs or ordinary shares will be treated as income from sources outside the United States and will generally constitute passive category income. The rules governing the foreign tax credit are complex, and recently issued Treasury Regulations have introduced additional requirements and limitations to the foreign tax credit rules.

Each United States Holder should consult its tax advisors regarding the availability of the lower tax rates applicable to qualified dividend income for any dividends that we pay with respect to the ADSs or ordinary shares and the availability of any foreign tax credit, as well as the effect of any change in applicable law after the date of this annual report on Form 20-F.

Passive Foreign Investment Company

Based upon the market price of our ADSs, the value of our assets and the nature and composition of our income and assets, we do not believe that we were a PFIC for our taxable year ended December 31, 2024, although there can be no assurance in this regard. The IRS does not issue rulings with respect to PFIC status, and we cannot assure you that the IRS, or a court, will agree with any determination we make.

In general, we will be a PFIC for any taxable year if, after applying the applicable look-through rules, either:

- at least 75% of our gross income is passive income; or
- at least 50% of the value of our assets (generally determined based on an average of the quarterly asset values for such year) is attributable to assets that produce or are held for the production of passive income.

For this purpose, passive income generally includes dividends, interest, income equivalent to interest, royalties and rents (other than royalties and rents derived in the active conduct of a trade or business and not derived from a related person). Cash and cash equivalents, securities held for investment purposes and certain other similar assets are generally treated as an asset that produces or is held for the production of passive income. If we own at least 25% (by value) of the stock of another corporation, for purposes of determining whether we are a PFIC, we generally will be treated as owning our proportionate share of the other corporation's assets and receiving our proportionate share of the other corporation's income.

The determination of whether we are a PFIC is made annually. Accordingly, it is possible that we may become a PFIC in any future taxable year due to changes in our asset or income composition. Because we have valued our goodwill and other unbooked intangibles not reflected on our balance sheet based on the market value of the ADSs, a decrease in the price of the ADSs may also result in our becoming a PFIC. If we are a PFIC for any taxable year during which a United States Holder holds the ADSs or ordinary shares, such United States Holder will be subject to special tax rules discussed below.

If we are a PFIC for any taxable year during which a United States Holder holds the ADSs or ordinary shares, absent certain elections (including a mark-to-market election, a qualified electing fund election and a deemed sale election, each as described below), such United States Holder will be subject to special tax rules with respect to any “excess distribution” received and any gain realized from a sale or other disposition, including a pledge, of ADSs or ordinary shares. Distributions received in a taxable year will be treated as excess distributions to the extent that they are greater than 125% of the average annual distributions received during the shorter of the three preceding taxable years or a United States Holder’s holding period in our ADSs or ordinary shares. Under these special tax rules:

- the excess distribution and/or recognized gain will be allocated ratably over a United States Holder’s holding period for the ADSs or ordinary shares,
- the amount of the excess distribution and/or recognized gain allocated to the current taxable year, and any taxable year prior to the first taxable year in which we were a PFIC, will be treated as ordinary income, and
- the amount of the excess distribution and/or recognized gain allocated to each other taxable year will be subject to tax at the highest tax rate in effect for such year for individuals or corporations in the United States, as applicable, and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

The tax liability for amounts allocated to years prior to the year of disposition or excess distribution cannot be offset by any net operating losses for such years, and gains (but not losses) from a sale or other disposition of the ADSs or ordinary shares cannot be treated as capital gains, even if a United States Holder holds the ADSs or ordinary shares as capital assets.

If we are a PFIC with respect to a United States Holder for any taxable year during such United States Holder’s holding period for our ADSs or ordinary shares and any of our non-U.S. subsidiaries that are corporations (or other corporations in which we directly or indirectly own equity interests) is also a PFIC, such United States Holder would generally be treated as owning a proportionate amount (by value) of the shares of each such non-U.S. entity that is a PFIC (each such corporation, a lower tier PFIC) for purposes of the application of these rules. United States Holders are strongly encouraged to consult their tax advisors regarding the application of the PFIC rules to any of our lower tier PFICs.

Deemed Sale Election

If we are a PFIC for any taxable year in which a United States Holder holds the ADSs or ordinary shares (unless such United States Holder makes a valid mark-to-market election as discussed below), such United States Holder will generally be subject to the special tax rules described above for that year and for each subsequent year in which such United States Holder holds the ADSs or ordinary shares even if we cease to be a PFIC in such subsequent years. However, if we cease to be a PFIC, a United States Holder may avoid the continuing impact of the PFIC rules by making a “deemed sale” election to recognize gain as if such United States Holder’s ADSs or ordinary shares had been sold for their fair market value on the last day of the last taxable year during which we were a PFIC (“Shares Deemed Sold”) and any gain from such deemed sale would be taxed as an “excess distribution” as described above. Any loss from the deemed sale is not recognized. For purposes of applying the PFIC rules, a new holding period for the Shares Deemed Sold will start on the day after the date of the deemed sale. After the deemed sale election, the United States Holder’s ADSs or ordinary shares that are Shares Deemed Sold will not be treated as shares in a PFIC unless we become a PFIC in a subsequent taxable year. United States Holders are urged to consult their tax advisors about a deemed sale election.

Mark-to-Market Election

As an alternative to the foregoing rules, a United States Holder of “marketable stock” in a PFIC may make a mark-to-market election with respect to such stock, provided that certain requirements are met. Our ADSs or ordinary shares generally will be treated as marketable stock if the ADSs or ordinary shares are “regularly traded” on a “qualified exchange or other market” (within the meaning of the applicable Treasury regulations). Our ADSs are currently listed on the Nasdaq Global Market which constitutes a qualified exchange, although there can be no assurance that the ADSs will be “regularly traded” for purposes of the mark-to-market election. Only the ADSs and not the ordinary shares are listed on the Nasdaq Global Market. Consequently, if a United States Holder is a holder of our ordinary shares that are not represented by our ADSs, such United States Holder generally will not be eligible to make a mark-to-market election.

If a United States Holder makes an effective mark-to-market election with respect to the ADSs it holds, for each taxable year that we are a PFIC, such United States Holder will include as ordinary income the excess of the fair market value of such ADSs held at the end of the taxable year over such United States Holder's adjusted tax basis in such ADSs. A United States Holder will be entitled to deduct as an ordinary loss in each such taxable year the excess, if any, of its adjusted tax basis in the ADSs over the fair market value of such ADSs at the end of the taxable year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. A United States Holder's adjusted tax basis in the ADSs will be increased by the amount of any income inclusion and decreased by the amount of any deductions under the mark-to-market rules. In addition, upon the sale or other disposition of our ADSs in a year that we are a PFIC, any gain will be treated as ordinary income and any loss will be treated as ordinary loss, but only to the extent of the net amount of previously included income as a result of the mark-to-market election.

If a United States Holder makes a mark-to-market election with respect to the ADSs it holds, it will be effective for the taxable year for which the election is made and all subsequent taxable years unless such ADSs are no longer regularly traded on a qualified exchange or other market, or the Internal Revenue Service consents to the revocation of the election. If a United States Holder makes a valid mark-to-market election and we cease to be a PFIC, the United States Holder will not be required to take into account the mark-to-market gain or loss described above during any period for which we are not a PFIC. United States Holders are urged to consult their tax advisors about the availability of the mark-to-market election, and whether making the election would be advisable in light of such United States Holder's particular circumstances.

Qualified Election Fund Election

In certain circumstances, a shareholder in a PFIC may avoid some of the disadvantageous tax treatment described above by making a "qualified electing fund" election under Section 1295 of the Code. However, this option is not available to United States Holders because we do not intend to comply with the requirements necessary to permit United States Holders to make this election.

Reporting Requirements

For any taxable year for which we are a PFIC with respect to a United States Holder, such United States Holder will generally be required to file IRS Form 8621 regarding direct or indirect distributions received in respect of our ADSs or ordinary shares and any gain realized on the direct or indirect disposition of our ADSs or ordinary shares, and certain United States Holders will be required to file an annual information return (also on IRS Form 8621) relating to their ownership of our ADSs or ordinary shares. Significant penalties are imposed for failure to file such form. United States Holders are urged to consult their tax advisors concerning the United States federal income tax consequences of holding ADSs or ordinary shares if we are a PFIC in any taxable year.

Sale, Exchange or Other Taxable Disposition of our ADSs or Ordinary Shares

For United States federal income tax purposes, a United States Holder generally will recognize taxable gain or loss on any sale, exchange or other taxable disposition of the ADSs or ordinary shares in an amount equal to the difference between the amount realized for the ADSs or ordinary shares and the United States Holder's tax basis in such ADSs or ordinary shares. Subject to the discussion under "-Passive Foreign Investment Company" above, such gain or loss will generally be capital gain or loss and will generally be long-term capital gain or loss if such United States Holder has held such ADSs or ordinary shares for more than one year. Long-term capital gains of non-corporate United States Holders (including individuals) generally are eligible for reduced rates of taxation. The deductibility of capital losses may be subject to limitations. Any gain or loss recognized by a United States Holder will generally be treated as United States source gain or loss for foreign tax credit limitation purposes, which may limit the availability of foreign tax credits. However, if (i) we are treated as a PRC resident enterprise for PRC tax purposes and PRC tax were imposed on any gain and (ii) a United States Holder is eligible for the benefits of the Treaty, such United States Holder may elect to treat such gain as PRC source gain under the Treaty for foreign tax credit purposes, subject to certain limitations. If such an election is made, the gain so treated will be treated as a separate class or "basket" of income for foreign tax credit purposes. United States Holders should consult their tax advisors regarding the proper treatment of gain or loss, as well as the availability of a foreign tax credit, in their particular circumstances.

Information Reporting and Backup Withholding

In general, information reporting will apply to dividends in respect of the ADSs or our ordinary shares and the proceeds from the sale, exchange or other disposition of the ADSs or our ordinary shares that are paid to a United States Holder within the United States (and in certain cases, outside the United States), unless a United States Holder is an exempt recipient. A backup withholding tax may apply to such payments if a United States Holder fails to provide a taxpayer identification number or certification of exempt status or fails to report in full dividend and interest income.

Backup withholding is not an additional tax and any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a United States Holder's United States federal income tax liability provided the required information is timely furnished to the IRS.

Specified Foreign Financial Assets

United States Holders who are individuals and certain domestic entities generally will be required to submit certain information to the IRS with respect to their beneficial ownership of our ADSs or ordinary shares as is necessary to identify the class or issue of which our ADSs or ordinary shares are a part. These requirements are subject to exceptions, including an exception for ADSs or ordinary shares held in accounts maintained by certain financial institutions and an exception applicable if the aggregate value of all "specified foreign financial assets" (as defined in the Code) does not exceed US\$50,000. This law also imposes penalties if a United States Holder is required to submit such information to the IRS and fails to do so. United States Holders are urged to consult their tax advisors regarding the potential reporting requirements that may be imposed with respect to ownership of our ADSs or ordinary shares.

Singapore Taxation

The following discussion is a summary of Singapore income tax, goods and services tax ("GST") and stamp duty considerations relevant to the acquisition, ownership and disposition of our ADSs or ordinary shares.

The statements made herein regarding taxation are general in nature and based upon certain aspects of the current tax laws of Singapore and administrative guidelines issued by the relevant authorities in force as of the date hereof and are subject to any changes in such laws or administrative guidelines or the interpretation of such laws or guidelines occurring after such date, which changes could be made on a retrospective basis. The statements made herein do not purport to be a comprehensive or exhaustive description of all of the tax considerations that may be relevant to a decision to acquire, own or dispose of our ADSs or ordinary shares and do not purport to deal with the tax consequences applicable to all categories of investors, some of which (such as dealers in securities) may be subject to special rules. Prospective shareholders are advised to consult their own tax advisers as to the Singapore or other tax consequences of the acquisition, ownership of or disposal of our ADSs or ordinary shares, taking into account their own particular circumstances. The statements below are based upon the assumption that the company is not a tax resident in Singapore for Singapore income tax purposes and the company (including its subsidiaries) do not own any Singapore residential properties. It is emphasized that neither the company, our counsels, nor any other persons involved in this registration statement accepts responsibility for any tax effects or liabilities resulting from the acquisition, holding or disposal of our ADSs or ordinary shares.

Income Taxation Under Singapore Law

Under the Singapore Income Tax Act, a company is tax resident in Singapore if the control and management of its business is exercised in Singapore. The Inland Revenue Authority of Singapore ("IRAS") has provided guidance that "control and management" refers to the making of decisions on strategic matters, such as those concerning the company's policy and strategy. Usually, the location of the company's Board of Director's meetings where strategic decisions are made determines where the control and management is exercised.

Where the company is established outside Singapore, and the control and management of its business is exercised outside Singapore, it would not be a Singapore tax resident for Singapore income tax purposes. The statements below are based on the assumption that Canaan Inc. is not tax resident in Singapore for Singapore income tax purposes.

Dividends with Respect to our ADSs or ordinary shares

On the basis that Canaan Inc. is not tax resident in Singapore for Singapore income tax purposes, dividends paid by Canaan Inc. on our ADSs or ordinary shares should generally be considered as sourced outside Singapore (unless our ADSs or ordinary shares are held as part of a trade or business carried out in Singapore, in which case the holders of our ADSs or our ordinary shares may be taxed on the dividends as they are derived).

Foreign-sourced dividends received or deemed received in Singapore by an individual not resident in Singapore would be exempt from Singapore income tax. This exemption will also apply in the case of a Singapore tax resident individual who receives such foreign-sourced income in Singapore (except where such income is received through a partnership in Singapore).

Foreign-sourced dividends received or deemed to be received in Singapore by corporate investors who do not have a business presence in Singapore, are not tax resident in Singapore, and who do not have a permanent establishment or tax presence in Singapore, will generally not be subject to income tax in Singapore.

Foreign-sourced dividends received or deemed to be received in Singapore by corporate investors who are tax residents in Singapore will generally be subject to Singapore income tax. Since Canaan Inc. is a company incorporated in the Cayman Islands, and the prevailing rate of tax in the Cayman Islands, being a tax of a similar character to the Singapore income tax, is 0%, dividends received in Singapore by resident corporate investors should generally be subject to Singapore income tax at the prevailing rate of 17%, unless the prescribed conditions for the exemption under section 13(12) of the Income Tax Act are met. Our corporate shareholders should consult their own accounting and tax advisers regarding the Singapore income tax consequences governing the receipt and taxability of foreign-sourced dividends in Singapore.

Capital Gains upon Disposition of our ADSs or ordinary shares

Under current Singapore tax laws, there is no tax on capital gains (save for gains on the disposal of foreign assets – see discussion on Section 10L under the Income Tax Act below). There are no specific laws or regulations which deal with the characterization of whether a gain is income or capital in nature. Gains arising from the disposal of our ADSs or ordinary shares may be construed to be of an income nature and subject to Singapore income tax, if they arise from activities which may be regarded as the carrying on of a trade or business in Singapore. Such gains, even if they do not arise from an activity in the ordinary course of trade or business or from an ordinary incident of some other business activity, may also be considered gains or profits of an income nature if the investor had the intention or purpose of making a profit by sale at the time of acquisition of our ADSs or ordinary shares.

Subject to specified exceptions, under Singapore tax laws, there is presently a safe harbor rule where any gains derived by a divesting company from its disposal of ordinary shares in an investee company between 1 June 2012 and 31 December 2027 are generally exempt from tax if immediately prior to the date of the relevant disposal, the divesting company has held at least 20% of the ordinary shares in the investee company for a continuous period of at least 24 months (“Shareholding Threshold Condition”). The safe harbor rule is only applicable if the divesting company, at the time of lodgment of its income tax return in Singapore relating to the period in which the disposal of ordinary shares occurred, provides such information and documentation as may be specified by the IRAS. It has since been announced by the Singapore Ministry of Finance during the Singapore Budget Speech 2025 that from 1 January 2026, the following changes would be made to the safe harbor rule in Singapore: (i) the sunset date of 31 December 2027 would be removed, (ii) the scope of eligible gains would be expanded to include gains from the disposal of preference shares that are accounted for as equity the by investee company under the applicable accounting principles, and (iii) allowing the assessment of the Shareholding Threshold Condition to be done on a group basis. IRAS is expected to provide more details on this by 30 September 2025.

For corporate shareholders who are subject to Singapore income tax treatment under Section 34A or 34AA of the Singapore Income Tax Act in relation to the adoption of Singapore Financial Reporting Standard 39 — Financial Instruments: Recognition and Measurement (FRS 39) or Singapore Financial Reporting Standard 109 — Financial Instruments (FRS 109), for accounting purposes, they may be required to recognize gains or losses (not being gains or losses in the nature of capital) even though no sale or disposal of our ADSs or ordinary shares has been made. Corporate shareholders who may be subject to such provisions should consult their own accounting and tax advisers regarding the Singapore income tax consequences of their acquisition, ownership and disposition of our ADSs or ordinary shares arising from the adoption of FRS 39 or FRS 109.

Notwithstanding the above, foreign investors may claim that the gains from disposition of their ADSs or ordinary shares are not sourced or received in Singapore (so that such gains will not be subject to Singapore income tax) if the foreign investor is not a tax resident in Singapore, (ii) the foreign investor does not maintain a permanent establishment in Singapore, to which the disposition gains may be effectively connected, and (iii) the entire process (including the negotiation, deliberation, execution of the acquisition and sale, etc.) leading up to the actual acquisition and sale of the ADSs or ordinary shares is performed outside of Singapore. Under section 10L of the Singapore Income Tax Act, gains from the sale or disposal by an entity of a relevant group (hereinafter referred to as a “seller entity”) of any movable or immovable property situated outside Singapore at the time of such sale or disposal (hereinafter referred to as a “foreign asset”), and received in Singapore from outside Singapore on or after 1 January 2024 will be treated as income chargeable to income tax under specific circumstances including where such gains are derived by a seller entity without adequate economic substance in Singapore. A foreign asset includes any shares issued by a company which is incorporated outside Singapore. Our ADSs or ordinary shares should be regarded as a “foreign asset” under section 10L. A seller entity which may be subject to the new section 10L should consult their own tax advisers regarding the Singapore tax consequences of the sale or disposal of the ADSs or ordinary shares arising from the introduction of section 10L.

Goods and Services Tax

Issuance and transfer of the ADSs or ordinary shares to investors belonging in Singapore is exempt from GST and to investors belonging outside Singapore is zero-rated (i.e. charged at 0% GST). Consequently, investors should not incur any GST on the subscription of our ADSs or ordinary shares. The subsequent disposal of the ADSs or ordinary shares by investors is similarly exempt from GST or zero-rated, as the case may be. Investors should seek their own tax advice on the recoverability of GST incurred on expenses in connection with the purchase and sale of our ADSs or our ordinary shares.

Services such as brokerage and handling services rendered by a GST-registered person to an investor belonging in Singapore in connection with the investor’s purchase or transfer of the ADSs or ordinary shares will be subject to GST at the prevailing standard-rate (currently at 9.0%). Similar services rendered contractually to and directly for the benefit of an investor belonging outside Singapore should be zero-rated (i.e. charged at 0% GST) provided that the investor is not physically present in Singapore at the time the services are performed.

Stamp Duty

No stamp duty is payable on the subscription and issuance of our ADSs or our ordinary shares. As Canaan Inc. is incorporated in the Cayman Islands, no stamp duty is payable in Singapore on any instrument of transfer upon a sale or gift of our ADSs or our ordinary shares unless Canaan Inc. maintains a stock register kept in Singapore. This position would remain as long as Canaan Inc. is not considered a residential property-holding entity.

Tax Treaties regarding Withholding Taxes

There is no comprehensive avoidance of double taxation agreement between the United States and Singapore.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We have filed this annual report on Form 20-F, including exhibits, with the SEC. As allowed by the SEC, in Item 19 of this annual report, we incorporate by reference certain information we filed with the SEC. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be part of this annual report.

You may read and copy this annual report, including the exhibits incorporated by reference in this annual report, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 and at the SEC's regional offices in New York, New York and Chicago, Illinois. You also can request copies of this annual report, including the exhibits incorporated by reference in this annual report, upon payment of a duplicating fee, by writing information on the operation of the SEC's Public Reference Room.

The SEC also maintains a website at www.sec.gov that contains reports, proxy statements and other information regarding registrants that file electronically with the SEC. Our annual report and some of the other information submitted by us to the SEC may be accessed through this website.

As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

Our financial statements have been prepared in accordance with U.S. GAAP.

We will furnish our shareholders with annual reports, which will include a review of operations and annual audited consolidated financial statements prepared in conformity with U.S. GAAP.

I. Subsidiary Information

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Exchange Risk

A significant portion of our revenues and substantially all of our expenses are denominated in Renminbi. The functional currency of our company and our Hong Kong subsidiary is the U.S. dollar. The functional currency of our subsidiaries in the PRC is the Renminbi. We used Renminbi as our reporting currency. Starting from January 1, 2023, we changed our reporting currency from Renminbi to U.S. dollar. Monetary assets and liabilities denominated in currencies other than the functional currency are translated into the functional currency at the applicable rates of exchange at the balance sheet date. Transactions in currencies other than the functional currency during the year are converted into functional currency at the applicable rates of exchange prevailing when the transactions occurred. Transaction gains and losses are recognized in the statements of operations.

We do not believe that we currently have any significant direct foreign exchange risk and have not used any derivative financial instruments to hedge exposure to such risk. Although in general our exposure to foreign exchange risks should be limited, the value of your investment in the ADSs will be affected by the exchange rate between the U.S. dollars and the Renminbi because the value of our business is effectively denominated in Renminbi, while the ADSs will be traded in U.S. dollars.

The conversion of Renminbi into foreign currencies, including U.S. dollars, is based on rates set by the PBOC. With the development of the foreign exchange market and progress towards interest rate liberalization and Renminbi internationalization, the PRC government may in the future announce further changes to the exchange rate system, and we cannot assure you that the Renminbi will not appreciate or depreciate significantly in value against the U.S. dollars in the future. It is difficult to predict how market forces or PRC or U.S. government policy may impact the exchange rate between the Renminbi and the U.S. dollars in the future.

To the extent that we need to convert U.S. dollars into Renminbi for our operations, appreciation of the Renminbi against the U.S. dollars would have an adverse effect on the Renminbi amount we receive from the conversion. Conversely, if we decide to convert Renminbi into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or ADSs or for other business purposes, appreciation of the U.S. dollars against the Renminbi would have a negative effect on the U.S. dollars amounts available to us.

Interest Rate Risk

We have not been exposed to material risks due to changes in market interest rates, and we have not used any derivative financial instruments to manage our interest risk exposure. However, we cannot provide assurance that we will not be exposed to material risks due to changes in market interest rates in the future.

After the completion of our initial public offering, we may invest the net proceeds we receive from the offering in interest-earning instruments. Investments in both fixed rate and floating rate interest earning instruments carry a degree of interest rate risk. The fair market value of fixed rate securities may be adversely impacted due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall.

Credit Risk

Financial instruments that potentially expose us to concentrations of credit risk consist primarily of cash and cash equivalents, short-term investments and accounts receivable. We place our cash and cash equivalents with financial institutions with high credit ratings and quality.

We conduct credit evaluations of customers, and generally do not require collateral or other security from our customers. We establish an allowance for doubtful accounts primarily based upon the age of the receivables and factors surrounding the credit risk of specific customers.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

A. Debt Securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other Securities

Not applicable.

D. American Depositary Shares

The Bank of New York Mellon, as depositary, registered and delivered American Depositary Shares, also referred to as ADSs. Each ADS will represent 15 Class A ordinary shares (or a right to receive 15 Class A ordinary shares) deposited with The Hong Kong and Shanghai Banking Corporation Limited, as custodian for the depositary in Hong Kong. Each ADS will also represent any other securities, cash or other property that may be held by the depositary. The deposited shares together with any other securities, cash or other property held by the depositary are referred to as the deposited securities. The depositary's office at which the ADSs will be administered and its principal executive office is located at 240 Greenwich Street, New York, New York 10286.

Fees and Expenses

Persons depositing or withdrawing shares or ADS holders must pay:	For:
\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property
	Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates
\$.05 (or less) per ADS	Any cash distribution to ADS holders
A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs	Distribution of securities distributed to holders of deposited securities (including rights) that are distributed by the depositary to ADS holders
\$.05 (or less) per ADS per calendar year	Depositary services
Registration or transfer fees	Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares
Expenses of the depositary	Cable (including SWIFT) and facsimile transmissions (when expressly provided in the deposit agreement) Converting foreign currency to U.S. dollars
Taxes and other governmental charges the depositary or the custodian has to pay on any ADSs or shares underlying ADSs, such as stock transfer taxes, stamp duty or withholding taxes	As necessary
Any charges incurred by the depositary or its agents for servicing the deposited securities	As necessary

The depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may collect its annual fee for depositary services by deduction from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The depositary may collect any of its fees by deduction from any cash distribution payable (or by selling a portion of securities or other property distributable) to ADS holders that are obligated to pay those fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

From time to time, the depositary may make payments to us to reimburse us for costs and expenses generally arising out of establishment and maintenance of the ADS program, waive fees and expenses for services provided to us by the depositary or share revenue from the fees collected from ADS holders. In performing its duties under the deposit agreement, the depositary may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the depositary and that may earn or share fees, spreads or commissions.

The depositary may convert currency itself or through any of its affiliates and, in those cases, acts as principal for its own account and not as agent, advisor, broker or fiduciary on behalf of any other person and earns revenue, including, without limitation, transaction spreads, that it will retain for its own account. The revenue is based on, among other things, the difference between the exchange rate assigned to the currency conversion made under the deposit agreement and the rate that the depositary or its affiliate receives when buying or selling foreign currency for its own account. The depositary makes no representation that the exchange rate used or obtained in any currency conversion under the deposit agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to ADS holders, subject to the depositary's obligations under the deposit agreement. The methodology used to determine exchange rates used in currency conversions is available upon request.

Payments by Depositary

In 2024, we did not received any payments from The Bank of New York Mellon, the depositary bank for our ADR program.

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

None.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

None.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized and reported within the specified time periods and accumulated and communicated to our management, including our principal executive officer and principal accounting officer, as appropriate, to allow timely decisions regarding required disclosure.

Our management, with the participation of our chief executive officer and chief financial officer, has performed an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of the end of the period covered by this report, as required by Rule 13a-15(b) under the Exchange Act.

Based upon that evaluation, our management has concluded that, as of December 31, 2024, our disclosure controls and procedures are effective in ensuring that material information required to be disclosed in this annual report is recorded, processed, summarized and reported to them for assessment, and required disclosure is made within the time period specified in the rules and forms of the SEC.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such item is defined in Rules 13a-15(f) under the Exchange Act, for our company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements in accordance with generally accepted accounting principles and includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of a company's assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with generally accepted accounting principles, and that a company's receipts and expenditures are being made only in accordance with authorizations of a company's management and directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of a company's assets that could have a material effect on the consolidated financial statements.

As required by Rule 13a-15(c) of the Exchange Act, our management conducted an evaluation of our company's internal control over financial reporting as of December 31, 2024 based on the framework in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded that as of December 31, 2024, our internal control over financial reporting was effective.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Attestation Report of the Independent Registered Public Accounting Firm

Our independent registered public accounting firm, KPMG Huazhen LLP, has audited the effectiveness of our internal control over financial reporting as of December 31, 2024, as stated in its report, which appears on page F-2 of this annual report.

Changes in Internal Control over Financial Reporting

There were no changes in our internal controls over financial reporting that occurred during the period covered by this annual report on Form 20-F that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our Board of Directors has determined that Yaping Zhang, who is an independent director, qualifies as an audit committee financial expert as defined in Item 16A of the instruction to Form 20-F.

ITEM 16B. CODE OF ETHICS

We have adopted a code of business conduct and ethics, which applies to our directors, officers and employees. No changes have been made to the code of business conduct and ethics since its adoption and no waivers have been granted therefrom to our directors or employees. We have filed our code of business conduct as an exhibit to our registration statement on Form F-1, initially filed with the Securities and Exchange Commission on October 28, 2019 (File No. 333-234356), and a copy is available to any shareholder upon request. This code of business conduct and ethics is also available on our website at <http://investor.canaan-creative.com>.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

KPMG Huazhen LLP, an independent registered public accounting firm, has audited our annual financial statements acting as our independent auditor for the fiscal years ended December 31, 2023 and 2024.

The chart below sets forth the amount billed and those expected to be billed for KPMG Huazhen LLP relating to the audit of the consolidated financial statements and other professional services in 2023 and 2024, respectively, and breaks down these amounts by the category of service. The fees paid to our principal accountant were approved in accordance with the pre-approval policies and procedures described below.

	For the Years Ended December 31,	
	2023	2024
	(In thousands of US\$)	
Audit Fees ⁽¹⁾		
KPMG Huazhen LLP	1,803	1,899
Tax Fees ⁽²⁾	19	32
Total	1,822	1,931

- (1) "Audit Fees" represents the aggregate fees billed and those expected to be billed for each of the fiscal years listed for professional services rendered by our principal accountant for the audit of our annual financial statements and assistance with and review of documents filed with the SEC and other statutory and regulatory filings.
- (2) "Tax Fees" represents the aggregate fees billed for each of the fiscal years listed for professional services rendered by our principal accountant for tax compliance, tax advice and tax planning.

Pre-Approval Policies and Procedures

Our audit committee is responsible for the oversight of our independent accountants' work. The policy of our audit committee is to pre-approve all audit and non-audit services provided by KPMG Huazhen LLP, including audit services as described above, other than those for de minimis services which are approved by the audit committee prior to the completion of the audit.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

None.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

The following table sets forth information about our purchases of outstanding ADSs from September 22, 2020 to March 31, 2025:

Period	Total Number of ADSs Purchased	Average Price Paid per ADS ⁽¹⁾	Total Number of ADSs Purchased as Part of Publicly Announced Plans or Programs ⁽²⁾	Approximate Dollar Value of ADSs that May Yet Be Purchased Under the Program ⁽²⁾
September 8, 2020 through September 21, 2020	—	—	—	US\$ 10.0 million
September 22, 2020 through September 30, 2020	99,983	US\$ 1.9382	99,983	US\$ 9.8 million
October 2020	1,059,960	US\$ 1.9506	1,159,943	US\$ 7.7 million
November 2020 through March 31, 2021	560,003	US\$ 2.3369	1,719,946	US\$ 6.4 million
March 31, 2021 through September 30, 2021	875,868	US\$ 7.3322	2,595,814	US\$ 20.0 million
September 30, 2021 through March 31, 2022	3,578,877	US\$ 5.5864	6,174,691	US\$ 100.0 million
March 31, 2022 through September 30, 2022	4,679,620	US\$ 3.5451	10,854,311	US\$ 83.4 million
September 30, 2022 through March 31, 2025	3,485,515	US\$ 3.0068	14,339,826	US\$ 72.9 million
Total	14,339,826	US\$ 3.9788	14,339,826	US\$ 72.9 million

(1) Each of our ADSs represents 15 Class A ordinary shares.

(2) We announced a share repurchase program approved by our board of directors on September 8, 2020, under which we may repurchase up to US\$10 million worth of our outstanding ADSs and/or Class A ordinary shares over a period of twelve months. In addition, we announced a new share repurchase program approved by our board of directors on September 20, 2021, under which we may repurchase up to US\$20 million worth of our outstanding ADSs and/or Class A ordinary shares over a period of twelve months. On March 16, 2022, we announced another share repurchase program approved by our board of directors, under which we may repurchase up to US\$100 million worth of our outstanding ADSs and/or Class A ordinary shares over a period of twenty-four months. The repurchases have been through various means, including open market transactions at prevailing market prices, privately negotiated transactions, block trades or any combination thereof. The repurchases have been, and will be, effected in compliance with Rule 10b5-1 and/or Rule 10b-18 under the Exchange Act, and our insider trading policy. The number of ADSs repurchased and the timing of repurchases depends on a number of factors, including, but not limited to, price, trading volume and general market conditions, along with our working capital requirements and general business conditions. As of the date of this annual report, our repurchase under the abovementioned share repurchase programs has come to an end.

ITEM 16F. CHANGE IN REGISTRANT’S CERTIFYING ACCOUNTANT

Not applicable.

ITEM 16G. CORPORATE GOVERNANCE

We are a “foreign private issuer” (as such term is defined in Rule 3b-4 under the Exchange Act), and our ADSs, each representing 15 Class A ordinary shares, are listed on the Nasdaq Global Market. Nasdaq Stock Market Rules permit a foreign private issuer like us to follow the corporate governance practices of its home country. Certain corporate governance practices in the Cayman Islands, which is our home country, may differ significantly from the Nasdaq corporate governance listing standards. For instance, we are not required to:

- have the majority of our board of directors composed of independent directors (although all of the members of the audit committee must be independent under the Exchange Act);
- have a compensation committee or a nominations or corporate governance committee consisting entirely of independent directors;

- establish a nominating and corporate governance committee that is composed entirely of independent directors and have a written charter addressing the committee’s purpose and responsibilities; and
- hold an annual meeting of shareholders no later than one year after the end of the issuer’s fiscal year-end.

We currently rely on home country practice exemption with respect to the requirement of (i) having a nominating committee composed entirely of independent directors, (ii) having a compensation committee composed entirely of independent directors and (iii) holding an annual meeting of shareholders no later than one year after the end of the issuer’s fiscal year-end.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

ITEM 16J. INSIDER TRADING POLICIES

Our board of directors has established insider trading policies and procedures to provide guidance on the purchases, sales, and other dispositions of our securities by our directors, officers, employees, and consultants, with the goal of promoting compliance with applicable laws, listing rules, and regulations relating to insider trading.

The Insider Trading Policy is filed as Exhibit 11.2 to this annual report on Form 20-F.

ITEM 16K. CYBERSECURITY

Risk Management and Strategy

We have implemented comprehensive cybersecurity risk assessment processes to ensure effectiveness in cybersecurity management, strategy and governance and reporting cybersecurity risks. We have also integrated cybersecurity risk management into our overall enterprise risk management system.

We have developed a cybersecurity threat defense system and processes to address both internal and external threats. This system covers all aspects and levels of our security framework and is designed to identify, analyze and respond to cybersecurity threats. We strive to continuously assess, identify and manage cybersecurity risks and protect information assets internally and with outside vendors. We maintain an incident response program, business continuity plan and disaster recovery plan. Our cybersecurity team continuously monitors the status of our systems, infrastructure and processes to enable us to respond quickly to potential problems, including potential cybersecurity threats.

Our business strategy, results of operations and financial condition have not been materially affected by risks from cybersecurity threats, including as a result of previously identified cybersecurity incidents, but we cannot provide assurance that they will not be materially affected in the future by such risks or any future material incidents. For more information on our cybersecurity related risks, see “Item 3. Key Information—D. Risk Factors” of this annual report on Form 20-F.

Governance

Our board of directors is responsible for overseeing risks related to cybersecurity. Periodic reviews are held to discuss the landscape of cybersecurity, potential threats, and our preparedness for potential cybersecurity threats and risks to our company. Our cybersecurity team, whose members hold relevant certifications, including CISSP, CISM, and CDPSE, is primarily responsible for assessing and managing cybersecurity risks and monitoring the prevention, detection, mitigation, and remediation of cybersecurity incidents. Our board is informed about our prevention, detection, mitigation, and remediation processes for cybersecurity incidents, and, should they arise, any material cybersecurity incidents.

PART II

ITEM 17. FINANCIAL STATEMENTS

The Registrant has elected to provide the financial statements and related information specified in Item 18.

ITEM 18. FINANCIAL STATEMENTS

The consolidated financial statements of Canaan Inc. are included at the end of this annual report.

ITEM 19. EXHIBITS

Exhibit Number	Description of Exhibits
1.1	Amended and Restated Memorandum and Articles of Association of the Registrant (incorporated by reference to Exhibit 3.2 to Canaan Inc.'s Registration Statement on Form F-1 (File No. 333-234356), initially filed with the Securities and Exchange Commission on October 28, 2019).
2.1	Deposit Agreement between the Registrant and The Bank of New York Mellon, as depository (incorporated by reference to Exhibit 2.1 to our annual report on Form 20-F for the year ended December 31, 2019 (File No. 001-39127), filed with the Securities and Exchange Commission on April 15, 2020)
2.2	Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934 (the "Exchange Act") (incorporated by reference to Exhibit 2.2 to Canaan Inc.'s annual report on Form 20-F (File No. 001-39127), filed with the Securities and Exchange Commission on April 15, 2020)
4.1	Amended and Restated 2018 Share Incentive Plan (incorporated by reference to Exhibit 4.1 of our Annual Report on Form 20-F filed with the Securities and Exchange Commission on April 21, 2021)
*4.2	Form of Indemnification Agreement between the Registrant and its directors and executive officers
4.3	Form of Executive Employment Agreement between the Registrant and its executive officers (incorporated herein by reference to Exhibit 10.3 to the registration statement on Form F-1 (File No. 333-234356), as amended, initially filed with the Securities and Exchange Commission on October 28, 2019)
4.4	Form of Securities Purchase Agreement dated April 29, 2021 by and between the Company and the purchasers identified on the signature pages thereto (incorporated by reference to Exhibit 10.2 to Canaan Inc.'s Current Report on Form 6-K (Reg. No. 001-39127) furnished on April 30, 2021)
4.5	Form of Warrant to be issued to the purchasers under the Securities Purchase Agreement (incorporated by reference to Exhibit 4.5 to Canaan Inc.'s Current Report on Form 6-K (Reg. No. 001-39127) furnished on April 30, 2021)
4.6	Form of Sales Agreement dated December 23, 2024 by and between the Company and the sales agents identified on the signature pages thereto (incorporated by reference to Exhibit 1.1 to Canaan Inc.'s Current Report on Form 6 - K (Reg. No. 001-39127) furnished on December 23, 2024)
4.7	Form of Sales Agreement dated March 6, 2025 by and between the Company and an institutional investor (incorporated by reference to Exhibit 10.1 to Canaan Inc.'s Current Report on Form 6 - K (Reg. No. 001-39127) furnished on March 10, 2025)
8.1	List of Principal Subsidiaries (incorporated by reference to Exhibit 8.1 to the annual report on Form 20-F (File No. 001-39127), filed with the Securities and Exchange Commission on April 17, 2024)
11.1	Code of Business Conduct of the Registrant (incorporated by reference to Exhibit 99.1 to Canaan Inc.'s Registration Statement on Form F-1 (File No. 333-234356), initially filed with the Securities and Exchange Commission on October 28, 2019)
*11.2	Insider Trading Policy
*12.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
*12.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
**13.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
**13.2	Certification of Chief Financial Officer pursuant to 18 U.S.C Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
*15.1	Consent of Commerce & Finance Law Offices
*15.2	Consent of KPMG Huazhen LLP
97.1	Clawback Policy of the Registrant (incorporated by reference to Exhibit 97.1 to the annual report on Form 20-F (File No. 001-39127), filed with the Securities and Exchange Commission on April 17, 2024)
*101.INS	Inline XBRL Instance Document—this instance document does not appear on the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
*101.SCH	Inline XBRL Taxonomy Extension Schema Document
*101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
*101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
*101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
*101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith

** Furnished herewith

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Canaan Inc.

By: /s/ Nangeng Zhang

Name: Nangeng Zhang

Title: Chairman and Chief Executive Officer

Date: April 18, 2025

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Canaan Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Canaan Inc. and subsidiaries (the Company) as of December 31, 2024 and 2023, the related consolidated statements of comprehensive income (loss), changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2024, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2024, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024 based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Change in Accounting Principle

As discussed in Note 2(j) to the consolidated financial statements, the Company has changed its method of accounting for cryptocurrency as of January 1, 2024 due to the adoption of Accounting Standards Update (“ASU”) No. 2023-08, Intangibles - Goodwill and Other - Crypto Assets (Topic 350-60): Accounting for and Disclosure of Crypto Assets (“ASU 2023-08”).

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Sufficiency of audit evidence on evaluating the timing of revenue recognition for products sales

As discussed in Note 2(r) to the consolidated financial statements, the Company recorded USD223,233 thousand of products revenue for the year ended December 31, 2024, which related to sale of mining equipment. The Company recognizes products revenue when the control of the products has been transferred to customers.

We identified the sufficiency of audit evidence on evaluating the timing of revenue recognition for products sales as a critical audit matter. Significant audit effort was required to determine the nature and extent of procedures to perform to evaluate the timing of transfer of control to customers that impact the timing of revenue recognition.

The following are the primary procedures we performed to address this critical audit matter. We applied auditor judgment to determine the nature and extent of procedures to be performed over the evaluation of timing of revenue recognition for products sales. We evaluated the design and tested the operating effectiveness of certain internal controls related to timing of revenue recognition for products sales. This included controls over the Company's review of underlying contracts, shipping and delivery documents, and the timing of recording revenues. For a sample of product sales transactions, we evaluated the timing of revenue recognized by (1) examining the underlying contracts to evaluate the impact of the terms and conditions on the timing of revenue recognition; and (2) comparing the timing of revenue recognized by the Company with the timing of transfer of control from underlying contracts, shipping and delivery documents. For a sample of customers, we independently sent confirmations to confirm the customer acceptance terms, and the accuracy and occurrence of revenue transactions recorded during the last month of the year, and traced to underlying contracts, shipping and delivery documents for the unreturned confirmations. In addition, we evaluated the sufficiency of audit evidence obtained by assessing the results of procedures performed, including the appropriateness of the nature and extent of such evidence.

/s/ KPMG Huazhen LLP

We have served as the Company's auditor since 2021.

Beijing, China
April 18, 2025

CANAAN INC.
CONSOLIDATED BALANCE SHEETS
As of December 31, 2023 and 2024
(all amounts in thousands, except share and per share data, or as otherwise noted)

	Note	As of December 31,	
		2023 US\$	2024 US\$
ASSETS			
Current assets:			
Cash	2(g)	96,154	96,488
Accounts receivable, net		2,997	1,514
Inventories	4	142,287	94,620
Prepayments and other current assets	5	122,242	90,874
Cryptocurrency receivable, current	7	—	50,525
Total current assets		363,680	334,021
Non-current assets:			
Cryptocurrency	6	28,342	61,821
Cryptocurrency receivable, non-current	7	—	19,057
Property, equipment and software, net	8	29,466	40,163
Intangible assets		—	901
Operating lease right-of-use assets	9	1,690	3,495
Deferred tax assets	18	66,809	295
Other non-current assets		486	476
Non-current financial investment		2,824	2,782
Total non-current assets		129,617	128,990
Total assets		493,297	463,011
LIABILITIES AND SHAREHOLDERS' EQUITY			
Current liabilities:			
Current portion of long-term loans	11	—	16,658
Accounts payable		6,245	13,975
Contract liabilities	2(o)	19,614	24,248
Income tax payable		3,534	10,932
Accrued liabilities and other current liabilities	10	64,240	43,406
Operating lease liabilities, current	9	1,216	1,237
Preferred shares forward contract liability	15	40,344	—
Convertible preferred shares	15	—	68,113
Total current liabilities		135,193	178,569
Non-current liabilities:			
Long-term loans	11	—	7,279
Operating lease liabilities, non-current	9	210	1,701
Deferred tax liability	18	—	153
Other non-current liabilities	10	9,707	9,055
Total liabilities		145,110	196,757
Contingencies (Note 20)		—	—

The accompanying notes are an integral part of these consolidated financial statements.

CANAAN INC.
CONSOLIDATED BALANCE SHEETS (CONTINUED)
As of December 31, 2023 and 2024
(all amounts in thousands, except share and per share data, or as otherwise noted)

	Note	<u>As of December 31,</u>	
		<u>2023</u>	<u>2024</u>
		US\$	US\$
Shareholders' equity:			
Ordinary shares (US\$0.00000005 par value; 999,999,875,000 and 999,999,675,000 shares authorized, 3,772,078,667 and 5,593,444,487 shares issued, 3,514,973,327 and 4,614,163,022 shares outstanding as of December 31, 2023 and December 31, 2024, respectively)	14	—	—
Subscriptions receivable from shareholders		—	—
Treasury stocks (US\$0.00000005 par value; 257,105,340 and 229,281,465 shares as of December 31, 2023 and 2024, respectively)	16	(57,055)	(57,055)
Additional paid-in capital		653,860	816,363
Statutory reserves		14,892	14,892
Accumulated other comprehensive loss		(43,879)	(57,456)
Accumulated deficit		(219,631)	(450,490)
Total shareholders' equity		<u>348,187</u>	<u>266,254</u>
Total liabilities and shareholders' equity		<u>493,297</u>	<u>463,011</u>

The accompanying notes are an integral part of these consolidated financial statements.

CANAAN INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
For the Years Ended December 31, 2022, 2023 and 2024
(all amounts in thousands, except share and per share data, or as otherwise noted)

	Note	For the years ended December 31,		
		2022	2023	2024
		US\$	US\$	US\$
Revenues				
Products revenue		618,890	176,898	223,233
Mining revenue		32,530	33,957	44,022
Other revenues		106	622	2,069
Total revenues		651,526	211,477	269,324
Cost of revenues				
Product cost		(366,474)	(368,116)	(301,258)
Mining cost		(54,542)	(81,833)	(51,569)
Other cost		(223)	(2,308)	(817)
Total cost of revenues		(421,239)	(452,257)	(353,644)
Gross profit (loss)		230,287	(240,780)	(84,320)
Operating expenses:				
Research and development expenses		(81,755)	(64,845)	(61,323)
Sales and marketing expenses		(9,413)	(8,175)	(5,708)
General and administrative expenses		(88,302)	(71,249)	(71,691)
Impairment on property, equipment and software	8	—	(21,126)	(11,303)
Impairment on cryptocurrency	2(j)	(7,880)	(4,706)	—
Gain on disposal of property, equipment and software		—	—	7,215
Total operating expenses		(187,350)	(170,101)	(142,810)
Income (loss) from operations		42,937	(410,881)	(227,130)
Interest income		2,372	956	536
Interest expense		—	—	(521)
Change in fair value of cryptocurrency		—	—	42,427
Change in fair value of financial instruments other than derivatives	13,15	3,795	(10,918)	20,571
Change in fair value of financial derivatives	12	—	—	17,606
Excess of fair value of convertible preferred shares	15	—	(59,199)	(50,725)
Foreign exchange gains, net		35,935	12,309	14,135
Other income, net		3,295	2,240	10,832
Income (loss) before income tax expense		88,334	(465,493)	(172,269)
Income tax (expense) benefit	18	(18,450)	51,340	(77,483)
Net income (loss)		69,884	(414,153)	(249,752)
Foreign currency translation adjustment, net of nil tax		(36,267)	(6,966)	(13,577)
Total comprehensive income (loss)		33,617	(421,119)	(263,329)
Weighted average number of shares used in per Class A and Class B ordinary share calculation:				
— Basic	19	2,560,106,403	2,579,202,596	4,072,386,826
— Diluted	19	2,577,892,069	2,579,202,596	4,072,386,826
Net earnings (loss) per Class A and Class B ordinary share (cent per share)				
— Basic	19	2.73	(16.06)	(6.13)
— Diluted	19	2.71	(16.06)	(6.13)
Share-based compensation expenses were included in:				
Cost of revenues		154	207	312
Research and development expenses		10,251	9,098	7,289
Sales and marketing expenses		2,464	234	156
General and administrative expenses		50,146	32,535	23,159

The accompanying notes are an integral part of these consolidated financial statements.

CANAAN INC.
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
For the Years Ended December 31, 2022, 2023 and 2024
(all amounts in thousands, except share and per share data, or as otherwise noted)

	Note	Ordinary shares		Subscription receivables from shareholders	Treasury stocks		Additional paid-in capital	Statutory reserves	Accumulated other comprehensive loss	Retained earnings (accumulated deficit)	Total shareholders' equity
		Number of Shares	Amount		Number of Shares	Amount					
Balance as of January 1, 2022		<u>2,577,386,552</u>	<u>—</u>	<u>—</u>	<u>226,751,940</u>	<u>(35,765)</u>	<u>429,205</u>	<u>14,123</u>	<u>(646)</u>	<u>135,565</u>	<u>542,482</u>
Share Repurchase	16	(154,614,975)	—	—	154,614,975	(37,379)	—	—	—	—	(37,379)
Repurchase of vested employee restricted share units for tax withholding	16	(17,102,175)	—	—	17,102,175	(4,819)	—	—	—	—	(4,819)
Resale of vested employee restricted share units for tax withholding	16	37,313,775	—	—	(37,313,775)	20,908	—	—	—	(10,158)	10,750
Share-based compensation expense	17	—	—	—	—	—	63,015	—	—	—	63,015
Vesting of restricted share units	16	53,018,580	—	—	(53,018,580)	—	—	—	—	—	—
Profit appropriations to statutory reserves		—	—	—	—	—	—	769	—	(769)	—
Foreign currency translation		—	—	—	—	—	—	—	(36,267)	—	(36,267)
Net income		—	—	—	—	—	—	—	—	69,884	69,884
Balance as of December 31, 2022		<u>2,496,001,757</u>	<u>—</u>	<u>—</u>	<u>308,136,735</u>	<u>(57,055)</u>	<u>492,220</u>	<u>14,892</u>	<u>(36,913)</u>	<u>194,522</u>	<u>607,666</u>
Repurchase of vested employee restricted share units for tax withholding	16	(13,904,625)	—	—	13,904,625	(2,420)	—	—	—	—	(2,420)
Resale of vested employee restricted share units for tax withholding	16	13,904,625	—	—	(13,904,625)	2,420	—	—	—	—	2,420
Issuance of ordinary shares in at-the-market offering, net of offering cost	14	493,188,945	—	—	—	—	65,430	—	—	—	65,430
Issuance of ordinary shares pursuant to preferred shares financing, net of offering cost	15	354,751,230	—	—	—	—	53,625	—	—	—	53,625
Issuance of ordinary shares pursuant to share lending arrangement	15	120,000,000	—	—	—	—	511	—	—	—	511
Share-based compensation expense	17	—	—	—	—	—	42,074	—	—	—	42,074
Vesting of restricted share units	17	51,031,395	—	—	(51,031,395)	—	—	—	—	—	—
Foreign currency translation		—	—	—	—	—	—	—	(6,966)	—	(6,966)
Net loss		—	—	—	—	—	—	—	—	(414,153)	(414,153)
Balance as of December 31, 2023		<u>3,514,973,327</u>	<u>—</u>	<u>—</u>	<u>257,105,340</u>	<u>(57,055)</u>	<u>653,860</u>	<u>14,892</u>	<u>(43,879)</u>	<u>(219,631)</u>	<u>348,187</u>
Cumulative effect of the adoption of ASU 2023-08		—	—	—	—	—	—	—	—	18,893	18,893
Balance as of January 1, 2024		<u>3,514,973,327</u>	<u>—</u>	<u>—</u>	<u>257,105,340</u>	<u>(57,055)</u>	<u>653,860</u>	<u>14,892</u>	<u>(43,879)</u>	<u>(200,738)</u>	<u>367,080</u>
Repurchase of vested employee restricted share units for tax withholding	16	(8,532,915)	—	—	8,532,915	(768)	—	—	—	—	(768)
Resale of vested employee restricted share units for tax withholding	16	8,532,915	—	—	(8,532,915)	768	—	—	—	—	768
Issuance of ordinary shares as a reserve for the at-the-market offering	14	750,000,000	—	—	—	—	—	—	—	—	—
Issuance of ordinary shares pursuant to preferred shares financing, net of offering cost	15	1,049,543,865	—	—	—	—	131,351	—	—	—	131,351
Issuance of ordinary shares pursuant to share lending arrangement	15	42,000,000	—	—	—	—	236	—	—	—	236
Return of ordinary shares under share lending arrangements	15	(42,000,000)	—	—	42,000,000	—	—	—	—	—	—
Cancel of ordinary shares under share lending arrangements	15	—	—	—	(20,178,045)	—	—	—	—	—	—
Share-based compensation expense	17	—	—	—	—	—	30,916	—	—	—	30,916
Vesting of restricted share units	17	49,645,830	—	—	(49,645,830)	—	—	—	—	—	—
Foreign currency translation		—	—	—	—	—	—	—	(13,577)	—	(13,577)
Net loss		—	—	—	—	—	—	—	—	(249,752)	(249,752)
Balance as of December 31, 2024		<u>5,364,163,022</u>	<u>—</u>	<u>—</u>	<u>229,281,465</u>	<u>(57,055)</u>	<u>816,363</u>	<u>14,892</u>	<u>(57,456)</u>	<u>(450,490)</u>	<u>266,254</u>

The accompanying notes are an integral part of these consolidated financial statements.

CANAAN INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
For the Years Ended December 31, 2022, 2023 and 2024
(all amounts in thousands, except share and per share data, or as otherwise noted)

	For the Years Ended December 31,		
	2022	2023	2024
	US\$	US\$	US\$
Cash flows from operating activities			
Net income (loss)	69,884	(414,153)	(249,752)
Adjustments for:			
Revenue recognized on acceptance of cryptocurrency	(35,500)	(58,959)	(90,273)
Cost recognized on payment of cryptocurrency	8,463	8,854	9,821
(Receipt) return of cryptocurrency as customer deposits	—	(4,922)	5,080
Change in fair value of cryptocurrency	—	—	(42,427)
Change in fair value of financial derivatives	—	—	(17,606)
Other income, net	—	—	5,025
Realised gain (loss) on sale of cryptocurrency	170	(6,135)	—
Depreciation and amortization of property, equipment and software	33,689	59,641	28,257
Amortization of intangible assets	—	—	159
Foreign exchange (loss) gain	(2,007)	(9,302)	12,020
Provision of allowance for doubtful receivables	13	14	2,982
Deferred income tax (benefit) expense	(7,791)	(45,686)	66,150
Loss on disposal of property, equipment and software	193	18	(7,215)
Share-based compensation expense	63,015	42,074	30,916
Change in fair value of financial instruments other than derivatives	(3,795)	10,918	(20,571)
Excess of fair value of convertible preferred shares	—	59,199	50,725
Reduction in the carrying amount of the operating lease right-of-use assets	2,254	2,481	1,910
Interest of operating lease liabilities	193	115	90
Interest of long-term loan	—	—	521
Impairment loss of cryptocurrency	7,880	4,706	—
Impairment loss of property, equipment and software	—	21,126	11,303
Write-down of inventories	69,524	174,838	90,807
Write-downs of prepayments	12,828	5,627	9,745
Provision for reserve for inventory purchase commitments	10,890	9,816	—
Unrecognized tax benefit	—	—	6,933
Changes in assets and liabilities:			
Accounts receivable	58	(3,011)	97
Inventories	(232,165)	(123,679)	(129,272)
Cryptocurrency	—	—	(1,761)
Prepayments and other current assets	(70,304)	122,471	43,321
Other non-current assets	(2,032)	2,008	3
Accounts payable	47,259	(10,237)	7,222
Contract liabilities	(198,733)	19,026	4,802
Income tax payable	(14,653)	(3,596)	588
Accrued liabilities and other current liabilities	60,294	6,332	(26,238)
Other non-current liabilities	(315)	9,161	(517)
Operating lease liabilities	(1,914)	(2,365)	(2,107)
Net cash used in operating activities	<u>(182,602)</u>	<u>(123,620)</u>	<u>(199,262)</u>
Cash flows from investing activities:			
Purchase of property, equipment and software	(17,745)	(3,312)	(19,304)
Proceeds from disposal of property, equipment and software	—	2,295	8,783
Proceeds from sale of cryptocurrency	9,642	40,645	71,494
Net cash (used in) provided by investing activities	<u>(8,103)</u>	<u>39,628</u>	<u>60,973</u>

CANAAN INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
For the Years Ended December 31, 2022, 2023 and 2024
(all amounts in thousands, except share and per share data, or as otherwise noted)

	For the Years Ended December 31,		
	2022	2023	2024
	US\$	US\$	US\$
Cash flows from financing activities:			
Payment for repurchase of ordinary shares	(37,379)	—	—
Repurchase of warrants	(6,611)	—	—
Proceeds from issuance of ordinary shares, net of issuance costs under At-the-Market Offering Agreements	—	65,430	—
Proceeds from issuance of convertible preferred shares, net of issuance costs	—	24,575	129,810
Proceeds from borrowings from long-term loan	—	—	9,937
Proceeds from resale of treasury stock	10,397	2,420	768
Repurchase for tax withholdings on vesting of restricted share units	(22,585)	(2,420)	(768)
Net cash (used in) provided by financing activities	(56,178)	90,005	139,747
Net (decrease) increase in cash	(246,883)	6,013	1,458
Effect of exchange rate changes on cash	(80,021)	(11,410)	(1,124)
Cash and restricted cash at the beginning of year	428,455	101,551	96,154
Cash at the end of year	101,551	96,154	96,488
Supplemental disclosure of cash flow information:			
Cash paid for interest	—	—	370
Cash paid for income tax	45,421	2,876	52
Supplemental disclosure of non-cash investing and financing activities:			
Mining equipment transferred from inventory to property, equipment and software	69,712	24,052	38,405
Issuance of ordinary shares pursuant to share lending arrangement	—	511	236

The accompanying notes are an integral part of these consolidated financial statements.

CANAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

1. Organization and principal activities

Canaan Inc., an exempted company with limited liability incorporated in the Cayman Islands, through wholly-owned subsidiaries (collectively referred to as the “Company”), is principally engaged in integrated circuit (the “IC”) design and sale and lease of final mining equipment by integrating its IC products for Bitcoin mining and related components in the People’s Republic of China (the “PRC”), Singapore and other countries and regions.

2. Summary of significant accounting policies

(a) Basis of preparation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”).

Significant accounting policies followed by the Company in the preparation of the accompanying consolidated financial statements are summarized below.

(b) Use of estimates

The preparation of the Company’s consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from such estimates.

The Company believes that accounting estimation of warrant liability, valuation of convertible preferred shares, preferred shares forward contract liability, pre-delivery shares, derivative assets and liabilities and deferred tax assets, write-down for inventories and prepayments, provision for reserve for inventory purchase commitments, valuation and recognition of share-based compensation, and impairment of property, equipment and software reflect significant judgments and estimates used in the preparation of its consolidated financial statements.

Management bases the estimates on historical experience and on various other assumptions as discussed elsewhere to the consolidated financial statements that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results could materially differ from these estimates.

(c) Consolidation

The Company’s consolidated financial statements include the financial statements of Canaan Inc. and its subsidiaries. All transactions and balances among Canaan Inc. and its subsidiaries have been eliminated upon consolidation.

Subsidiaries are those entities in which Canaan Inc. directly or indirectly, controls more than one half of the voting powers; or has the power to appoint or remove the majority of the members of the Board of Directors; or to cast a majority of votes at the meeting of directors; or has the power to govern the financial and operating policies of the investee under a statute or agreement among the shareholders or equity holders.

(d) Foreign currency

The Company has elected to change its reporting currency from Chinese Renminbi (“RMB”) to United States Dollars (“US\$”) on January 1, 2023. Prior years’ comparative financial information has been recast as if the Company always used US\$ as its reporting currency.

The functional currency of Canaan Inc. and its subsidiaries incorporated outside of the PRC is US\$, while the functional currency of the PRC entities in the Company is RMB as determined based on the criteria of Accounting Standards Codification (“ASC”) 830, *Foreign Currency Matters*.

CANAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

Transactions denominated in other than the functional currencies are re-measured into the functional currency of the entity at the exchange rates prevailing on the transaction dates. Financial assets and liabilities denominated in other than the functional currency are re-measured at the balance sheet date exchange rate. The resulting exchange differences are included in the consolidated statements of comprehensive income (loss) as foreign exchange related gains or loss.

The financial statements of the Company are translated from the functional currency to the reporting currency, US\$. Assets and liabilities of PRC entities are translated into US\$ using the applicable exchange rates at the balance sheet date, income and expense items are translated at average exchange rates prevailing during the fiscal year. Translation adjustments arising from these are reported as foreign currency translation adjustments and are shown as a separate component of shareholders' equity on the consolidated financial statement.

(e) Warrant Liability

The freestanding warrants to purchase American Depositary Share ("ADSs") at a future date were determined to be freestanding instruments that were accounted for as a liability. At initial recognition, the Company recorded the warrant liability on the consolidated balance sheets at its estimated fair value. The proceeds from issuance of ordinary shares and warrants are firstly allocated to warrant liability based on its fair value. The residual method is used to allocate the proceeds to shareholders' equity. The warrant liability is subject to remeasurement at each reporting period and the Company adjusted the carrying value of the warrant liability to fair value at the end of each reporting period utilizing the binomial option pricing model, with changes in estimated fair value included in the change in fair value of financial instruments other than derivatives on the consolidated statement of comprehensive income (loss).

(f) Fair value measurements

Fair value is the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining the fair value measurements for assets and liabilities required or permitted to be recorded at fair value, the Company considers the principal or most advantageous market in which it would transact and it considers assumptions that market participants would use when pricing the asset or liability.

The established fair value hierarchy requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The three levels of inputs that may be used to measure fair value include:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Observable, market-based inputs, other than quoted prices, for the assets or liabilities either directly or indirectly.

Level 3: Unobservable inputs to the valuation methodology that are significant to the measurement of the fair value of the assets or liabilities.

Accounting guidance also describes three main approaches to measuring the fair value of assets and liabilities: (1) market approach; (2) income approach and (3) cost approach. The market approach uses prices and other relevant information generated from market transactions involving identical or comparable assets or liabilities. The income approach uses valuation techniques to convert future amounts to a single present value amount. The measurement is based on the value indicated by current market expectations about those future amounts. The cost approach is based on the amount that would currently be required to replace an asset.

The Company's financial instruments consist principally of cash, accounts receivable, cryptocurrency deposit included in prepayments and other current assets, cryptocurrency receivable, cryptocurrency, non-current financial investments, accounts payable, cryptocurrency deposit included in accrued liabilities and other current liabilities, preferred shares forward contract liability, convertible preferred shares and long-term loans.

CANAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

As of December 31, 2023 and 2024, the carrying values of cash, accounts receivable and accounts payable approximated to their fair values reported in the consolidated balance sheets due to the short term nature of these instruments.

The Company's non-financial assets, such as property, equipment and software, would be measured at fair value only if they were determined to be impaired.

The following table sets forth the Company's assets and liabilities that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy:

As of December 31, 2023	Level 1	Level 2	Level 3	Fair value at December 31, 2023
Prepayments and other current assets (Note 12)	—	113	—	113
Cryptocurrency	28,342	—	—	28,342
Assets	28,342	113	—	28,455
Accrued liabilities and other current liabilities (Note 12)	—	7,185	—	7,185
Preferred shares forward contract liability (Note 15)	—	—	40,344	40,344
Liabilities	—	7,185	40,344	47,529

As of December 31, 2024	Level 1	Level 2	Level 3	Fair value at December 31, 2024
Prepayments and other current assets (Note 12)	—	253	—	253
Cryptocurrency receivable (Note 12)	—	69,582	—	69,582
Cryptocurrency	61,821	—	—	61,821
Assets	61,821	69,835	—	131,403
Accounts payable (Note 12)	—	2,595	—	2,595
Accrued liabilities and other current liabilities (Note 12)	—	7,563	—	7,563
Convertible preferred shares (Note 15)	—	—	68,113	68,113
Long-term loans (Note 12)	—	13,999	—	13,999
Liabilities	—	24,157	68,113	92,270

(g) *Cash*

Cash represents bank deposits placed with banks or other financial institutions, which are unrestricted as to withdrawal or use.

	As of December 31,	
	2023	2024
US dollar denominated bank deposits with financial institutions in the U.S.	9,390	21,932
Financial institutions in the PRC		
RMB denominated bank deposits	10,098	13,946
US dollar denominated bank deposits	37,170	2,144
Others denominated bank deposits	32	55
Subtotal	47,300	16,145
Financial institutions in Singapore		
US dollar denominated bank deposits	37,105	51,027
SGD denominated bank deposits	1,290	2,970
RMB denominated bank deposits	7	6
Subtotal	38,402	54,003
Bank deposits with other overseas financial institutions	1,062	4,408
Total	96,154	96,488

CANAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

The bank deposits, with financial institutions in the mainland of the PRC, Hong Kong, United States, Singapore, Malaysia and Kazakhstan are insured by the government authorities up to RMB500, HKD500, US\$250, SGD100, MYR250 and KZT15,000 per bank, respectively. The bank deposits including term deposits are insured by the government authorities with amounts up to US\$3,013 and US\$3,218 as of December 31, 2023 and 2024, respectively. The Company has not experienced any losses in uninsured bank deposits and does not believe that it is exposed to any significant risks on cash held in bank accounts. To limit exposure to credit risk, the Company primarily places bank deposits with large financial institutions in the PRC mainland, United States and Singapore with acceptable credit rating.

(h) Accounts receivable

Accounts receivable are presented net of allowance for credit loss. The allowance for credit loss is based upon the amount of losses expected to be incurred in the collection of these accounts pursuant to the guidance outlined in ASU 2016-13, Financial Instruments - Credit Loss (ASU 2016-13, Topic 326, or ASC 326), which the Company adopted on January 1, 2023. The estimated losses are calculated using the loss rate method based upon a review of outstanding receivables, including specific accounts, related aging, and on historical collection experience. These allowances reflect our estimate of the amount of our receivables that we will be unable to collect based on historical write-off experience and, as applicable, current conditions and reasonable and supportable forecasts that affect collectability. Our estimate could require a change based on changing circumstances, including changes in the economy or in the circumstances of individual customers. The Company takes a write-off of the account balances when the Company can demonstrate all means of collection on the outstanding balances have been exhausted. Provision for credit losses, net of recoveries for the period are included in general and administrative expenses in the accompanying consolidation statements of comprehensive income (loss). During the years ended December 31, 2022, 2023 and 2024, the Company recorded provision of allowance for accounts receivables of nil, US\$14 and US\$1,386, respectively.

(i) Inventories

Inventories, consisting of finished goods, work in process and raw materials, which are purchased from contractual manufacturers and component suppliers. Inventories are stated at the lower of cost and net realizable value. Cost of inventory is determined using the weighted average cost method. Adjustments are recorded to write down the cost of inventory to the estimated net realizable value due to slow-moving and obsolete inventory, which is dependent upon factors such as historical and forecasted consumer demand, and promotional environment. The Company takes ownership, risks and rewards of the products purchased.

The Company considers all data available, including future demand and subsequent changes in product prices that may provide additional information about the valuation of inventories at the balance sheet date.

(j) Cryptocurrency

Cryptocurrency is comprised of cryptocurrencies earned as noncash consideration in exchange for providing hash computation services to a mining pool as well as in exchange for the sale of mining equipment which are accounted for in connection with the Company's revenue recognition policy disclosed in Note 2(r). Cryptocurrency is classified in non-current assets in the consolidated balance sheets, because at the time of assessment, there is no foreseeable limit to the period over which such assets are expected to generate cash flows. The Company sells its digital currency on a first-in-first-out basis.

On December 13, 2023, the FASB issued ASU No. 2023-08, Intangibles - Goodwill and Other - Crypto Assets (Topic 350-60): Accounting for and Disclosure of Crypto Assets ("ASU 2023-08"). ASU 2023-08 requires entities to measure crypto assets that meet specific criteria at fair value with changes recognized in net income each reporting period. The new standard is effective for the Company for its fiscal year beginning January 1, 2025, with early adoption permitted. Effective January 1, 2024, the Company early adopted ASU 2023-08, resulting in US\$18,893 increase to cryptocurrency and US\$18,893 decrease to accumulated deficit on the Consolidated Balance Sheets as of the beginning of the fiscal year ended December 31, 2024.

CANAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

As a result of adopting ASU 2023-08, the Company measures cryptocurrency at fair value as of each reporting period in accordance with ASC 820, Fair Value Measurement (“ASC 820”), based on quoted prices on the active trading platform that the Company normally transacts and has determined is its principal market for bitcoin (Level 1 inputs), based on all information that is reasonably available. Since bitcoin is traded on a 24-hour period, the Company utilizes the price at the start of day Coordinated Universal Time (00:00:00 UTC), which aligns with the Company’s revenue recognition policy. Gains and losses from the remeasurement of cryptocurrency are included within change in fair value of cryptocurrency in the consolidated statements of comprehensive income (loss). The Company sells cryptocurrency and gains and losses from such transactions, measured as the difference between the cash proceeds and the carrying basis of cryptocurrency as determined on a first-in-first-out basis, are also included within change in fair value of cryptocurrency in the consolidated statements of comprehensive income (loss). The Company recorded change in fair value of cryptocurrency of \$42.4 million during the year ended December 31, 2024.

Before adopting ASU 2023-08, the Company accounted for cryptocurrency as intangible asset with indefinite useful lives. Under this model, cryptocurrency was not amortized but assessed for impairment annually, or more frequently if events or changes in circumstances indicate it was more likely than not that the asset is impaired. Impairment exists when the carrying amount exceeds its fair value. In testing for impairment, the Company had the option to first perform a qualitative assessment to determine whether it was more likely than not that an impairment exists. If it was determined that it was not more likely than not that an impairment exists, a quantitative impairment test was not necessary. If the Company concluded otherwise, it was required to perform a quantitative impairment test. The Company had elected to bypass the optional qualitative impairment assessment and to track its cryptocurrency activity daily for impairment assessment purposes. The Company performed an analysis each day to identify whether events or changes in circumstances, principally decreases in the quoted price of cryptocurrency on the active trading platform, indicated that it was more likely than not that its cryptocurrencies are impaired. For impairment testing purposes, the lowest intraday trading price of cryptocurrency was identified at the single cryptocurrency level. The excess, if any, of the carrying amount of cryptocurrency and the lowest daily trading price of cryptocurrency represented a recognized impairment loss. To the extent an impairment loss was recognized, the loss established the new cost basis of the asset. Subsequent reversal of previously recorded impairment losses was prohibited. During the years ended December 31, 2022 and 2023, the Company recorded impairment on cryptocurrency of US\$7,880 and US\$4,706, respectively.

The Company accounts for cryptocurrency received as customer deposits and liability to be settled in cryptocurrency at fair value of the underlying cryptocurrency with changes recorded in change in fair value of financial derivative. As of December 31, 2023 and 2024, cryptocurrency received as customer deposits of US\$7,185 and US\$7,563 are recorded in accrued liabilities and other current liabilities, respectively. As of December 31, 2023 and 2024, liability to be settled for electricity and hosting service in cryptocurrency of nil and US\$2,595 are recorded in accounts payable, respectively.

Cryptocurrency awarded to the Company through its mining activities as well as in exchange for the sale of mining equipment are included as an adjustment to reconcile net loss to cash used in operating activities on the consolidated statements of cash flows. Proceeds from sale of cryptocurrency are included within cash flows from investing activities on the consolidated statements of cash flows and any realized gains or losses from such sales are included in general and administrative expenses on the consolidated statements of comprehensive income (loss).

(k) Cryptocurrency receivable

The Company enters into borrowing arrangements that require the Company to pledge collateral in the form of cryptocurrency. If the lender obtains control or has the right to sell, pledge, or rehypothecate the Company’s collateral, the Company derecognizes the pledged bitcoins, and recognizes a receivable from the lender when pledge was made. If the lender does not obtain control or have the right to sell, pledge, or rehypothecate the collateral, the pledged bitcoins does not meet the derecognition criteria and is recorded in cryptocurrency, restricted.

The Company also enters into fixed term product agreement with a crypto assets exchange institution and transferred cryptocurrency as fixed term investment product with a fixed annual rate of returns. If the institution obtains control or has the right to sell, pledge, or rehypothecate the transferred cryptocurrency, the Company derecognizes the bitcoins, and recognizes a receivable from the institution. If the institution does not obtain control or have the right to sell, pledge, or rehypothecate the transferred cryptocurrency, the pledged bitcoins does not meet the derecognition criteria and is recorded in cryptocurrency, restricted.

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Cryptocurrency receivable which will be released within one year is included in the current assets and which will be released over one year is included in the non-current assets. Cryptocurrency receivable is initially and subsequently measured at the fair value. Changes in fair value are recorded in change in fair value of financial derivatives.

(l) Property, equipment and software

Property, equipment and software are stated at historical cost less accumulated depreciation, amortization and impairment loss, if any. Depreciation and amortization is calculated using the straight-line method over the shorter of their estimated useful lives of these assets or the term of the related leases. The estimated useful lives are as follows:

Leasehold improvements	the shorter of their useful lives and the lease terms
Computers and electronic equipment	3 to 5 years
Mechanical equipment	5 years
Mining equipment	1.5 years
Motor vehicles	5 years
Software	3 years

Expenditures for maintenance and repairs are expensed as incurred. The gain or loss on the disposal of property, equipment and software is the difference between the net sales proceeds and the carrying amount of the relevant assets and is recognized in the consolidated statements of comprehensive income (loss). For the year ended December 31, 2024, the Company recognized a gain of US\$7,215 from the disposal of the self-used mining equipment.

Construction in progress represents assets under construction. Construction in progress is transferred to property, equipment and software and depreciation or amortization commences when an asset is ready for its intended use.

(m) Non-current financial investment

The Company's non-current financial investment include an equity investment without readily determinable fair value, and over which the Company has neither significant influence nor control through investments in common stock or in-substance common stock, and is measured and recorded using a measurement alternative that measures the non-current financial investment at cost minus impairment, if any, plus or minus changes resulting from qualifying observable price changes. The carrying values of the Company's non-current financial investment without readily determinable fair values were US\$2,824 and US\$2,782 as of December 31, 2023 and 2024. No impairment loss was recognized for the three years ended December 31, 2024.

(n) Impairment of long-lived assets

For other long-lived assets including property, equipment and software, the Company evaluates for impairment whenever events or changes (triggering events) indicate that the carrying amount of an asset may no longer be recoverable. The Company assesses the recoverability of the long-lived assets by comparing the carrying value of the long-lived assets to the estimated undiscounted future cash flows expected to receive from the use of the assets and their eventual disposition. Significant unobservable input used in the fair value measurement includes Bitcoin prices. Such assets are considered to be impaired if the sum of the expected undiscounted cash flows is less than the carrying amount of the assets. The impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets.

The Company determined that the carrying value of its mining equipment was not recoverable. As of each relevant measurement date, the fair value of mining equipment is primarily represented by the price market participant would pay to acquire the mining equipment, which reflects the highest and best use of mining equipment. Fair value of the mining equipment was classified in Level 2 of the fair value hierarchy due to the quoted market prices for similar assets. During the years ended December 31, 2022, 2023 and 2024, the Company recognized impairment charge of nil, US\$21,126 and US\$11,303, respectively, which mainly due to the impairment for mining equipment deployed as a result of declined Bitcoin price or increased Bitcoin mining difficulty.

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(o) Contract liabilities

Cash proceeds received from customers before product delivery is recognized as contract liabilities and is recognized as revenues when revenue recognition criteria are met.

The prepayments received from customers as of December 31, 2023 and 2024 was US\$19,614 and US\$24,248, respectively. The revenue recognized during the years ended December 31, 2022, 2023 and 2024 for the beginning balance of contract liability was US\$196,897, US\$380 and US\$17,510, respectively.

(p) Long-term loans

Long-term loans are carried at amortized cost. Transaction costs are recorded as direct deductions from the related loan liabilities and amortized to interest expense using the effective interest method over the terms of the long-term loan. Interest expense on debt includes long-term loan interest expense, as well as amortization of debt issuance costs. Long-term loans which will be mature within one year is classified as current portion of long-term loans.

Cryptocurrency borrowings are accounted for as hybrid instruments, with a dollar-denominated debt host contract that contains an embedded derivative. The initial fair value of the embedded derivative is zero and subsequently measured at the fair value, with changes in fair value recognized in change in fair value of financial derivative.

(q) Derivative

The Company may enter into arrangements that result in obtaining the right to receive or obligation to deliver a fixed amount of cryptocurrency in the future. Such arrangements are accounted as hybrid instruments, consisting of a receivable or debt host contract that is initially measured at the fair value of the underlying cryptocurrency and is subsequently carried at amortized cost, and an embedded forward feature based on the changes in the fair value of the underlying cryptocurrency. The embedded forward is bifurcated from the host contract, and is subsequently measured at fair value. The Company presents the embedded derivative instrument together with the host contract.

(r) Revenue from contracts with customers (ASC 606)

The Company recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to receive in exchange for those goods or services.

Products revenue

The Company generates revenue primarily from the sale of mining equipment directly to a customer, such as a business or individual engaged in Bitcoin mining activities. As the Bitcoin price fluctuates, the Company may adjust the selling price of mining equipment on an as - needed basis, as customers are only willing to pay for machines based on their ability to recover their investment through mining Bitcoin over a relatively short period of time. The Company's sales arrangements usually require a full prepayment before the delivery of products. The Company implemented an installment policy for certain significant, good-standing customers from 2023. The payment terms under installment policy generally consist of the installments over a period of 90 to 180 days.

The Company recognizes products revenue at a point in time based on management's evaluation of when the control of the products has been passed to customers. The transfer of control is considered complete when products have been picked up by, shipped to or delivered to the customers.

The Company offers a standard product warranty of 360 days that the product will operate under normal use. At the time revenue is recognized, an estimate of future warranty costs is recorded as a component of cost of revenues. The reserves established are regularly monitored based upon historical experience and any actual claims charged against the reserve. The amount of total warranty costs incurred was US\$1,896, US\$3,596 and US\$2,598 for the years ended December 31, 2022, 2023 and 2024, respectively.

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Mining revenue

The Company entered into a Bitcoin mining pool by executing a contract, as amended from time to time, with a mining pool operator to perform hash calculations in exchange for consideration. Providing hash computation services to a mining pool is an output of the Company's ordinary activities. The provision of such hash computation services is the sole performance obligation. The mining pool arrangement is terminable at any time without substantial penalty by the mining pool and may be terminated without substantial penalty by the Company upon providing one contract day's prior written notice. The Company's enforceable right to compensation only begins when and continues while the Company provides hash computation services to its customer, the mining pool operator. Accordingly, the contract term with the mining pool is deemed to be less than 24 hours and to continuously renew throughout the day. Additionally, the Company concluded that the mining pool operator's renewal right is not a material right because the renewal rights do not include any discounts; that is, the terms, conditions, and compensation amounts are at the then-current market rates.

The Company is entitled to non-cash compensation based on the pool operator's payout model. The payout methodologies differ depending on the type of third-party operated mining pool. Full-Pay-Per-Share ("FPPS") pools pay block rewards and transaction fees, less mining pool fees and Pay-Per-Share ("PPS") pools pay block rewards less mining pool fees but no transaction fees. For FPPS and PPS pools, the Company is entitled to non-cash consideration even if a block is not successfully validated by the mining pool operators.

The Company receives Bitcoin from mining operation, which is considered noncash and all variable. The fair value of the Bitcoin award received would generally be determined using the quoted price of Bitcoin in the Company's principal market at the time of contract inception. The Company has adopted an accounting policy to aggregate individual contracts with individual terms less than 24 hours within each intraday period and apply a consistent valuation point, the start of day Coordinated Universal Time (00:00:00 UTC), to value the related noncash consideration. Revenue is recognized when it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur, which is the same day that control of the contracted service transfers to the mining pool and is the same day as the contract inception. After every 24-hour contract term, the mining pool transfers the Bitcoin consideration to the Company's designated Bitcoin currency wallets.

Consideration payable to the customer in the form of a pool operator fee, which is incurred only to the extent that the Company has generated consideration, is deducted from the bitcoin the Company receives and is recorded as contra - revenue, as it does not represent a payment for a distinct good or service.

Other revenues

The Company also generates a small portion of revenue from the leases of mining equipment and maintenance or development services under separate contracts. Revenue is recognized over the period when the related services were rendered to the customers.

(s) Value-added-tax ("VAT") recoverable and surcharges

Value added tax recoverable represents amounts paid by the Company for purchases. The surcharges (i.e., Urban construction and maintenance tax, educational surtax, local educational surtax), vary from 6% to 12% of the value-added-tax paid depending on the taxpayer's location.

(t) Cost of revenues

Amounts recorded as cost of revenues relate to direct costs incurred to generate revenue. Such costs are recorded as incurred. Cost of revenues consists of product costs, mining costs and other costs. Product costs include costs of raw material, contractual manufacturers for production, labor costs, shipping and handling costs, manufacturing and depreciation, warehousing costs, inventories write-downs, prepayments write-downs, provision for reserve for inventory purchase commitments and tax surcharges. Mining costs include direct production costs of mining operations, including electricity and hosting, as well as depreciation of deployed mining machines. Other costs include labor costs and other service costs.

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(u) Research and development expenses

Research and development expenses consist primarily of salary and welfare for research and development personnel, consulting and contractor expenses, testing and tooling materials and other expenses associated with research and development personnel. The Company recognizes research and development expenses as expense when incurred.

(v) Sales and marketing expenses

Sales and marketing expenses consist primarily of salary and welfare for sales and marketing personnel, promotion and marketing expenses and other expenses in association with sales and marketing personnel.

Advertising expense is expensed as incurred and included in sales and marketing expenses. The advertising expenses were US\$964, US\$1,643 and US\$535 for the years ended December 31, 2022, 2023 and 2024, respectively.

(w) General and administrative expenses

General and administrative expenses consist primarily of salary and welfare for general and administrative personnel, rental expenses and depreciation in association with general and administrative personnel, allowance for doubtful receivables, entertainment expense, general office expense and professional service fees.

(x) Government grants

Government grants generally consist of financial subsidies received from local governments for operating a business in their jurisdictions and compliance with specific policies promoted by the local governments. The eligibility to receive such benefits and amount of financial subsidy to be granted are determined at the discretion of the relevant government authorities.

Government grants are recognized when there are reasonable assurances that the Company will comply with the conditions attach to them and the grants are received. Government grants for the purpose of giving immediate financial support to the Company with no future related costs or obligation are recognized in the Company's consolidated statements of comprehensive income (loss) when the grants are received. Government grants with conditions attached to them are recognized as liabilities when received, and will be released to the consolidated statements of comprehensive income (loss) when the Company is not subject to further obligation or future refunds. The Company received government grants that required the Company to operate in a particular area for a certain period.

US\$2,861, US\$3,559 and US\$2,038 were recognized in other income, net for the years ended December 31, 2022, 2023, and 2024, respectively. US\$9,191 and US\$9,055 were recognized in deferred government grant of accrued liabilities and other liabilities as of December 31, 2023 and 2024, respectively (Note 10).

(y) Lease arrangement as lessee

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, operating lease liabilities, current, and operating lease liabilities, non-current in the Company's consolidated balance sheets.

ROU assets represent the Company's right to use an underlying asset for the lease term and operating lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. When determining the lease term, the Company includes options to extend or terminate the lease when it is reasonably certain that it will exercise that option, if any. As the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate, which it calculates based on the credit quality of the Company and by comparing interest rates available in the market for similar borrowings, and adjusting this amount based on the impact of collateral over the term of each lease.

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The Company has elected not to recognize operating lease right-of-use assets or operating lease liabilities for leases with an initial term of 12 months or less and the Company recognizes lease expense for these leases on a straight-line basis over the lease terms.

(z) Employee social security and welfare benefits

Employees of the Company in the PRC are entitled to staff welfare benefits including pension, work-related injury benefits, maternity insurance, medical insurance, unemployment benefit and housing fund plans through a PRC government-mandated defined contribution plan. The Company is required to contribute to the plan based on certain percentages of the employees' salaries, up to a maximum amount specified by the local government.

The PRC government is responsible for the medical benefits and the pension liability to be paid to these employees and the Company's obligations are limited to the amounts contributed and no legal obligation beyond the contributions made. Employee social security and welfare benefits included as expenses in the consolidated statements of comprehensive income (loss) amounted to US\$7,016, US\$9,561 and US\$8,151 for the years ended December 31, 2022, 2023 and 2024, respectively.

(aa) Income taxes

The Company accounts for income taxes under the liability method. Under the liability method, deferred income tax assets and liabilities are determined based on the differences between the financial reporting and income tax bases of assets and liabilities and are measured using the tax income rates that will be in effect when the differences are expected to reverse. A valuation allowance is recorded if it is more likely than not that some portion or all deferred income tax asset will not be realized in the foreseeable future.

The Company evaluates its uncertain tax positions using the provisions of ASC 740-10, *Income Taxes*, which prescribes a recognition threshold that a tax position is required to meet before being recognized in the financial statements. The Company recognizes in the financial statements the benefit of a tax position which is "more likely than not" to be sustained under examination based solely on the technical merits of the position assuming a review by tax authorities having all relevant information. As of December 31, 2024, the tax years ended December 31, 2020 through 2024 for the PRC subsidiaries remain open for statutory examination by the PRC tax authorities. Tax positions that meet the recognition threshold are measured using a cumulative probability approach, at the largest amount of tax benefit that has a greater than fifty percent likelihood of being realized upon settlement. It is the Company's policy to recognize interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense. As of December 31, 2024, US\$1,854 of accrued interest was recorded.

(ab) Share-based compensation

The Company grants restricted shares and share options to eligible employees and accounts for share-based compensation in accordance with ASC 718, Compensation—Stock Compensation.

Employees' share-based compensation awards are measured at the grant date fair value of the awards and recognized as expenses a) immediately at the grant date if no vesting conditions are required; or b) for share-based awards granted with only service conditions, using the graded vesting method, over the vesting period.

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A change in any of the terms or conditions of share-based awards is accounted for as a modification of the awards. The Company calculates incremental compensation expense of a modification as the excess of the fair value of the modified awards over the fair value of the original awards immediately before its terms are modified at the modification date. For vested awards, the Company recognizes incremental compensation cost in the period when the modification occurs. For awards not being fully vested, the Company recognizes the sum of the incremental compensation expense and the remaining unrecognized compensation expense for the original awards over the remaining requisite service period after modification. Cancellation of an award accompanied by the concurrent grant of a replacement award or other valuable consideration shall be accounted for as a modification of the terms of the cancelled award. Cancellation of an award without accompanied by the concurrent grant of a replacement award is treated as a settlement for no consideration. Accordingly, any previously unrecognized compensation cost shall be recognized at the cancellation date.

Share-based compensation in relation to the restricted shares is measured based on the fair market value of the Company's ordinary shares at the grant date of the award. Share-based compensation in relation to the share options is estimated using the Binomial Model. The determination of the fair value of share options is affected by the share price of the Company's ordinary shares as well as the assumptions regarding a number of complex and subjective variables, including the expected share price volatility, risk-free interest rate, exercise multiple and expected dividend yield. The fair value of these share options was determined by management with the assistance from an independent valuation firm.

(ac) Statutory reserves

The Company's subsidiaries incorporated in the PRC are required on an annual basis to make appropriations of retained earnings set at certain percentage of after-tax profit determined in accordance with PRC accounting standards and regulations ("PRC GAAP").

Appropriation to the statutory general reserve should be at least 10% of the after tax net income determined in accordance with the legal requirements in the PRC until the reserve is equal to 50% of the entities' registered capital. The Company is not required to make appropriation to other reserve funds and the Company does not have any intentions to make appropriations to any other reserve funds.

The general reserve fund can only be used for specific purposes, such as offsetting the accumulated losses, enterprise expansion or increasing the registered capital. Appropriations to the general reserve funds are classified in the consolidated balance sheets as statutory reserves.

There are no legal requirements in the PRC to fund these reserves by transfer of cash to restricted accounts, and the Company has not done so.

Relevant laws and regulations permit payments of dividends by the PRC subsidiaries and affiliated companies only out of their retained earnings, if any, as determined in accordance with respective accounting standards and regulations. Accordingly, the above balances are not allowed to be transferred to Canaan Inc. in terms of cash dividends, loans or advances.

The Company has made US\$769, nil and nil appropriations to statutory reserve for the years ended December 31, 2022, 2023 and 2024, respectively.

(ad) Repurchase of share

The Company accounts for treasury stock using the cost method. Under the cost method, when the Company's shares are acquired for purposes other than retirement, the costs of the acquired stock will be shown separately as a deduction from the total of capital stock.

(ae) Earnings (loss) per share

Basic earnings (loss) per share is computed by dividing net income (loss) attributable to holders of ordinary shares by the weighted average number of ordinary shares outstanding during the period.

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Diluted earnings (loss) per share is calculated by dividing net income (loss) attributable to ordinary shareholders as adjusted for the effect of dilutive ordinary equivalent shares, if any, by the weighted average number of ordinary and dilutive ordinary equivalent shares outstanding during the period. Dilutive equivalent shares are excluded from the computation of diluted earnings (loss) per share if their effects would be anti-dilutive. Ordinary share equivalents consist of the ordinary shares issuable upon the conversion of the share-based awards, using the treasury stock method and the ordinary shares issuable upon the conversion of the convertible preferred shares using if converted method.

(af) Comprehensive income (loss)

Comprehensive income (loss) is defined as the change in shareholders' equity of the Company during a period arising from transactions and other events and circumstances excluding transactions resulting from investments by shareholders and distributions to shareholders.

Comprehensive income (loss) is reported in the consolidated statements of comprehensive income (loss). Accumulated other comprehensive loss of the Company include the foreign currency translation adjustments.

(ag) Segment reporting

Operating segments are defined as components of an enterprise engaging in businesses activities for which separate financial information is available that is regularly evaluated by the Company's chief operating decision makers in deciding how to allocate resources and assess performance. The Company's chief operating decision maker has been identified as the Chief Executive Officer, who reviews consolidated results including revenue, gross profit and operating profit at a consolidated level only. Significant segment expenses and other segment items are consistent with the financial information included in the consolidated statements of comprehensive income (loss). The Company does not distinguish between markets for the purpose of making decisions about resources allocation and performance assessment. Hence, the Company has only one operating segment and one reportable segment.

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Long-lived assets consist of cryptocurrency, property, equipment and software, net, operating lease right-of-use assets and other non-current assets. As of December 31, 2024, the long-lived assets of US\$55,224, US\$37,755, US\$33,850, US\$17,383 and US\$6,207 were located or belong to subsidiaries located in Singapore, Cayman, the United States, Ethiopia and Central Asia, respectively. The remaining long-lived assets were mainly located in PRC. The Company's revenue segregated by geographic region is disclosed below.

The geographical region of revenue generated is based on the location where the customers based or the services were provided:

Geographic region	For the Years Ended December 31,		
	2022	2023	2024
United States of America	93,921	28,101	70,986
Mainland China	18,267	115,526	68,165
The United Arab Emirates	—	343	41,450
Ethiopia	—	1,337	32,578
Hong Kong Special Administrative Region	—	17,360	13,281
Malaysia	119,337	15,326	10,099
Kazakhstan	57,546	24,571	7,747
Canada	18,271	259	6,548
Netherland	—	2	6,083
Singapore	41	43	5,249
Georgia	28	—	2,094
Paraguay	3	610	1,437
Thailand	2,774	3,701	555
Indonesia	215,198	300	147
Australia	60,379	9	22
Cyprus	36,230	7	1
Other countries or regions	27,938	3,982	2,882
Total	<u>651,526</u>	<u>211,477</u>	<u>269,324</u>

(ah) Recently issued accounting pronouncements*i. New and amended standards adopted by the Company:*

On December 13, 2023, the FASB issued ASU No. 2023-08, Intangibles - Goodwill and Other - Crypto Assets (Topic 350-60): Accounting for and Disclosure of Crypto Assets ("ASU 2023-08"). ASU 2023-08 requires entities to measure crypto assets that meet specific criteria at fair value with changes recognized in net income each reporting period. Additionally, ASU 2023-08 requires an entity to present crypto assets measured at fair value separately from other intangible assets in the balance sheets and record changes from remeasurement of crypto assets separately from changes in the carrying amounts of other intangible assets in the income statement. The new standard is effective for the Company for its fiscal year beginning January 1, 2025, with early adoption permitted, and should be applied using a modified retrospective transition method with a cumulative-effect adjustment recorded to the opening balance of retained earnings as of the beginning of the year of adoption. The Company early adopted ASU 2023-08 on January 1, 2024, which has a cumulative adjustment to increase the opening balance of retained earnings by US\$18,893.

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In August 2020, the FASB issued Accounting Standards Update 2020-06, Debt - Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40) ("ASU 2020-06") to simplify accounting for certain financial instruments. ASU 2020-06 eliminates the current models that require separation of beneficial conversion and cash conversion features from convertible instruments and simplifies the derivative scope exception guidance pertaining to equity classification of contracts in an entity's own equity. The new standard also introduces additional disclosures for convertible debt and freestanding instruments that are indexed to and settled in an entity's own equity. ASU 2020-06 amends the diluted earnings per share guidance, including the requirement to use the if-converted method for all convertible instruments. The amendments in ASU 2020-06 are effective for public business entities, excluding entities eligible to be smaller reporting companies as defined by the SEC, for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. As the Company is an "emerging growth company" and elects to apply for the new and revised accounting standards at the effective date for a private company, the Company adopted ASU 2020-06 for the year beginning on January 1, 2024, which did not have a material effect on the Company's consolidated financial statements.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures ("ASU 2023-07"). ASU 2023-07 is intended to enhance reportable segment disclosures by requiring disclosures of significant segment expenses regularly provided to the CODM, requiring disclosure of the title and position of the CODM and explanation of how the reported measures of segment profit and loss are used by the CODM in assessing segment performance and allocation of resources. ASU 2023-07 is effective for all public entities for annual periods beginning after December 31, 2023; early adoption is permitted. The Company adopted ASU 2023-07 for the year beginning on January 1, 2024, which did not have a material impact on its disclosures.

ii. *New and amended standards not yet adopted by the Company:*

In December 2023, the FASB issued ASU No. 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures ("ASU 2023-09"). ASU 2023-09 expands existing income tax disclosures for rate reconciliations by requiring disclosure of certain specific categories and additional reconciling items that meet quantitative thresholds and expands disclosures for income taxes paid by requiring disaggregation by certain jurisdictions. ASU 2023-09 is effective for public business entities for annual periods beginning after December 15, 2024, and interim periods within those annual periods; early adoption is permitted. The Company plans to adopt ASU 2023-09 for the year beginning on January 1, 2025 and does not expect the updated guidance to have a material impact on its disclosures.

In December 2024, the FASB issued ASU 2024-03, Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40) ("ASU 2024-03"). ASU 2024-03 requires, in the notes to the financial statements, disclosures of specified information about certain costs and expenses specified in the updated guidance. ASU 2024-03 is effective for annual reporting periods beginning after December 15, 2026, and interim reporting periods beginning after December 15, 2027. Early adoption is permitted. The Company is evaluating the impact the updated guidance will have on its disclosures.

3. Risks and concentration

(a) Concentration of credit risk

Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash and accounts receivable. The Company places its cash with financial institutions with high credit ratings and quality.

The Company conducts credit evaluations of customers, and generally does not require collateral or other security from its customers. The Company establishes an allowance for doubtful accounts primarily based upon the age of the receivables and factors surrounding the credit risk of specific customers.

Accounts receivable are unsecured and are derived from revenue earned through customers. The risk with respect to accounts receivable is mitigated by credit evaluations performed on them.

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The Company believes it is not exposed to significant credit risk on cash and accounts receivable.

As of December 31, 2023 and 2024, accounts receivable were US\$2,997, and US\$1,514, respectively.

Accounts receivable concentration of credit risk is as below:

	As of December 31,	
	2023	2024
Customer A	97 %	—
Customer G	—	100 %

Customers which contributed more than 10% of total revenue are as below:

	For the Years Ended December 31,		
	2022	2023	2024
Customer B	33 %	*	*
Customer C	22 %	*	*
Customer D	16 %	*	*
Customer E	*	14 %	11 %
Customer F	*	*	11 %

* Less than 10%

(b) Supplier concentration

For the year ended December 31, 2022, the Company's purchases substantially all its integrated circuits from three suppliers.

For the year ended December 31, 2023, the Company's purchases substantially all its integrated circuits from two suppliers.

For the year ended December 31, 2024, the Company's purchases substantially all its integrated circuits from one supplier.

Although only a limited number of manufacturers for such integrated circuits are available, management believes that they could change their suppliers within these manufacturers which provided integrated circuits on comparable terms. A change in suppliers, however, could cause a delay in manufacturing and a possible loss of sales, which would affect operating results adversely.

4. Inventories

Inventories consist of the following:

	As of December 31,	
	2023	2024
Raw materials	95,065	56,524
Work in process	15,898	5,566
Finished goods	31,324	32,530
Total	142,287	94,620

During the years ended December 31, 2022, 2023 and 2024, the Company recognized inventories write-down of US\$69,524, US\$174,838 and US\$90,807 in cost of revenues, respectively.

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5. **Prepayments and other current assets**

The prepayments and other current assets consist of the following:

	As of December 31,	
	2023	2024
Prepayments and other current assets		
VAT recoverable and refund	55,403	62,620
Prepayments to vendors (Note a)	46,277	18,848
Deferred charges	7,546	3,808
Deposits	3,746	2,150
Others (Note b)	9,270	3,448
Total	122,242	90,874

Note a: Prepayments to vendors mainly represent prepayments made to third-party suppliers for foundry services. The Company also records a write-down for the prepayment to third-party suppliers when the Company believes that the net realizable value (being the estimated selling price of final products, less the costs of completion and selling expenses) is less than carrying amount. For the years ended December 31, 2022, 2023 and 2024, the Company recorded write-downs of US\$12,828, US\$5,627 and US\$9,745 for the prepayment to third-party suppliers in cost of revenues.

Note b: During the years ended December 31, 2022, 2023 and 2024, the Company recorded provision of allowance for other receivables of US\$13, US\$0.3 and US\$1,596, respectively.

6. **Cryptocurrency**

Cryptocurrency consist of the following:

(in thousands, except for quantity)	As of December 31, 2024			As of December 31, 2023
	Quantity	Cost Basis	Fair Value	(Note) Carrying Value
Bitcoin	642	42,003	61,138	26,867
Others	672,680	679	683	1,475
Total Cryptocurrency		42,682	61,821	28,342

Note: Prior to the adoption of ASU 2023-08 on January 1, 2024, the carrying value of cryptocurrency represents the post-impairment value of all cryptocurrency held. After the adoption of ASU 2023-08 the cost basis of cryptocurrency represents the fair value of cryptocurrency at the time of service contract inception. The Company has adopted an accounting policy to aggregate individual contracts with individual terms less than 24 hours within each intraday period and apply a consistent valuation point, the start of day Coordinated Universal Time (00:00:00 UTC), to value the Bitcoin received.

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Additional information about cryptocurrency consists of the following:

	For the years ended December 31,	
	2023	2024
Beginning balance	12,531	28,342
Cumulative effect of the adoption of ASU 2023-08	—	18,893
Revenue recognized on acceptance of cryptocurrency*	58,959	90,273
Cryptocurrency received under long-term loans agreements*	—	14,015
Purchase of cryptocurrencies for professional services prepayment	—	1,761
Cryptocurrency received as customer deposits*	4,922	5,481
Pledged and derecognized cryptocurrency under long-term loans agreements*	—	(38,561)
Cryptocurrency prepaid for professional services	—	(1,761)
Cryptocurrency transferred to fixed term product*	—	(6,534)
Return of cryptocurrency as customer deposits*	—	(10,561)
Cost of revenues recognized on payment of cryptocurrency*	(8,854)	(9,821)
Proceeds from sale of cryptocurrency	(40,645)	(71,494)
Cryptocurrency prepaid as deposits*	—	(639)
Change in fair value of cryptocurrency	—	42,427
Realized gain on sale of cryptocurrency	6,135	—
Impairment	(4,706)	—
Ending balance	28,342	61,821

* represents non-cash investing or financing activity.

7. **Cryptocurrency receivable**

Cryptocurrency receivable consist of the following:

	As of December 31, 2024	
	Quantity	Fair Value
(in thousands, except for quantity)		
Bitcoins transferred to fixed term product (Note a)	100	9,553
Bitcoins prepaid for professional services	30	2,859
Bitcoin pledged for current portion of long-term loans (Note 11)	400	38,113
Cryptocurrency receivable, current		50,525
Bitcoin pledged for loan-term loans (Note 11)	200	19,057
Cryptocurrency receivable, non-current		19,057

Note a: On September 27, 2024, the Company transferred 100 Bitcoins to a crypto assets exchange institution to purchase a fixed term investment product with an annual percentage rate of return (the “APR”) of 1.5% for 30 calendar days. On December 23, 2024, the Company transferred 100 Bitcoins to a crypto assets exchange institution to purchase a fixed term investment product with a minimum annual return of 1% for one year.

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8. **Property, equipment and software, net**

Property, equipment and software consist of the following:

	As of December 31,	
	2023	2024
Cost:		
Mining equipment	95,215	80,965
Computers and electronic equipment	10,940	11,948
Leasehold improvements	5,772	5,051
Mechanical equipment	114	112
Software	3,283	3,688
Construction in progress	—	9,980
Motor vehicles	243	242
Land	—	120
Total cost	115,567	112,106
Less: Accumulated depreciation and amortization	(86,101)	(71,943)
Property, equipment and software, net	<u>29,466</u>	<u>40,163</u>

Depreciation and amortization expenses recognized for the years ended December 31, 2022, 2023 and 2024 are summarized as follows:

	For the Years Ended December 31,		
	2022	2023	2024
Cost of revenues	31,002	54,478	22,941
Research and development expenses	900	400	1,906
Sales and marketing expenses	8	36	5
General and administrative expenses	1,779	4,727	3,405
Total	<u>33,689</u>	<u>59,641</u>	<u>28,257</u>

9. **Leases**

The Company leases facilities under non-cancellable operating leases expiring on different dates. The terms of substantially all these leases are three years or less. When determining the lease term, the Company includes options to extend or terminate the lease when it is reasonably certain that it will exercise that option, if any. All the Company's leases qualify as operating leases. Variable lease cost and short-term leases (lease terms less than 12 months) are recognized as incurred.

(a) The components of lease expenses were as follows:

	For the Years Ended December 31,		
	2022	2023	2024
Lease cost:			
Reduction in the carrying amount of ROU assets	2,254	2,481	1,910
Interest of operating lease liabilities	193	115	90
Expenses for short-term lease within 12 months	216	417	563
Total lease cost	<u>2,663</u>	<u>3,013</u>	<u>2,563</u>

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(b) Supplemental cash flow information related to leases was as follows:

	For the Years Ended December 31,		
	2022	2023	2024
Cash paid for amounts included in the measurement of operating lease liabilities:			
Operating cash flows from operating leases	2,944	2,356	2,289
Operating lease right-of-use assets obtained in exchange for lease obligations:			
Operating leases	2,398	2,358	3,889
Operating lease liability settled through termination of lease:			
Operating leases	358	2,301	144

(c) Supplemental balance sheet information related to leases was as follows:

	As of December 31,		
	2022	2023	2024
Weighted-average remaining lease term			
Operating leases	1.9 year	1.2 year	2.2 year
Weighted-average discount rate			
Operating lease	4.58% per annum	4.55% per annum	3.94% per annum

(d) Maturities of operating lease liabilities were as follows:

Years Ending December 31,	As of December 31, 2024
2025	1,326
2026	1,451
2027	287
Total undiscounted lease payments	3,064
Less: imputed interest	(126)
Total operating lease liabilities	2,938
Amounts due within 12 months	1,237
Non-current operating lease liability	1,701

10. Accrued liabilities and other liabilities

	As of December 31,	
	2023	2024
Accrued liabilities and other current liabilities		
Salary and welfare payable	19,623	16,717
Customer deposits	7,185	12,865
Professional services payable	56	5,978
Customer refund	3,812	3,682
VAT received from customers related to contract liabilities	1,429	1,251
Other tax payables	7,019	600
Warranty reserve (Note b)	878	582
Provision for reserve for inventory purchase commitments (Note a)	20,706	—
Others	3,532	1,731
Total	64,240	43,406
Other non-current liabilities		
Deferred government grant	9,191	9,055
Refund from depository bank – non-current	516	—
Total	9,707	9,055

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Note a: The Company entered into several contracts to purchase foundry service. These contracts represent firm purchase commitments which are evaluated for potential losses. As of December 31, 2023 and 2024, the Company's purchase obligation to third-party suppliers for foundry service was US\$42,904 and US\$97,709, respectively.

In connection with the preparation of the Company's consolidated financial statements for the year ended December 31, 2023 the Company assessed the loss contingency under the foundry service contracts taking into account the estimated selling price of mining equipment. The provision was determined by applying a methodology similar to that used in the lower of cost or net realizable value with respect to inventory, using estimates of the costs to convert raw materials into final products in order to determine net realizable value. For the years ended December 31, 2023 and 2024, a provision of US\$9,816 and nil has been recognized in cost of revenues for the Company's inventory purchase commitments under foundry service contracts as a result of the decline in the estimated selling price of mining equipment based on the most recent subsequent selling price.

Note b: For mining equipment, the Company provides its customers for 360 days warranty, subject to certain conditions, such as normal use. The Company provides for the estimated costs of warranties at the time revenue is recognized. Factors that affect the Company's warranty obligation include product defect rates and costs of repair or replacement.

Movement of provision for warranty is as follows:

	For the year ended December 31,	
	2023	2024
Accrued warranty—beginning of year	1,716	878
Accrual for warranties issued during the year	1,902	2,598
Warranty claims paid	(1,532)	(2,512)
Warranty expired	(980)	(878)
Foreign currency translation adjustment	(228)	496
Accrued warranty—end of year	<u>878</u>	<u>582</u>

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11. Long term loans

On June 12, 2024, the Company, through a wholly-owned subsidiary, entered into Master Loan and Pledge Agreements (the “Agreements 1”) with a third party (the “Lender 1”). Pursuant to the Agreements 1, the Lender 1 will provide loans in tranches in USDT (also known as Tether, a stablecoin pegged to the U.S. Dollar) with a term of 18-month and an interest rate of 2.75% per annum. The Agreements 1 also require the Company to transfer 330 Bitcoins to the Lender 1 as collateral, and the loan amount will be 68% of the then-current fair market value (the “Loan-to-Value Ratio”) of the pledged Bitcoins. If the fair market value of Bitcoins fallen to below 70% of the fair market value at the loan receipt date, the Company is required to add Collateral. The repayment of the loan principal may be made in USD, USDT or if mutually agreed upon in writing prior to repayment, any other digital currency.

Pursuant to the Agreements 1, in June 2024, the Company pledged 330 Bitcoins as collateral to the Lender 1 with a fair value of US\$21,041 at closing and obtained a loan with principal amount of 14,308,156 USDT. The net proceeds received in June 2024, after deducting issuance cost of 178,615 USDT, were 11,252,124 USDT (with a fair value of US\$11,248). The issuance costs are reported as a direct deduction from the principal of the associated loan. The remaining net proceeds of 2,769,869 USDT (with a fair value of US\$2,767), after deducting issuance cost of 107,548 USDT, were subsequently received in July 2024. For the year ended December 31, 2024, the Company was not required to add additional Bitcoins as collateral.

On June 21, 2024, the Company, through a wholly-owned subsidiary, entered into a Master Loan Agreement (the “Agreement 2”) with another third party (the “Lender 2”). Pursuant to the Agreement 2, the Lender 2 will provide a loan in amount of US\$8,041 with a term of 18-months and an interest rate of 6.75% per annum. The Agreement 2 also requires the Company to transfer 200 Bitcoins to the Lender 2 as collateral. If the fair market value of Bitcoin fallen such that the Loan-to-Value Ratio equals or exceeds 80%, the Company is required to add Collateral.

Pursuant to the Agreement 2, in June 2024, the Company pledged 200 Bitcoins as collateral to the Lender 2 with a fair value of US\$12,370 at closing and obtained a loan in amount of US\$8,041. The net proceeds received in June 2024, after deducting issuance costs of US\$121, were US\$7,920. The issuance costs are reported as a direct deduction from the principal of the associated loan. For the year ended December 31, 2024, the Company was not required to add additional Bitcoins as collateral.

On August 9, 2024, the Company, through a wholly-owned subsidiary, entered into a Master Loan Agreement (the “Agreement 3”) with another third party (the “Lender 3”). Pursuant to the Agreement 3, the Lender 3 will provide a loan in amount of US\$2,058 with a term of 18-months and an interest rate of 5.00% per annum. The Agreement 3 also requires the Company to transfer 70 Bitcoins to the Lender 3 as collateral. If the fair market value of Bitcoins fallen to below 50% of the fair market value at the loan receipt date, the Company is required to add Collateral.

Pursuant to the Agreement 3, in August 2024, the Company pledged 70 Bitcoins as collateral to the Lender 3 with a fair value of US\$4,117 at closing and obtained a loan in amount of US\$2,058. The net proceeds received in August 2024, after deducting issuance costs of US\$41, were US\$2,017. The issuance costs are reported as a direct deduction from the principal of the associated loan. For the year ended December 31, 2024, the Company was not required to add additional Bitcoins as collateral.

As of December 31, 2024, US\$16,658 from Lender 1 and Lender 2 were classified as current portion of the long-term loans. Interest expense pertaining to the above loans amounted to US\$521 was recorded for the year ended December 31, 2024.

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12. Derivatives

During the years presented, the Company's derivatives were all embedded forward contracts to receive or deliver a fixed amount of cryptocurrency in the future.

Impact of derivatives on the Consolidated Balance Sheets

The following table summarizes the balance sheet impact of derivative instruments outstanding as of December 31, 2024 and December 31, 2023 as measured in U.S. dollar equivalents, none of which were designated as hedging instruments at December 31, 2024:

Consolidated Balance Sheets Location	Notional	Derivative Fair Value	Total
December 31, 2024			
Prepayments and other current assets ⁽¹⁾	92	161	253
Cryptocurrency receivable	46,856	22,726	69,582
Accounts payable ⁽¹⁾	2,528	67	2,595
Accrued liabilities and other current liabilities ⁽¹⁾	5,995	1,568	7,563
Long-term loans ⁽¹⁾	14,015	(16)	13,999
December 31, 2023			
Prepayments and other current assets	92	21	113
Accrued liabilities and other current liabilities ⁽¹⁾	4,503	2,682	7,185

(1) Represents the portion of the Consolidated Balance Sheet line item that is denominated in cryptocurrency.

Impact of derivatives on the Consolidated Statements of Comprehensive Income (Loss)

Change in fair value of derivative instruments recorded in the Consolidated Statements of Comprehensive Income (Loss) were as follows:

	For the year ended December 31,	
	2023*	2024
Prepayments and other current assets	21	140
Cryptocurrency receivable	—	22,726
Accounts Payable	—	(629)
Accrued liabilities and other current liabilities	(2,643)	(4,647)
Long-term loans	—	16
Total	(2,622)	17,606

* For the year ended December 31, 2023, changes in fair value were recorded in other income, net in the Consolidated Statements of Comprehensive Income (Loss).

The Company's derivative assets and liabilities measured and recorded at fair value on a recurring basis are classified within Level 2 of the fair value hierarchy. The Company has valued all Level 2 assets and liabilities based on quoted market prices for the underlying cryptocurrency.

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13. Warrants

In connection with the issuance of ordinary shares in May 2021, the Company also issued warrants to the investors, which entitle the investors to purchase up to an aggregate of 4,047,620 ADS (representing 60,714,300 Class A ordinary Shares) at \$16.38 per ADS (representing \$1.09 per Class A ordinary share). Also, the Company issued warrants to two placement agents, which entitle them to purchase up to an aggregate of 674,603 ADSs (representing 10,119,045 Class A ordinary shares) at \$15.75 per ADS (representing \$1.05 per Class A ordinary share).

The warrants are accounted for as a liability and remeasured to fair value at the end of each reporting period utilizing the binomial option pricing model, which involves significant assumptions including the risk-free interest rate, the expected volatility, expected dividend yield and expected term, the Company classifies the valuation techniques that use these inputs as Level 3.

	Fair Value at June 23, 2022 (remeasurement date)
Risk Free Rate	2.32%-2.63 %
Volatility	126.66%-140.39 %
Expected dividend yield	0 %
Expected term	1.9 years-2.1 years

On June 23, 2022, the Company entered into separate warrant repurchase agreements with all warrant holders. The Company paid US\$6.6 million (US\$1.4 per ADS) to repurchase the outstanding warrants of 4,722,223 ADSs (representing 70,833,345 Class A ordinary shares), upon which the warrant liability was extinguished. The repurchased shares were not retired and is shown as treasury stock.

Movement of warrant liability for the year ended December 31, 2022 is as follows:

	For the years ended December 31, 2022
Beginning balance	10,406
Change in fair value of financial instruments other than derivatives	(3,795)
Repurchase of warrant liability	(6,611)
Ending balance	—

14. Ordinary shares

The Company's authorized share capital is designated into Class A ordinary shares and Class B ordinary shares. Holders of Class A ordinary shares and Class B ordinary shares have the same rights except for voting and conversion rights. Each Class A ordinary share is entitled to one vote and each Class B ordinary share is entitled to fifteen votes. In addition, certain matters including those related to the change of control of the Company require an additional approval by the holders of a majority of Class A ordinary shares voting as a separate class. Each Class B ordinary share is convertible into one Class A ordinary share at any time by the holder thereof. Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances. Class B ordinary shares will be automatically converted into the same number of Class A ordinary shares under certain circumstances, including any transfer of Class B ordinary shares by the holder thereof to any person or entity which is not an affiliate of such holder.

As of December 31, 2024, the authorized ordinary shares are 999,999,675,000, of which 5,593,444,487 shares were issued and 4,614,163,022 shares were outstanding. These outstanding shares consist of (1) 4,302,538,578 Class A ordinary shares and (2) 311,624,444 Class B ordinary shares, which were held by the Chairman and CEO of the Company.

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At-the-Market Offering Agreements

On April 8, 2022, the Company entered into an At-the-market offering agreement, providing for a potential at-the-market equity offering program, with H.C. Wainwright & Co., LLC. For the year ended December 31, 2023, the Company issued 1,532,219 ADSs (22,983,285 Class A ordinary shares) with net proceeds of US\$4,188. Effective November 10, 2023, the Company terminated its at-the-market offering agreement with H.C. Wainwright & Co., LLC.

On November 10, 2023, the Company entered into an At-the-market Issuance Sales Agreement with B. Riley Securities, Inc., pursuant to which the Company may issue up to US\$68,000 of the ADSs. For the year ended December 31, 2023, the Company issued 31,347,044 ADSs (470,205,660 Class A ordinary shares) with net proceeds of US\$61,242.

On November 24, 2023, the Company's board of directors authorized the issuance of 125,000 Series A Convertible Preferred Shares by re-designation of the authorized but unissued Class A Ordinary Shares.

As of December 31, 2023, the authorized ordinary shares are 999,999,875,000, of which 3,772,078,667 shares were issued and 3,514,973,327 shares were outstanding. These outstanding shares consist of (1) 3,203,348,883 Class A ordinary shares and (2) 311,624,444 Class B ordinary shares, which were held by the Chairman and CEO of the Company.

On December 23, 2024, the Company entered into an At-the-market offering agreement (the "2024 ATM Agreement") with Macquarie Capital Limited, Keefe, Bruyette & Woods, Inc., China Renaissance Securities (Hong Kong) Limited, Compass Point Research & Trading, LLC, Craig-Hallum Capital Group LLC, Northland Securities, Inc., Rosenblatt Securities Inc., The Benchmark Company, LLC, and B. Riley Securities Inc. ("B. Riley") as sales agents (the "sales agents"). The Company issued 50,000,000 ADSs (750,000,000 Class A Ordinary Shares) to its share depository bank as a reserve in relation to the 2024 ATM Agreement. No consideration was received by the Company for this issuance of ordinary shares. These ordinary shares are legally issued but are treated as escrowed shares for accounting purpose, and therefore, have been excluded from the computation of net earnings (loss) per ordinary share for accounting purposes. For the year ended December 31, 2024, no ADS was utilized under the 2024 ATM Agreement.

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15. **Convertible preferred shares**

Series A Convertible Preferred Shares

On November 27, 2023, the Company entered into a Securities Purchase Agreement with an institutional investor (the “Buyer”), pursuant to which the Company shall issue and sell to the Buyer up to 125,000 Series A Convertible Preferred Shares (the “Preferred Shares”) in three tranches at the price of US\$1,000 for each Preferred Share. According to the Securities Purchase Agreement, the Company will issue 25,000 Preferred Shares (“First Tranche”) to the Buyer on the closing date of the First Tranche (“First Closing Date”). Upon the First Closing Date, the Company is obligated to issue a number of Preferred Shares (“Second Tranche”) that is not less than 25,000 and not more than 50,000 (the “Forward Contract Liabilities”). The closing of the third tranche of preferred shares financing (the “Third Tranche”), would be contingent upon mutual agreement between the Company and the Buyer. Neither the Company is obliged to sell nor the Buyer is obliged to purchase for the Third Tranche. In connection with the issuance of the Preferred Shares, the Company also should deliver 8,000,000 ADSs (120,000,000 Class A ordinary shares) collectively as pre-delivery shares (the “Pre-delivery Shares”) to the Buyer. The Pre-delivery Shares shall be returned to the Company when the Buyer does not hold any preferred shares.

The rights, preferences and privileges of the Series A Convertible Preferred Shares are as follows:

Conversion Rights

At any time after the issuance, the holder has the right to convert any portion of the outstanding and the unpaid Conversion Amount (the “Conversion Amount”, equals to US\$1,072.80 per preferred share plus any accrued and unpaid dividends, and 15% p.a. late charges if any) into variable number of ADSs by dividing the difference of the conversion price less the issuance fee, where conversion price is the lower of (1) 120% of the Weighted Average Price of the ADSs on the trading day immediately preceding the applicable issuance date of the Series A Preferred Shares (i.e. a fixed monetary amount US\$1.81); and (2) 92.5% of the lowest daily average market price over 5 days before conversion, as specified in the Securities Purchase Agreement.

Redemption Rights

The Company shall redeem the Preferred Shares remained outstanding on the Maturity Date in cash in an amount equal to 105% of the Conversion Amount. The Maturity Date is the date that is 12 months immediately following the issuance of the Preferred Shares, which may be extended at the option of the Buyer when certain events occur.

Voting Rights

No voting rights are carried by the Series A Preferred Shares.

Dividend Rights

The Buyer will be entitled to receive dividends in the same manner of Class A Ordinary Shares holders on a as converted basis.

Liquidation Preferences

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, the Buyer shall be entitled to receive in cash out of the assets of the Company, whether from capital or from earnings available for distribution to its shareholders, an amount per Series A Preferred Share equal to the greater of (1) Conversion Amount and (2) the amount that would have been received had the Series A Preferred Shares been converted into the Class A ordinary shares issuable upon conversion of the Series A Preferred Shares immediately prior to liquidation event.

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On December 11, 2023, the Company closed the First Tranche and issued 25,000 convertible Preferred Shares to the Buyer with total net proceeds of US\$24,575. Concurrently, the Company also delivered 8,000,000 ADSs (120,000,000 Class A ordinary shares) collectively as pre-delivery shares (the “Pre-delivery Shares”) to the Buyer. As of December 31, 2023, all the Preferred Shares issued pursuant to the First Tranche were converted to 23,650,082 outstanding ADSs (354,751,230 Class A ordinary shares) at the conversion prices from \$1.06 to \$1.42, which are the lower of US\$1.81 and 92.5% of the lowest daily average market price over 5 days before the conversion.

As the First Tranche of Preferred Shares, Forward Contract, Pre-delivery shares can be separately exercised, i.e. each can continue to exist unchanged when the other is exercised, the Company concluded that they were freestanding.

For the First Tranche, the Company had an unconditional obligation to issue variable number of the Preferred Shares, and the monetary value of the obligation is predominantly based on a fixed amount that is known at the inception. The Company classified the Preferred Shares as a liability, recorded initially at fair value upon issuance date, and remeasured at fair value with changes recognized in earnings.

The Forward Contract Liabilities are exercisable by the Buyer for the Second Tranche, so as to embody an obligation of the Company to repurchase the Company’s equity shares by transferring assets. In accordance with ASC 480, the Forward Contract Liabilities is accounted for as a liability, recorded initially at fair value upon issuance date, and remeasured to fair value at the end of each reporting period with changes recognized in earnings.

The Pre-delivery Shares are considered a form of stock borrowing facility and was accounted for as own-share lending arrangement. The Company did not receive any proceeds or pay any consideration related to the borrowed shares, except that the Company received a one-time nominal fee of US\$6.00 upon the issuance of the Pre-delivery Shares and will pay the same amount to the Buyer upon the return of Pre-delivery Shares, respectively. As of December 31, 2023, no Pre-delivery Shares were returned to the Company. The Company accounted for the share lending arrangement as an issuance cost associated with the First Tranche, and recorded at fair value upon issuance date against additional paid-in capital. Although legally issued, the Pre-delivery Shares were not considered outstanding, and therefore excluded from basic and diluted earnings (loss) per share unless default of the share lending arrangement occurs, at which time the Pre-delivery Shares would be included in the basic and diluted earnings (loss) per share calculation.

The fair value of the First Tranche (US\$44,421), Forward Contract Liabilities (US\$38,842) and Pre-delivery Shares (US\$511) upon issuance date in aggregate exceeded the net proceeds from the financing (US\$24,575) by US\$59,199, which was recognized as the excess of fair value of Series A Convertible Preferred Shares financing for the year ended December 31, 2023.

The fair value of the First Tranche upon the conversion dates was US\$53,837, and the change in fair value of the First Tranche was US\$9,416 for the year ended December 31, 2023. As of December 31, 2023, the Forward Contract Liabilities was not exercised by the Buyer and the Second Tranche was not closed.

On January 22, 2024, the Company completed the second tranche of the preferred shares financing. Pursuant to the Second Tranche Preferred Shares Financing, the Company issued 50,000 Preferred Shares in total at the price of US\$1,000.00 per Preferred Share and caused The Bank of New York Mellon to deliver an additional 2,800,000 ADSs collectively as pre-delivery shares (the “Pre-delivery Shares”), each representing fifteen Class A ordinary shares of the Company, at the price of US\$0.00000075 for each ADS. On September 27, 2024, the Company completed the Third Tranche financing. Pursuant to the Third Tranche Financing, the Company issued 50,000 Preferred Shares in total at the price of US\$1,000.00 per Preferred Share.

In connection with the Third Tranche closing, the Buyer agreed to return to the Company 2,800,000 ADSs (representing 42,000,000 Class A ordinary shares) of the Pre-Delivery Shares previously delivered to the Buyer. The Company acknowledged that 1,345,203 ADSs of 2,800,000 ADSs of the Pre-Delivery Shares being returned to the Company would be returned in the form of 20,178,045 Class A ordinary shares, which were transferred from ordinary shares to treasury stocks in September and cancelled in November 2024. The remaining 1,454,797 ADSs were returned to the Company in December 2024.

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The fair value of the Second Tranche (US\$68,496) and Pre-delivery Shares (US\$236) reduced by Forward Contract Liabilities (US\$18,496) upon issuance date in aggregate exceeded the net proceeds from the financing (US\$49,860) by US\$376, which was recognized as the excess of fair value of Convertible Preferred Shares financing for the year ended December 31, 2024. The change in fair value of the Forward Contract Liabilities was US\$21,848, which was recognized as the changes in fair value of financial instruments other than derivatives for the year ended December 31, 2024.

The fair value of the Third Tranche (US\$78,272) upon issuance date in aggregate exceeded the net proceeds from the financing (US\$49,975) by US\$28,297, which was recognized as the excess of fair value of Convertible Preferred Shares financing for the year ended December 31, 2024.

For the year ended December 31, 2024, all of 50,000 Preferred Shares issued pursuant to the Second Tranche were converted to 49,428,105 outstanding ADSs (741,421,575 Class A ordinary shares) at the conversion prices from \$0.73 to \$1.31, which are the lower of US\$1.81 and 92.5% of the lowest daily average market price over 5 days before the conversion. The fair value of the Second Tranche upon the conversion dates was US\$88,154 and the change in fair value of the Second Tranche was US\$19,658, which was recognized as the changes in fair value of financial instruments other than derivatives for the year ended December 31, 2024.

For the year ended December 31, 2024, none of Preferred Shares issued pursuant to the Third Tranche was converted to outstanding ADSs. The change in fair value of the Third Tranche was US\$10,159, which was recognized as the changes in fair value of financial instruments other than derivatives for the year ended December 31, 2024.

The movement of Preferred Shares and Forward Contract Liability for the years ended December 31, 2023 and 2024 consist of the following:

	First Tranche	Forward Contract Liabilities	Second Tranche	Third Tranche
Beginning balance as of January 1, 2023	—	—	—	—
Fair value upon issuance	44,421	38,842	—	—
Change in fair value	9,416	1,502	—	—
Conversion to outstanding ADSs	(53,837)	—	—	—
End balance as of December 31, 2023	—	40,344	—	—
Fair value upon issuance	—	—	50,000	78,272
Converted from forward contract liabilities	—	—	18,496	—
Change in fair value	—	(21,848)	19,658	(10,159)
Conversion to second tranche	—	(18,496)	—	—
Conversion to outstanding ADSs	—	—	(88,154)	—
Ending balance as of December 31, 2024	—	—	—	68,113

The Company estimates the fair value of First Tranche, the Forward Contract Liability, Second Tranche and Third Tranche using the Monte Carlo model, which involves significant assumptions including the risk-free interest rate, the expected volatility and expected bond yield. The Company classifies the valuation techniques that use these inputs as Level 3.

	Fair Value of First Tranche and Forward Contract Liability December 11, 2023 (issuance date)	December 14, 2023 to December 21, 2023 (remeasurement dates)
Risk Free Rate	4.98 %	4.69%-4.81 %
Volatility	100.55 %	96.00%-103.81 %
Expected bond yield	7.83 %	7.37%-7.48 %

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	Fair Value of Second Tranche	
	January 22, 2024 (issuance date)	January 26, 2024 to September 13, 2024 (remeasurement dates)
Risk Free Rate	4.77 %	4.09%-5.00 %
Volatility	96.44 %	83.26%-110.00 %
Expected bond yield	9.35 %	7.68%-11.06 %

	Fair Value of Third Tranche	
	September 27, 2024 (issuance date)	December 31, 2024 (remeasurement dates)
Risk Free Rate	3.93 %	4.30 %
Volatility	100.65 %	93.28 %
Expected bond yield	11.70 %	12.01 %

The assumptions are inherently uncertain and subjective. Changes in any unobservable inputs may have a significant impact on the fair value of First Tranche and Forward Contract Liability.

Series A-1 Convertible Preferred Shares

On November 19, 2024, the Company entered into a Securities Purchase Agreement with an institutional investor (the “Buyer”), pursuant to which the Company shall issue and sell to the Buyer up to 30,000 Series A-1 Convertible Preferred Shares (the “Series A-1 Preferred Shares”) at the price of US\$1,000 for each Preferred Share.

The rights, preferences and privileges of the Series A-1 Convertible Preferred Shares are as follows:

Conversion Rights

At any time after the issuance, the holder has the right to convert any portion of the outstanding and the unpaid Conversion Amount (the “Conversion Amount”, equals to US\$1,072.80 per preferred share plus any accrued and unpaid dividends, and 15% p.a. late charges if any) into variable number of ADSs by dividing the difference of the conversion price less the issuance fee, where conversion price is the lower of (1) US\$4.00; and (2) 92.5% of the lowest daily average market price over 5 days before conversion, as specified in the Securities Purchase Agreement.

Redemption Rights

The Company shall redeem the Preferred Shares remained outstanding on the Maturity Date in cash in an amount equal to 105% of the Conversion Amount. The Maturity Date is the date that is 12 months immediately following the issuance of the Preferred Shares, which may be extended at the option of the Buyer when certain events occur.

Voting Rights

No voting rights are carried by the Series A-1 Preferred Shares.

Dividend Rights

The Buyer will be entitled to receive dividends in the same manner of Class A Ordinary Shares holders on a as converted basis.

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Liquidation Preferences

In the event of any liquidation, dissolution or winding up of the Company, either voluntary or involuntary, the Buyer shall be entitled to receive in cash out of the assets of the Company, whether from capital or from earnings available for distribution to its shareholders, an amount per Series A-1 Preferred Share equal to the greater of (1) Conversion Amount and (2) the amount that would have been received had the Series A-1 Preferred Shares been converted into the Class A ordinary shares issuable upon conversion of the Series A-1 Preferred Shares immediately prior to liquidation event.

On November 25, 2024, the Company closed the Series A-1 Preferred Shares financing and issued 30,000 Series A-1 Preferred Shares to the Buyer with total net proceeds of US\$29,975. The fair value of the Series A-1 Preferred Shares (US\$52,027) upon issuance date exceeded the net proceeds from the financing (US\$29,975) by US\$22,052, which was recognized as the excess of fair value of Convertible Preferred Shares financing for the year ended December 31, 2024.

For the year ended December 31, 2024, all of 30,000 Series A-1 Preferred Shares were converted to 20,541,486 outstanding ADSs (308,122,290 Class A ordinary shares), at the conversion price from US\$1.40 to US\$1.65, which are the lower of US\$4.00 and 92.5% of the lowest daily average market price over 5 days before conversion. The fair value of the Series A-1 Preferred Shares upon the conversion dates was US\$43,804 and the change in fair value of the Series A-1 Preferred Shares was US\$8,222, which was recognized as the changes in fair value of financial instruments other than derivatives for the year ended December 31, 2024.

The movement of Series A-1 Preferred Shares for the year ended December 31, 2024 consist of the following:

	<u>Series A-1 Preferred Shares</u>
Beginning balance as of January 1, 2024	—
Fair value upon issuance	52,027
Change in fair value	(8,222)
Conversion to outstanding ADSs	(43,805)
Ending balance as of December 31, 2024	—

The Company estimates the fair value of Series A-1 Preferred Shares using the Monte Carlo model, which involves significant assumptions including the risk-free interest rate, the expected volatility and expected bond yield. The Company classifies the valuation techniques that use these inputs as Level 3.

	<u>Fair Value of Series A-1 Preferred Shares</u>	
	<u>November 25, 2024</u> <u>(issuance date)</u>	<u>November 26, 2024</u> <u>to December 5, 2024</u> <u>(remeasurement dates)</u>
Risk Free Rate	4.44 %	4.33%-4.46 %
Volatility	105.37 %	105.21%-105.69 %
Expected bond yield	12.39 %	12.28%-12.36 %

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16. Treasury stocks

2018 Equity Incentive Plan

In April 2018, the Company established a trust to hold 51,624,000 of the Company's issued ordinary shares. These ordinary shares were contributed by the Co-Founders and employees and held in a trust (the "Trust") for the benefit of the employees who are under the 2018 Equity Incentive Plan (Note 17).

As of December 31, 2023 and 2024, 12,338,955 issued ordinary shares held by the Trust are accounted as treasury stocks.

Amended 2018 Plan

In April 2021, the Board of Directors of the Company amended the 2018 Plan (the "Amended 2018 Plan") (Note 14). In May and September 2021, the Company issued 94,927,065 Class A ordinary shares and 63,774,885 Class A ordinary shares, which were then reserved under the Amended 2018 Plan. Under the Amended 2018 Plan, the Company withholds the shares issued to the employees to meet the income tax withholding requirement upon the vesting of the Restricted share units. For the year ended December 31, 2022, the Company withheld 17,102,175 Class A ordinary shares for US\$4,819 and sold 37,313,775 Class A ordinary shares for US\$20,908. For the year ended December 31, 2023, the Company withheld 13,904,625 Class A ordinary shares for US\$2,420 and sold 13,904,625 Class A ordinary shares for US\$2,420. For the year ended December 31, 2024, the Company withheld 8,532,915 Class A ordinary shares for US\$768 and sold 8,532,915 Class A ordinary shares for US\$768. The Company did not retire any of the repurchased Class A ordinary shares. As of December 31, 2023 and 2024, the Company has transferred all the treasury stocks reserved to ordinary shares upon vesting under the Amended 2018 Plan and nil of ordinary shares are accounted for as treasury stock under the Amended 2018 Plan.

Share Repurchase Program

As of January 1, 2022, 14,339,826 outstanding ADSs (215,097,390 shares) are accounted as treasury stocks. Effective March 16, 2022, the Board of Directors approved a share repurchase program to repurchase in the open market up to US\$100 million worth of its outstanding (i) American depositary shares, each representing 15 Class A ordinary shares, and/or (ii) Class A ordinary shares over the next 24 months starting from March 16, 2022 depending on a number of factors, including, but not limited to, price, trading volume and general market conditions, along with Canaan's working capital requirements and general business conditions, the relevant rules under United States securities laws and regulations, and the relevant stock exchange rules. During the year ended December 31, 2022, total of 10,307,665 outstanding ADSs (154,614,975 shares) were repurchased but have not been retired with a total consideration of US\$37,379, which is shown as treasury stock. For the years ended December 31, 2023 and 2024, no outstanding ADSs were repurchased.

As of December 31, 2024, a total of 124,287,210 repurchased ordinary shares are accounted as treasury stocks.

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17. Share-based compensation

In April 2021, the Board of Directors of the Company amended the 2018 Plan. Under the Amended 2018 Plan, in April 2021 and on every January 1 thereafter during which the 2018 Plan remains in effect, the maximum aggregate number of Class A ordinary shares which may be subject to awards under the 2018 Plan will be automatically increased by 15.0% of the total number of Class A ordinary shares issued and outstanding on December 31 of the preceding calendar year, if and whenever the unallocated Class A ordinary shares which may be issuable under the 2018 Plan account for less than 3% of the then total issued and outstanding Class A ordinary shares. In May and September 2021, the Company issued 94,927,065 Class A ordinary shares and 63,774,885 Class A ordinary shares, which were then reserved under the Amended 2018 Plan.

(a) Restricted share units

The following table summarizes the RSUs activity for the years ended December 31, 2022, 2023 and 2024:

	Number of shares	Weighted average grant date fair value US\$
Outstanding as of December 31, 2021	137,243,670	0.74
Granted	62,410,200	0.25
Forfeited	(22,844,235)	0.32
Vested	(53,018,580)	0.68
Outstanding as of December 31, 2022	123,791,055	0.60
Granted	102,323,925	0.15
Forfeited	(28,129,155)	0.29
Vested	(51,031,395)	0.60
Outstanding as of December 31, 2023	146,954,430	0.35
Granted	494,060,175	0.10
Forfeited	(21,423,390)	0.22
Vested	(49,645,830)	0.61
Outstanding as of December 31, 2024	569,945,385	0.12

In 2024, the Company granted 494,060,175 RSUs to the Company's employees under the Amended 2018 Plan. The Company used closing price of ordinary share to determine the fair value of the RSUs. Compensation expense related to RSUs with service conditions is recognized over the requisite service period, which is generally the vesting term of up to five years. The total fair value of RSUs vested during the years ended December 31, 2022, 2023 and 2024 was US\$35,475, US\$30,812 and US\$16,415, respectively. The aggregate fair value of the unvested RSUs as of December 31, 2024 was US\$69,958.

As of December 31, 2024, there was US\$55,074 unrecognized compensation expense related to RSUs, which is expected to be recognized over a weighted-average period of 43 months.

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(b) *Share options*

The following table summarizes the share options for the years ended December 31, 2022, 2023 and 2024:

	Number of shares	Weighted-Average per Share Exercise Price US\$	Weighted Average Remaining Contractual Term Years	Aggregate Intrinsic Value US\$
Outstanding as of December 31, 2021	114,000,000	0.76	9.10	—
Outstanding as of December 31, 2022	114,000,000	0.76	8.12	—
Granted	30,000,000	0.40		
Outstanding as of December 31, 2023	144,000,000	0.69	7.53	—
Cancelled	(84,000,000)	0.81		
Outstanding at of December 31, 2024	60,000,000	0.50	7.02	—
Expected to vest at December 31, 2024	60,000,000	0.50	7.02	—
Exercisable as of December 31, 2024	45,000,000	0.69	7.02	—

The aggregate intrinsic value as of December 31, 2024 in the table above is zero as the fair value of the Company's ordinary share on December 31, 2024 is lower than the exercise price.

As of December 31, 2024, there was US\$229 unrecognized compensation expense related to share options, which is expected to be recognized over a weighted-average period of 2 months.

The assumptions used to estimate the fair values of the share options granted were as follows:

	<u>For the Year Ended December 31,</u> <u>2023</u>
Risk-free rate of return ⁽¹⁾	3.85% to 3.92 %
Dividend yield ⁽²⁾	0 %
Expected volatility ⁽³⁾	124.86 %
Expected term ⁽⁴⁾	10 years
Exercise multiple ⁽⁵⁾	2.80
Fair value of ordinary share	US\$1.79 per ADS

- 1) The risk-free rate of return was estimated based on the yield of US Strip Bond with a maturity life equal to the remaining maturity life of the Company's options as of the valuation date.
- 2) Dividend yield is zero as the Company has never declared or paid any cash dividends on its shares, and the Company does not anticipate any dividend payments in the foreseeable future.
- 3) The expected volatility was estimated based on the historical volatility of comparable peer public companies and the Company with a time horizon close to the contract life of the Company's options.
- 4) Expected term is the contract life of the option.
- 5) The expected exercise multiple was estimated as the average ratio of the stock price to the exercise price of when employees would decide to voluntarily exercise their vested options. As the Company did not have sufficient information of past employee exercise history, it has considered the statistics by making reference to a widely-accepted academic research publication.

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18. Income Taxes

(a) Cayman Islands

Under the current tax laws of Cayman Islands, the Company is not subject to income, corporation or capital gains tax, and no withholding tax is imposed upon the payment of dividends.

(b) Singapore

The Company's subsidiaries incorporated in Singapore are subject to profits or income tax rates of 17.0%, on their estimated assessable profits for the years ended December 31, 2022, 2023 and 2024. Dividends income received from subsidiaries in mainland China are not subject to Singapore profits or income tax.

(c) Hong Kong and United States

The Company's subsidiaries incorporated in Hong Kong and United States are subject to profits or income tax rates of 16.5% and 21.0%, respectively, on their estimated assessable profits for the years ended December 31, 2022, 2023 and 2024. Dividends income received from subsidiaries in mainland China are not subject to Hong Kong and United States profits or income tax.

(d) PRC Enterprise Income Tax ("EIT")

On March 16, 2007, the National People's Congress of the PRC enacted an Enterprise Income Tax Law ("EIT Law"), under which Foreign Investment Enterprises ("FIEs") and domestic companies would be subject to EIT at a uniform rate of 25%. The EIT law became effective on January 1, 2008.

Canaan Creative Co., Ltd. ("Canaan Creative") obtained its High and New Technology Enterprises ("HNTE") certificate with a valid period of three years in 2019. Therefore, Canaan Creative is eligible to enjoy a preferential tax rate of 15% from 2019 to 2021 to the extent it has taxable income under the EIT Law, as long as it maintains the HNTE qualification and duly conducts relevant EIT filing procedures with the relevant tax authority. In October 2022, Canaan Creative received approval from the tax authority on the renewal of its HNTE status which entitled it to the preferential income tax rate of 15% effective retroactively from 2022 to 2024.

Canaan Creative (SH) Co., Ltd. ("Canaan Creative (SH)") obtained its HNTE certificate with a valid period of three years in 2022. Therefore, Canaan Creative (SH) is eligible to enjoy a preferential tax rate of 15% from 2022 to 2024 to the extent it has taxable income under the EIT Law, as long as it maintains the HNTE qualification and duly conducts relevant EIT filing procedures with the relevant tax authority. In addition, in accordance with Caishui (2016) No. 49 issued by the Stated Tax Bureau on May 4, 2016, Canaan Creative (SH) is qualified as an as an integrated circuit enterprise and enjoying a 5-year tax holiday (two-year full exemption followed by three-year half reduction) beginning from 2022 after utilizing all prior years tax losses. Therefore, Canaan Creative (SH) is eligible to enjoy a preferential tax rate of 0% from 2022 to 2023 and 12.5% from 2024 to 2026.

The Company's other PRC subsidiaries are subject to the statutory income tax rate of 25%.

(e) PRC Withholding Income Tax on Dividends

The EIT Law also provides that an enterprise established under the laws of a foreign country or region but whose "de facto management body" is located in the PRC be treated as a resident enterprise for PRC tax purposes and consequently be subject to the PRC income tax at the rate of 25% for its global income. The implementing Rules of the EIT Law merely define the location of the "de facto management body" as "the place where the exercising, in substance, of the overall management and control of the production and business operation, personnel, accounting, properties, etc., of a non-PRC company is located."

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The EIT Law also imposes a withholding income tax of 10% on dividends distributed by a FIE to its immediate holding company outside of China, if such immediate holding company is considered as a non-resident enterprise without any establishment or place within China or if the received dividends have no connection with the establishment or place of such immediate holding company within China, unless such immediate holding company's jurisdiction of incorporation has a tax treaty with China that provides for a different withholding arrangement. The Cayman Islands, where the Company incorporated, does not have such tax treaty with China. According to the arrangement between Mainland China and Hong Kong Special Administrative Region on the Avoidance of Double Taxation and Prevention of Fiscal Evasion in August 2006, dividends paid by a FIE in China to its immediate holding company in Hong Kong will be subject to withholding tax at a rate of no more than 5% if the immediate holding company in Hong Kong owns directly at least 25% of the shares of the FIE and could be recognized as a Beneficial Owner of the dividend from PRC tax perspective.

Income (loss) before income tax expense consisted of:

	For the Years Ended December 31,		
	2022	2023	2024
Mainland China	126,902	(251,871)	(55,016)
United States of America	(15,858)	(79,753)	(22,303)
Cayman	2,024	(69,376)	(48,026)
Singapore	(16,644)	(8,970)	(60,646)
Others	(8,090)	(55,523)	13,722
Total	<u>88,334</u>	<u>(465,493)</u>	<u>(172,269)</u>

A reconciliation between the effective income tax rate and the PRC statutory income tax rate is as follows:

	For the Years Ended December 31,		
	2022	2023	2024
PRC statutory income tax rates	25.0 %	(25.0)%	(25.0)%
Permanent book-tax difference	(2.4)%	(1.9)%	(4.0)%
Share-based compensation	5.5 %	1.0 %	3.5 %
Super deduction of R&D expense	(14.0)%	(2.9)%	(7.8)%
Others	6.1 %	0.0 %	0.3 %
Different tax rates in other jurisdictions	2.0 %	7.8 %	5.6 %
Effect of tax holiday	(16.9)%	4.7 %	8.8 %
Change in valuation allowance	12.6 %	3.4 %	55.6 %
Unrecognized tax benefit	—	—	4.0 %
Total	<u>20.3 %</u>	<u>(11.0)%</u>	<u>45.0 %</u>
Effects of tax holidays entitled by the PRC subsidiaries	15,354	21,998	15,126
Effects of tax holidays entitled by the PRC subsidiaries on basic income (loss) per Class A and Class B ordinary share (US\$ cent per share)	<u>0.60</u>	<u>0.85</u>	<u>0.37</u>

Composition of income tax expense (benefit)

The current and deferred portions of income tax expense (benefit) included in the consolidated statements of comprehensive income (loss) are as follows:

	For the Years Ended December 31,		
	2022	2023	2024
Current income tax expense (benefit)	26,241	(5,654)	11,333
Deferred income tax (benefit) expense	(7,791)	(45,686)	66,150
Income tax expense (benefit)	<u>18,450</u>	<u>(51,340)</u>	<u>77,483</u>

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Deferred tax assets and liabilities

Deferred taxes were measured using the enacted tax rates for the periods in which they are expected to be reversed. The tax effects of temporary differences that give rise to the deferred tax asset balances as of December 31, 2023 and 2024 are as follows:

	As of December 31,	
	2023	2024
Deferred tax assets		
Tax losses carried forward	57,519	107,412
Write-down of inventories	26,608	13,134
Property, equipment and software	6,597	5,078
Share-based compensation	5,646	4,149
Allowance for doubtful accounts	200	769
Operating lease right-of-use assets	260	335
Warranty reserve	281	(14)
Total gross deferred tax assets	97,111	130,863
Less: Valuation allowance	(30,042)	(125,678)
Deferred tax assets, net of valuation allowance	67,069	5,185
Deferred tax liabilities		
Operating lease liabilities	(260)	(335)
Intangible assets	—	(153)
Cryptocurrency and cryptocurrency receivables	—	(4,555)
Total gross deferred tax liabilities	(260)	(5,043)
Net deferred tax assets	66,809	295
Net deferred tax liabilities	—	(153)

As of December 31, 2023 and 2024, the Company had tax loss carry-forwards of approximately US\$339,766 and US\$645,876 which arose from its PRC and offshore subsidiaries. Most of the PRC subsidiaries are qualified as HNTE or technology small and medium enterprise (“SMEs”), the carryforwards period for net operating losses under the EIT Law is changed from five years to ten years. The net operating loss carryforwards by the PRC mainland companies will expire in varying amounts between 2026 and 2035 as follows.

Expiration year	US\$
2026	4,210
2027	13
2028	87
2029	1,595
2030	802
2031	—
2032	—
2033	—
2034	198,609
2035	149,850

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Other than the expiration, there are no other limitations or restrictions upon the Company's ability to use these operating loss carryforwards.

Valuation allowance is provided against deferred tax assets when the Company determines that it is more likely than not that the deferred tax assets will not be utilized in the future. In making such determination, the Company considered factors including future taxable income exclusive of reversing temporary differences and tax loss carry forwards. Valuation allowance was provided for tax loss carry-forward because it was more likely than not that such deferred tax assets will not be realized due to lack of profitable history to support the Company's estimate of its future taxable income. If events occur in the future that allow the Company to realize part or all its deferred income tax, an adjustment to the valuation allowances will result in a decrease in tax expense when those events occur.

As of December 31, 2023 and 2024, valuation allowances of US\$30,042 and US\$125,678 were provided because it was more likely than not that the Company will not be able to utilize certain tax loss carry-forwards and other deferred tax assets generated by its subsidiaries. If events occur in the future that allow the Company to realize more of its deferred tax assets than the presently recorded amount, an adjustment to the valuation allowances will increase income when those events occur.

Movement of valuation allowance is as follows:

	For the Years Ended December 31,		
	2022	2023	2024
Beginning balance	2,821	13,871	30,042
Additions during the year	11,050	16,171	95,636
Ending balance	13,871	30,042	125,678

Unrecognized tax benefits

The Company evaluates each uncertain tax position (including the potential application of interest and penalties) based on the technical merits, and measures the unrecognized benefits associated with the tax positions.

As of December 31, 2024, the unrecognized tax benefit of US\$5,011 was recorded in the income tax expense and the income tax payable, which was related to the uncertainty with regard to deductibility of certain expenses incurred between intra-entity transactions for the previous years, which were under examination by Chinese tax authorities. It is possible that the amount of unrecognized tax benefit will further change in the next 12 months; however, an estimate of the range of possible changes cannot be made at this moment. The Company will continue to review its tax positions and adjust for unrecognized tax benefits as they arise. As of December 31, 2024, unrecognized tax benefits, if ultimately recognized, will impact the effective tax rate.

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19. Basic and diluted earnings (loss) per share

Basic and diluted earnings (loss) per share have been calculated in accordance with ASC 260 on computation of earnings (loss) per share for the years ended December 31, 2022, 2023 and 2024 as follows:

	For the Years Ended December 31,		
	2022	2023	2024
Basic earnings (loss) per share calculation			
Numerator:			
Net income (loss)	69,884	(414,153)	(249,752)
Denominator:			
Weighted-average ordinary shares outstanding	2,560,106,403	2,579,202,596	4,072,386,826
Basic earnings (loss) per Class A and Class B ordinary share (US\$ cent per share)	2.73	(16.06)	(6.13)
Diluted earnings (loss) per share calculation			
Numerator:			
Net income (loss)	69,884	(414,153)	(249,752)
Denominator:			
Weighted-average ordinary shares outstanding	2,560,106,403	2,579,202,596	4,072,386,826
Add: weighted-average RSUs	17,785,666	—	—
Weighted-average number of shares used in calculating diluted earnings (loss) per Class A and Class B ordinary share	2,577,892,069	2,579,202,596	4,072,386,826
Diluted earnings (loss) per Class A and Class B ordinary share (US\$ cent per share)	2.71	(16.06)	(6.13)

The potentially dilutive securities that have not been included in the calculation of diluted net loss per share as their inclusion would be anti-dilutive are as follows:

	For the Year Ended December 31,		
	2022	2023	2024
RSUs	—	30,741,795	56,321,537
Share options	114,000,000	144,000,000	60,000,000
Convertible preferred shares	—	—	417,588,975

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(all amounts in thousands, except share and per share data, or as otherwise noted)

20. Contingencies

On April 15, 2021, a new putative class action was filed in the United States District Court for the Southern District of New York against the Company and certain officers of the Company. The complaint alleges that the Company's press release issued in February 2021 about increased visibility into revenue and the size and quality of orders the Company was receiving were materially false and misleading. Plaintiff claims that the truth about the Company's revenue was revealed in April 2021, when the Company announced its latest financial results. On December 14, 2021, the Court so-ordered this stipulation. On February 7, 2022, lead plaintiffs filed an amended complaint asserting the same claims under Sections 10(b) and 20(a) of the Exchange Act against the same set of defendants. The amended complaint alleges the Company's November 30, 2020 and February 10, 2021 press releases and the April 9, 2021 interview of the Company's chief executive officer in an article published by Decrypt contained false and misleading statements regarding the pre-sale orders the Company had received and the Company's ability to secure sufficient chip supply to meet the increasing demand for mining machines. On April 8, 2022, Canaan filed a motion to dismiss the amended complaint, which has been fully briefed as of July 7, 2022. On March 27, 2023, the Court granted the Company's motion to dismiss in full. The Court also granted lead plaintiffs leave to amend their amended complaint within 30 days of the Court's order. On May 10, 2023, lead plaintiffs informed the Court that they decided not to file a second amended complaint. On May 12, 2023, the Court entered the judgment dismissing this action with prejudice. Plaintiffs did not appeal.

Also, the Company is and, from time to time, may in the future become, involved in other legal proceedings in the ordinary course of business. The Company currently believes that the outcome of any of these existing legal proceedings, either individually or in the aggregate, will not have a material impact on the operating results, financial condition or cash flows of the Company. With respect to existing legal proceedings, the Company has either determined that the existence of a material loss is not reasonably possible or that it is unable to estimate a reasonably possible loss or range of loss. The Company may incur substantial legal fees, which are expensed as incurred, in defending against these legal proceedings.

21. Subsequent events

On March 6, 2025, the Company entered into a Securities Purchase Agreement with an institutional investor ("Buyer"), pursuant to which the Company agreed to issue and sell to the Buyer up to 200,000 Series A-1 Convertible Preferred Shares (the "2025 Series A-1 Preferred Shares") at the price of US\$1,000 for each 2025 Series A-1 Preferred Share in two tranches. On the closing date of the first tranches, in connection with the issuance of the Preferred Shares, the Buyer shall pay the Company US\$0.00000075 for each of the ADSs (the "Pre-Delivery Shares"). The closing of the second tranches would be contingent upon mutual agreement between the Company and the Buyer. In connection with the second tranches, the Company will issue to the Buyer a number of ADSs as Commitment Shares. The Commitment Shares is calculated as \$4,000,000.00 divided by the Nasdaq Minimum Price (as defined in the Nasdaq Rules) of the ADSs on the second closing date. The Pre-delivery Shares shall be returned to the Company when the Buyer does not hold any preferred shares.

On March 10, 2025, the Company closed the first tranches of the 2025 Series A-1 Preferred Shares financing and issued 100,000 Preferred Shares and 7,000,000 Pre-Delivery Shares to the investor, raising a total net proceeds of US\$99,650. As of the date of this report, 26,200 of 2025 Series A-1 Preferred Shares issued pursuant to the first tranche were converted to 40,367,260 outstanding ADSs (605,508,900 Class A ordinary shares) at the conversion prices from \$0.57 to \$0.93.

CANAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

22. Condensed financial information of the parent company

Rules 12-04(a) and 4-08(e)(3) of Regulation S-X require condensed financial information as to the financial position, cash flows and results of operations of a parent company as of and for the same periods for which the audited consolidated financial statements have been presented when the restricted net assets of the consolidated and unconsolidated subsidiaries together exceed 25% of consolidated net assets as of the end of the most recently completed fiscal year.

The following condensed financial statements of the Parent Company have been prepared using the same accounting policies as set out in the Company's consolidated financial statements except that the Parent Company used the equity method to account for its investment in its subsidiaries. Such investment is presented on the separate condensed balance sheets of the Parent Company as "Investments in and receivables from subsidiaries". The Parent Company, its subsidiaries were included in the consolidated financial statements whereby the inter-company balances and transactions were eliminated upon consolidation. The Parent Company's share of income (loss) from its subsidiaries is reported as "share of income (loss) from subsidiaries" in the condensed financial statements. Ordinarily, under the equity method, an investor in an equity method investee would cease to recognize its share of the losses of an investee once the carrying value of the investment has been reduced to nil absent an undertaking by the investor to provide continuing support and fund losses. For the purpose of the parent only financial information, the Company has continued to reflect its share, based on its proportionate interest, of the losses of its subsidiaries regardless of the carrying value of the investment even though the Company is not obligated to provide continuing support or fund losses.

The Parent Company is a Cayman Islands company and, therefore, is not subject to income taxes for all years presented. The footnote disclosures contain supplemental information relating to the operations of the Company and, as such, these statements should be read in conjunction with the notes to the consolidated financial statements of the Company. Certain information and footnote disclosures normally included in financial statements prepared in accordance with US GAAP have been condensed or omitted.

As of December 31, 2023 and 2024, there were no material commitments or contingencies, significant provisions for long-term obligations or guarantees of the Company, except for those which have been separately disclosed in the consolidated financial statements, if any.

CANAAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

Condensed Financial Information of the Parent Company

CONDENSED BALANCE SHEETS

	As of December 31,	
	2023	2024
	US\$	US\$
ASSETS		
Current assets:		
Cash	6,902	13,784
Prepayments and other current assets	644	464
Total current assets	7,546	14,248
Non-current assets:		
Investments in and receivables from subsidiaries	382,605	326,177
Total assets	390,151	340,425
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accrued liabilities and other current liabilities	1,104	6,058
Preferred shares forward contract liabilities	40,344	—
Convertible preferred shares	—	68,113
Non-current liabilities:		
Other non-current liabilities	516	—
Total liabilities	41,964	74,171
Shareholders' equity:		
Ordinary shares	—	—
Subscriptions receivable from shareholders	—	—
Treasury stocks	(57,055)	(57,055)
Additional paid-in capital	653,860	816,363
Statutory reserves	14,892	14,892
Accumulated other comprehensive loss	(43,879)	(57,456)
Accumulated deficit	(219,631)	(450,490)
Total shareholders' equity	348,187	266,254
Total liabilities and shareholders' equity	390,149	340,425

CANAAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

CONDENSED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

	For the year ended December 31,		
	2022	2023	2024
	US\$	US\$	US\$
Operating expenses:			
General and administrative expenses	(3,120)	(4,538)	(8,115)
Loss from operations	(3,120)	(4,538)	(8,115)
Interest income	1	323	—
Other income, net	316	337	581
Change in fair value of financial instruments other than derivatives	3,795	(10,918)	20,571
Excess of fair value of Convertible Preferred Shares	—	(59,199)	(50,725)
Share of income (losses) from subsidiaries	58,734	(340,158)	(212,064)
Net income (loss)	59,726	(414,153)	(249,752)
Foreign currency translation adjustment, net of nil tax	14,444	(6,966)	(13,577)
Total comprehensive income (loss)	74,170	(421,119)	(263,329)

CANAAN INC.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(all amounts in thousands, except share and per share data, or as otherwise noted)

CONDENSED STATEMENTS OF CASH FLOWS

	For the year ended December 31,		
	2022	2023	2024
	US\$	US\$	US\$
Cash flows from operating activities			
Receipt of refund from depository bank	—	520	—
Other cash used in operating activities	(3,078)	(4,459)	(4,044)
Net cash used in operating activities	(3,078)	(3,939)	(4,044)
Cash flows from investing activities			
Collection from (payment to) subsidiaries	43,869	(84,760)	(118,884)
Net cash provided by (used in) investing activities	43,869	(84,760)	(118,884)
Cash flows from financing activities			
Repurchase of warrants	(6,358)	—	—
Payment for repurchase of ordinary shares	(33,643)	—	—
Proceeds from issuance of ordinary shares, net of issuance costs	—	65,430	—
Proceeds from issuance of Convertible Preferred Shares, net of issuance costs	—	24,575	129,810
Net cash (used in) provided by financing activities	(40,001)	90,005	129,810
Net increase in cash	790	1,306	6,882
Effect of exchange rate changes on cash	52	(86)	—
Cash, beginning of year	4,840	5,682	6,902
Cash, end of year	5,682	6,902	13,784

CANAAN INC.

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (the "Agreement") is entered into as of [] by and between Canaan Inc., a Cayman Islands company (the "Company") and the undersigned, a [director/officer] of the Company ("Indemnitee").

RECITALS

1. Considering that the INDEMNITY section of the Company's memorandum and articles of association, as now or hereinafter in effect (the "Articles of Association") has provided for the exemption and compensation of losses or liabilities incurred by the Indemnitee for specific work activities, this agreement is a supplement to and in furtherance of the INDEMNITY section of the Articles of Association and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

2. The Company is willing to indemnify Indemnitee to the extent permitted by applicable law, and Indemnitee is willing to serve and continue to serve the Company on the condition that he be so indemnified.

AGREEMENT

In consideration of the premises and the covenants contained herein, the Company and Indemnitee do hereby covenant and agree as follows:

I. Definitions

The following terms shall have the meanings defined below:

Disinterested Director means a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

Expenses shall include damages, judgments, fines, penalties, settlements and costs, attorneys' fees and disbursements and costs of attachment or similar bond, investigations, liabilities, losses, taxes, any expenses paid or incurred in connection with investigating, defending, being a witness in, participating in (including on appeal), or preparing for any of the foregoing in, any Proceeding, and any taxes, interests, assessments or other charges imposed as a result of the actual or deemed receipt of any payments under this Agreement; provided that if the Indemnitee provides his or her primary professional services based on an hourly fee rate (the "Hourly Rate"), the Expenses shall also include

the product of the amount of time he or she shall spend for any Proceeding and the effective Hourly Rate.

Indemnifiable Event means any event or occurrence that takes place either before or after the execution of this Agreement, related to the fact that Indemnitee is or was a director or an officer of the Company, or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other entity, including services with respect to employee benefit plans, or was a director or officer of an entity that was a predecessor of the Company or another entity at the request of such predecessor entity, or related to anything done or not done by Indemnitee in any such capacity.

Independent Counsel means a law firm, or a member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five (5) years has been, retained to represent (i) the Company or Indemnitee in any matter material to either such party (other than with respect to matters concerning the Indemnitee under this Agreement, or of other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term "Independent Counsel" shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee's rights under this Agreement.

Participant means a person who is a party to, or witness or participant (including on appeal) in, a Proceeding.

Proceeding means any threatened, pending, or completed action, suit or proceeding, or any inquiry, hearing or investigation, whether civil, criminal, administrative, investigative or other, including any appeal thereof, in which Indemnitee may be or may have been involved as a party or otherwise by reason of an Indemnifiable Event, including, without limitation, any threatened, pending, or completed action, suit or proceeding by or in the right of the Company.

Reviewing Party means (i) the Board by a majority vote of a quorum consisting of Disinterested Directors, or (ii) if a quorum of the Board consisting of Disinterested Directors is not obtainable or, even if obtainable, said Disinterested Directors so direct, Independent Counsel in a written opinion to the Board, a copy of which shall be delivered to Indemnitee.

II. Agreement To Indemnify

1. General Agreement. In the event Indemnitee was, is, or becomes a Participant in, or is threatened to be made a Participant in, a Proceeding, the Company shall, subject to the terms and conditions of this Agreement, indemnify the Indemnitee from and against any and all Expenses which Indemnitee incurs or becomes obligated to incur in connection with such Proceeding, to the extent permitted by applicable law.

2. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for a portion of Expenses, but not for the total amount of Expenses, the Company shall indemnify the Indemnitee for the portion of such Expenses to which Indemnitee is entitled.

3. Scope of Indemnification. The Indemnitee shall be indemnified and secured harmless against all actions, proceedings, costs, charges, expenses, losses, damages or liabilities incurred or sustained by such Indemnified Person, other than by reason of such Indemnified Person's own dishonesty, wilful or intentional default, fraud or gross negligence in or about the conduct of the Company's business or affairs (including as a result of any mistake of judgment) or in the execution or discharge of his duties, powers, authorities or discretions, including without prejudice to the generality of the foregoing, any costs, expenses, losses or liabilities incurred by such Indemnified Person in defending (whether successfully or otherwise) any civil proceedings concerning the Company or its affairs in any court whether in the Cayman Islands or elsewhere.

4. Exclusions. Despite any provision to the contrary in this Agreement, the Indemnitee shall not be entitled to compensation under this Agreement if:

- a) to the extent that payment is actually made to Indemnitee under a valid, enforceable and collectible insurance policy;
- b) to the extent that Indemnitee is indemnified and actually paid other than pursuant to this Agreement;
- c) in connection with any Proceeding initiated by Indemnitee against the Company, any director or officer of the Company or any other party, and not by way of defense, unless (i) the Company has joined in or consented to the initiation of such Proceeding; or (ii) the Proceeding is one to enforce indemnification rights under this Agreement or any applicable law;
- d) brought about by the dishonesty, wilful or intentional default, fraud, intentional or gross negligence of the Indemnitee seeking payment hereunder;
- e) for any judgment, fine or penalty which the Company is prohibited by applicable law from paying as indemnity;
- f) arising out of Indemnitee's personal tax matter; or
- g) arising out of Indemnitee's breach of an employment agreement with the Company (if any) or any other agreement with the Company or any of its subsidiaries.

5. No Employment Rights. Nothing in this Agreement is intended to create in Indemnitee any right to continued employment with the Company.

III. Indemnification Process

1. Notice and Cooperation By Indemnitee. Indemnitee shall give the Company notice in writing within 20 working days after becoming aware of any claim made against Indemnitee for which indemnification will or could be sought under this Agreement. In addition, Indemnitee shall give the Company such information and cooperation as the Company may reasonably request. Notice to the Company shall be given in accordance with Section V.7 below. In addition, Indemnitee shall give the Company such information and cooperation as the Company may reasonably request.

2. Indemnification Payment.

a) *Advancement of Expenses.* Indemnitee may submit a written request with reasonable particulars to the Company requesting that the Company advance to Indemnitee all Expenses that may be reasonably incurred in advance by Indemnitee in connection with a Proceeding. The Company shall, within ten (10) business days of receiving such written request by Indemnitee, advance all requested Expenses to Indemnitee. Any excess of the advanced Expenses over the actual Expenses will be repaid to the Company.

b) *Reimbursement of Expenses.* To the extent Indemnitee has not requested any advanced payment of Expenses from the Company, Indemnitee shall be entitled to receive reimbursement for the Expenses incurred in connection with a Proceeding from the Company as soon as practicable after Indemnitee makes a written request to the Company for reimbursement and obtaining approval from the Company.

c) *Reviewing and Reimbursement.* When and to the extent that the Company determines that Indemnitee would not be permitted to be so indemnified under applicable law or the Company's Articles of Association, the Company shall be entitled to be reimbursed by Indemnitee (who hereby agrees to reimburse the Company) for all such amounts theretofore paid right away. The Indemnitee's obligation to reimburse the Company for any advanced Expenses shall be unsecured and no interest shall be charged thereon.

3. Assumption of Defense. In the event the Company is obligated under this Agreement to advance or bear any Expenses for any Proceeding against Indemnitee, the Company shall be entitled to choose the counsel of the defense of such Proceeding upon delivery to Indemnitee of written notice of its election to do so.

4. Defense to Indemnification, Burden of Proof and Presumptions. It shall be a defense to any action brought by Indemnitee against the Company to enforce this Agreement that it is not permissible under this Agreement or applicable law for the Company to indemnify the Indemnitee for the amount claimed. In connection with any such action or any determination by the Company or otherwise as to whether Indemnitee is entitled to be indemnified under this Agreement, the burden of proving such a defense or determination shall be on the Indemnitee.

5. No Settlement Without Consent. The Indemnitee shall not settle any Proceeding in any manner that would impose any damage, loss, penalty or limitation on the Company without the other party's written consent. The Indemnitee shall not unreasonably withhold its consent to any proposed settlement.

6. Company Participation. The Company shall not be liable to indemnify the Indemnitee under this Agreement with regard to any judicial action if the Company was not given a reasonable and timely opportunity to participate in the defense, conduct and/or settlement of such action.

IV. Federal Preemption

1. Federal Preemption. Notwithstanding the foregoing, both the Company and Indemnitee acknowledge that in certain instances, U.S. federal law or public policy may override applicable law and prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. Such instances include, but are not limited to, the U.S. Securities and Exchange Commission's prohibition on indemnification for liabilities arising under certain U.S. federal securities laws. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the U.S. Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

V. Miscellaneous

1. Amendment of this Agreement. No supplement, modification, or amendment of this Agreement shall be binding unless executed in writing by the parties hereto. No waiver of any of the provisions of this Agreement shall operate as a waiver of any other provisions (whether or not similar), nor shall such waiver constitute a continuing waiver. Except as specifically provided in this Agreement, no failure to exercise or any delay in exercising any right or remedy shall constitute a waiver.

2. Subrogation. In the event of payment to Indemnitee by the Company under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all papers required and shall do everything that may be necessary to secure such rights, including the execution of such documents necessary to enable the Company to bring suit to enforce such rights.

3. Assignment; Binding Effect. Neither this Agreement nor any of the rights or obligations hereunder may be assigned by either party hereto without the prior written consent of the other party; except that the Company may, without such consent, assign all such rights and obligations to a successor in interest to the Company which assumes all obligations of the Company under this Agreement in a written agreement in form and substance satisfactory to Indemnitee. Notwithstanding the foregoing, this Agreement shall be binding upon and inure to the benefit of and be enforceable by and against the parties hereto and the Company's successors (including any direct or indirect successor by purchase, merger, consolidation, or otherwise to all or substantially all of the business and/or assets of the Company) and assigns, as well as Indemnitee's spouses, heirs, and personal and legal representatives.

4. Severability and Construction. Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to a court order, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. In addition, if any portion of this Agreement shall be held by a court of competent jurisdiction to be invalid, void, or otherwise unenforceable, the remaining provisions shall remain enforceable to the fullest extent permitted by applicable law. The parties hereto acknowledge that they each have opportunities to have their respective counsels review this Agreement. Accordingly, this Agreement shall be deemed to be the product of both of the parties hereto, and no ambiguity shall be construed in favor of or against either of the parties hereto.

5. Counterparts. This Agreement may be executed in two (2) counterparts, both of which taken together shall constitute one instrument.

6. Governing Law. This agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of New York, U.S.A., without giving effect to conflicts of law provisions thereof.

7. Notices. All notices, demands, and other communications required or permitted under this Agreement shall be made in writing and shall be deemed to have been duly given if delivered by hand, against receipt, on the date of delivery, or mailed, on the third business day after mailing, postage prepaid, certified or registered mail, return receipt requested, and addressed to the Company at:

Canaan Inc.

[Name]

[Address]

[Address]

[Address]

and to Indemnitee at:

[Name]

[Address]

[Address]

[Address]

Notice of change of address shall be effective only when done in accordance with this Section.

8. Certain Relationships. The obligations and rights created under this Agreement shall not be affected by any amendment to the Company's Articles of Association or any other agreement or instrument to which Indemnitee is not a party, and shall not diminish any other rights which Indemnitee now or in the future has against the Company or any other person or entity.

9. Entire Agreement. This Agreement constitutes the entire agreement and supersedes all prior agreements and understandings, both written and oral, between the parties with respect to the subject matter hereof.

[Signature page follows]

IN WITNESS WHEREOF, the parties hereto execute this Agreement as of the date first written above.

CANAAN INC.

Name:
Title:

[INDEMNITEE]

Name:

CANAAN INC.

STATEMENT OF POLICIES
GOVERNING MATERIAL NON-PUBLIC INFORMATION AND
THE PREVENTION OF INSIDER TRADING

This Statement of Policies Governing Material Non-Public Information and the Prevention of Insider Trading (this “**Statement**”) applies to all directors, officers, employees and consultants of Canaan Inc. and its subsidiaries and consolidated and affiliated entities (collectively, the “**Company**”).

This Statement consists of three sections: Section I provides an overview, Section II sets forth the Company’s policies prohibiting insider trading, and Section III explains insider trading.

I. OVERVIEW

Preventing insider trading is necessary to comply with U.S. securities laws and to preserve the reputation and integrity of the Company, as well as that of all persons affiliated with it. “Insider trading” occurs when any person purchases or sells any securities while in possession of inside information relating to the securities. As explained in Section III below, “inside information” is information which is considered to be both “material” and “non-public.”

The Company considers strict compliance with the policies set forth in this Statement (collectively, the “**Policy**”) to be a matter of utmost importance. Violation of the Policy could cause extreme reputational damage and possible legal liability to you and the Company. Knowing or willful violations of the letter or spirit of the Policy will be grounds for immediate dismissal from the Company. Violation of the Policy might expose the violator to severe criminal penalties, as well as civil liability to any person harmed by the violation. The monetary damages flowing from a violation could be multiple times the profit realized by the violator, not to mention the attorney’s fees of the persons harmed.

This Statement applies to all directors, officers, employees and consultants of the Company and extends to all of such persons’ activities within and outside their duties at the Company. Every director, officer, employee and consultant of the Company must review this Statement, and when requested by the Company, must execute and return the Certification of Compliance attached hereto to the Chief Financial Officer for the Company (the “**Compliance Officer**”) within seven (7) days after receiving the request. Questions regarding this Statement should be directed to the Compliance Officer by e-mail at jamescheng@canaan-creative.com.

II. POLICIES PROHIBITING INSIDER TRADING

For purposes of this Statement, the terms “purchase” and “sell” of securities exclude the acceptance of options or other share-based awards granted by the Company and the exercise of options or vesting of other share-based awards, if applicable, that does not involve the sale of securities. Among other things, the cashless exercise of options does involve the sale of securities and therefore is subject to the policies set forth below. The Policy does not apply to the exercise of a tax withholding right pursuant to which you elect to have the Company withhold ordinary shares subject to an option or other award to satisfy tax withholding requirements.

A. No Trading – No director, officer, employee or consultant of the Company may purchase or sell any, ordinary shares or other securities of the Company or enter into a binding security trading plan in compliance with Rule 10b5-1 under the U.S. Securities Exchange Act of 1934, as amended (a “Trading Plan”) while in possession of material non-public information relating to the Company or its ordinary shares or other securities (the “Material Information”).

In the event that the Material Information possessed by you relates to the securities of the Company, the above policy will require waiting for at least forty-eight (48) hours after public disclosure of the Material Information by the Company, which forty-eight (48) hours shall include in all events at least one full Trading Day on the stock exchange where the Company's ordinary shares are listed and traded (the "**Stock Exchange**") following such public disclosure. The term "Trading Day" is defined as a day on which the Stock Exchange is open for trading. Except for public holidays in the United States, the Stock Exchange's regular trading hours are from 9:30 a.m. to 4:00 p.m., New York City time, Monday through Friday.

In addition, no director, officer, employee or consultant of the Company may purchase or sell any securities of the Company or enter into a Trading Plan, without the prior clearance by the Compliance Officer, during any period designated as a "limited trading period" by the Company, regardless of whether such director, officer, employee or consultant possesses any Material Information.

Furthermore, all transactions in the securities of the Company (including without limitation, acquisitions and dispositions of ordinary shares, such as ordinary shares issued upon exercise of options or vesting of other share-based awards and the execution of a Trading Plan, but excluding the acceptance of options or other share-based awards granted by the Company and the exercise of options or vesting of other share-based awards that does not involve the sale of securities) by directors, officers and key employees designated by the Company from time to time must be pre-approved by the Compliance Officer.

Please see Section III below for an explanation of the Material Information.

B. *Trading Window* – Assuming none of the "no trading" restrictions set forth in Section II-A above applies, no director, officer, employee or consultant of the Company may purchase or sell any securities of the Company or enter into a Trading Plan other than during a Trading Window.

A "Trading Window" is the period beginning at 9:30 a.m., Eastern time, on the third full Trading Day following the date of public disclosure by the Company of the financial results for the most recently completed fiscal quarter or year, and ending at 4:00 p.m., Eastern time, on the 20th day or the last trading day before the 20th day (if the 20th day is not a Trading Day) of the last month in the calendar quarter in which such public disclosure was made.

In other words:

(1) beginning on 4:01 p.m., Eastern time, December 20 or the last trading day before December 20 (if December 20 is not a Trading Day) of each year, no director, officer, employee or consultant of the Company may purchase or sell any securities of the Company or enter into a Trading Plan until 9:29 a.m., Eastern time, on the third full Trading Day following the date of public disclosure by the Company of the financial results for the fiscal year ended on December 31 of that year; and

(2) beginning on 4:01 p.m., Eastern time, March 20 or the last trading day before March 20 (if March 20 is not a Trading Day), 4:01 p.m., Eastern time, June 20 or the last trading day before June 20 (if June 20 is not a Trading Day), and 4:01 p.m., Eastern time, September 20 or the last trading day before September 20 (if September 20 is not a Trading Day) of each year, no director, officer, employee or consultant of the Company may purchase or sell any securities of the Company or enter into a Trading Plan until 9:29 a.m., Eastern time, on the third full Trading Day following the date of public disclosure by the Company of the financial results for the fiscal quarter ended on March 31, June 30, and September 30 of that year, respectively.

If the Company's public disclosure of its financial results for the prior period occurs on a Trading Day more than four hours before the Stock Exchange closes, then such date of disclosure shall be considered the first Trading Day following such public disclosure.

Please note that trading in any securities of the Company during the Trading Window is not a "safe harbor," and all directors, officers, employees and consultants of the Company should strictly comply with the Policy.

When in doubt, do not trade! Check with the Compliance Officer first.

Notwithstanding the foregoing, sale of securities of the Company pursuant to an existing Trading Plan which was entered into in accordance with the Policy and in compliance with applicable law is not subject to the restrictions on trading in Sections II-A and II-B above.

C. Legal Compliance of Trading Plans – In addition to and notwithstanding the policies contained elsewhere in this Statement that apply to Trading Plans, all insiders of the Company must abide by all applicable U.S. securities laws and regulations when adopting, amending and terminating a Trading Plan.

D. No Tipping – No director, officer, employee or consultant of the Company may directly or indirectly disclose any Material Information to anyone who trades in securities (so-called "tipping").

E. Confidentiality – No director, officer, employee or consultant of the Company may communicate any Material Information to anyone outside the Company under any circumstances unless approved by the Compliance Officer in advance, or to anyone within the Company other than on a need-to-know basis.

F. No Comment – No director, officer, employee or consultant of the Company may discuss any internal matters or developments of the Company with anyone outside the Company, except as required for the performance of regular corporate duties. Unless you are expressly authorized to the contrary, if you receive any inquiries about the Company or its securities by the financial press, research analysts or others, or any requests for comments or interviews, you are required to decline comment and direct the inquiry or request to the Company's IR department, who is responsible for coordinating and overseeing the release of information of the Company to the investing public, analysts and others in compliance with applicable laws and regulations.

G. Corrective Action – If you become aware that any potential Material Information has been or may have been inadvertently disclosed, you must notify the Compliance Officer immediately so that the Company can determine whether or not corrective action, such as general disclosure to the public, is warranted.

III. EXPLANATION OF INSIDER TRADING

As noted above, "**insider trading**" refers to the purchase or sale of a security while in possession of "material" "non-public" information relating to the security. "Securities" include not only stocks, bonds, notes and debentures, but also options, warrants and similar instruments. "Purchase" and "sale" are defined broadly under the U.S. federal securities laws. "Purchase" includes not only the actual purchase of a security, but any contract to purchase or otherwise acquire a security. "Sale" includes not only the actual sale of a security, but any contract to sell or otherwise dispose of a security. These definitions extend to a broad range of transactions, including conventional cash-for-stock transactions, the grant and exercise of stock options and acquisitions and exercises of warrants or puts, calls or other options related to a security. It is generally understood that "**insider trading**" includes the following:

- Trading by insiders while in possession of material non-public information;

- Trading by persons other than insiders while in possession of material non-public information where the information either was given in breach of an insider's fiduciary duty to keep it confidential or was misappropriated; and
- Communicating or tipping material non-public information to others, including recommending the purchase or sale of a security while in possession of material nonpublic information.

As noted above, for purposes of this Statement, the terms "purchase" and "sell" of securities exclude the acceptance of options or other share-based awards granted by the Company and the exercise of options or vesting of other share-based awards that does not involve the sale of securities. Among other things, the cashless exercise of options does involve the sale of securities and therefore is subject to the Policy.

A. What are Material Facts?

The materiality of a fact depends upon the circumstances. A fact is considered "material" if there is a substantial likelihood that a reasonable investor would consider it important in making a decision to buy, sell or hold a security or where the fact is likely to have a significant effect on the market price of the security. Material information can be positive or negative and can relate to virtually any aspect of a company's business or to any type of security, debt or equity. Examples of material information include (but are not limited to) information concerning:

- Dividends;
- Corporate earnings or earnings forecasts;
- Changes in financial condition or asset value;
- Negotiations for the mergers or acquisitions or dispositions of significant subsidiaries or assets;
- Significant new contracts or the loss of a significant contract;
- Significant new products or services;
- Significant marketing plans or changes in such plans;
- Capital investment plans or changes in such plans;
- Material litigation, administrative action or governmental investigations or inquiries about the Company, any of its affiliated companies, or any of its officers or directors;
- Significant borrowings or financings;
- Defaults on borrowings;
- New equity or debt offerings;
- Significant personnel changes;
- Changes in accounting methods and write-offs; and
- Any substantial change in industry circumstances or competitive conditions which could significantly affect the Company's earnings or prospects for expansion.

A good general rule of thumb: **when in doubt, do not trade.**

B. What is Non-public Information?

Information is “**non-public**” if it is not available to the general public. In order for information to be considered public, it must be widely disseminated in a manner making it generally available to investors through such media as Dow Jones, Reuters Economic Services, The Wall Street Journal, Bloomberg, Associated Press, PR Newswire or United Press International. Circulation of rumors, even if accurate and reported in the media, does not constitute effective public dissemination.

In addition, even after a public announcement, a reasonable period of time must lapse in order for the market to react to the information. Generally, one should allow approximately forty-eight (48) hours following publication as a reasonable waiting period before such information is deemed to be public.

C. Who is an Insider?

“**Insiders**” include directors, officers, employees and consultants of a company and anyone else who has material non-public information about a company. Insiders have independent fiduciary duties to their company and its shareholders not to trade on material non-public information relating to the company’s securities. All directors, officers, employees and consultants of the Company are considered insiders with respect to material non-public information about business, activities and securities of the Company. The directors, officers, employees and consultants of the Company may not trade the Company’s securities while in possession of material non-public information relating to the Company or tip (or communicate except on a need-to-know basis) such information to others.

It should be noted that trading by household members of a director, officer, employee or consultant can be the responsibility of such director, officer, employee or consultant under certain circumstances and could give rise to legal and Company-imposed sanctions.

D. Trading by Persons Other than Insiders

Insiders may be liable for communicating or tipping material non-public information to a third party (a “**tippee**”), and insider trading violations are not limited to trading or tipping by insiders. Persons other than insiders also can be liable for insider trading, including tippees who trade on material nonpublic information tipped to them or individuals who trade on material non-public information which has been misappropriated.

Tippees inherit an insider’s duties and are liable for trading on material non-public information tipped to them by an insider. Similarly, just as insiders are liable for the insider trading of their tippees, so are tippees who pass the material non-public information along to others who trade on such information. In other words, a tippee’s liability for insider trading is no different from that of an insider. Tippees can obtain material non-public information by receiving overt tips from others or through, among other things, conversations at social, business, or other gatherings.

E. Penalties for Engaging in Insider Trading

Penalties for trading on or tipping material non-public information can extend significantly beyond any profits made or losses avoided, both for individuals engaging in the unlawful conduct and their employers. The United States Securities and Exchange Commission and the United States Department of Justice have made the civil and criminal prosecution of insider trading violations a top priority. Enforcement remedies available to the government or private plaintiffs under the U.S. federal securities laws include:

- Administrative sanctions;

- Sanctions by self-regulatory organizations in the securities industry;
- Civil injunctions;
- Damage awards to private plaintiffs;
- Disgorgement of profits gained by the violator;
- Civil fines for the violator of up to three times the amount of profit gained or loss avoided by the violator;
- Civil fines for the employer or other controlling person of a violator (i.e., where the violator is an employee or other controlled person) of up to the greater of US\$1,000,000 or three times the amount of profit gained or loss avoided by the violator;
- Criminal fines for individual violators of up to US\$5,000,000 (US\$25,000,000 for an entity); and
- Jail sentences of up to 20 years.

In addition, insider trading could result in serious sanctions by the Company, including immediate dismissal. Insider trading violations are not limited to violations of the U.S. federal securities laws. Other U.S. federal and state civil or criminal laws, such as the laws prohibiting mail and wire fraud and the Racketeer Influenced and Corrupt Organizations Act (RICO), also may be violated upon the occurrence of insider trading.

F. Material Non-public Information Regarding Other Companies

This Policy and the guidelines described herein also apply to material non-public information relating to other companies, including the Company's customers, vendors and suppliers ("**Business Partners**"), particularly when that information is obtained in the course of employment with, or other services performed by, or on behalf of, the Company. Civil and criminal penalties, and disciplinary consequences, including termination of employment for cause, may result from trading on material nonpublic information regarding the Company's Business Partners. Each individual should treat material non-public information about the Company's Business Partners with the same care required with respect to information related directly to the Company.

CERTIFICATION OF COMPLIANCE

To: Compliance Officer, Canaan Inc.

Re: **Statement of Policies Governing Material Non-Public Information and The Prevention of Insider Trading (as amended from time to time, the “Policy”)**

I, _____, hereby certify that I have received and reviewed and understand the policies and procedures set forth in the above-referenced Policy.

I hereby undertake, as a condition to my present and continued employment at or association with Canaan Inc. or any of its subsidiaries or affiliated entities (collectively, the “**Company**”), to comply fully with the Policy at all times and to adhere to the Policy in the future.

I further certify that I have adhered to the Policy during the time period that I have been employed by or associated with the Company.

Signature: _____

Name: _____

Passport / ID Card No.: _____

Title / Designation: _____

Date: _____

Certification by the Chief Executive Officer

Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Nangeng Zhang, certify that:

1. I have reviewed this annual report on Form 20-F of Canaan Inc. (the "Company");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: April 18, 2025

By: /s/ Nangeng Zhang

Name: Nangeng Zhang

Title: Chairman and Chief Executive Officer

Certification by the Chief Financial Officer

Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, James Jin Cheng, certify that:

1. I have reviewed this annual report on Form 20-F of Canaan Inc. (the "Company");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and
5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company's internal control over financial reporting.

Date: April 18, 2025

By: /s/ James Jin Cheng
Name: James Jin Cheng
Title: Chief Financial Officer

Certification by the Chief Executive Officer

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the annual report of Canaan Inc. (the "Company") on Form 20-F for the year ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Nangeng Zhang, Chairman and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 18, 2025

By: /s/ Nangeng Zhang
Name: Nangeng Zhang
Title: Chairman and Chief Executive Officer

Certification by the Chief Financial Officer

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the annual report of Canaan Inc. (the "Company") on Form 20-F for the year ended December 31, 2024 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, James Jin Cheng, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: April 18, 2025

By: /s/ James Jin Cheng

Name: James Jin Cheng

Title: Chief Financial Officer

通商律師事務所

COMMERCE & FINANCE LAW OFFICES

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电话 Tel: +86 10 6563 7181 传真 Fax: +86 10 6569 3838
电邮 Email: beijing@tongshang.com 网址 Web: www.tongshang.com

To : **Canaan Inc.**

28 Ayer Rajah Crescent #06-08, S139959
Singapore

April 18, 2025

Dear Sirs or Madam,

Re: Canaan Inc. (the “Company”)

We, Commerce & Finance Law Offices, consent to the reference to our firm under the captions of “Item 3.D — Risk Factors” in Canaan Inc.’s annual report on Form 20-F for the year ended December 31, 2024, which will be filed with the Securities and Exchange Commission in the month of April 2025.

In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, or under the Securities Exchange Act of 1934, in each case, as amended, or the regulations promulgated thereunder.

[The remainder of this page is intentionally left blank]

Yours sincerely,

/s/ **Commerce & Finance Law Offices**

Commerce & Finance Law Offices

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-238717, No. 333-255471 and No. 333-271339) on Form S-8 and (No. 333-285125) on Form F-3 of our report dated April 18, 2025, with respect to the consolidated financial statements of Canaan Inc. and the effectiveness of internal control over financial reporting.

/s/ KPMG Huazhen LLP

Beijing, China
April 18, 2025
