



**FUDAN  
MICRO**

**上海復旦微電子集團股份有限公司**

Shanghai Fudan Microelectronics Group Company Limited\*

(a joint stock limited company incorporated in the People's Republic of China)

(Stock Code: 1385)

**2022**

**INTERIM REPORT**

# Contents

	Pages
<b>PRINCIPAL ACCOUNTING DATA AND KEY FINANCIAL INDICATORS</b>	2
<b>MANAGEMENT DISCUSSION AND ANALYSIS</b>	4
<b>FINANCIAL STATEMENTS</b>	
Consolidated Balance Sheet (Unaudited)	18
Balance Sheet of the Parent Company (Unaudited)	20
Consolidated Income Statement (Unaudited)	22
Income Statement of the Parent Company (Unaudited)	24
Consolidated Cash Flows Statement (Unaudited)	25
Cash Flows Statement of the Parent Company (Unaudited)	27
Consolidated Statement of Changes in Owners' Equity (Unaudited)	29
Statement of Changes in Owners' Equity of the Parent Company (Unaudited)	30
Notes to Financial Statements	31
<b>OTHER INFORMATION</b>	103

# Principal Accounting Data and Key Financial Indicators

The board of directors (the “Board”) of Shanghai Fudan Microelectronics Group Company Limited (the “Company”) is pleased to announce the unaudited consolidated results of the Company and its subsidiaries (the “Group”) for the half-year ended 30 June 2022 together with the comparative figures for the corresponding period in 2021 or as at 31 December 2021 as follows:

## KEY ACCOUNTING DATA

	Half-year ended 30 June	
	2022	2021
	RMB	RMB
	(Unaudited)	(Unaudited)
<b>Operating income</b>	<b>1,702,333,354.86</b>	1,128,663,994.43
Net profits attributable to the shareholders of the Company	<b>530,531,484.80</b>	194,343,292.11
Net profits attributable to the shareholders of the Company after deducting non-recurring gains and losses	<b>518,947,991.62</b>	161,728,608.20
Net cash flows generated from operating activities	<b>329,107,161.67</b>	235,732,498.87
	As at	As at
	30 June 2022	31 December 2021
	RMB	RMB
	(Unaudited)	(Audited)
Net assets attributable to the shareholders of the Company	<b>3,693,193,318.50</b>	3,140,245,706.35
Total assets	<b>4,976,720,573.78</b>	4,165,014,183.19

# Principal Accounting Data and Key Financial Indicators

## KEY FINANCIAL INDICATORS

	Half-year ended 30 June	
	2022	2021
	RMB	RMB
	(Unaudited)	(Unaudited)
Basic earnings per share (RMB/share)	<b>0.65</b>	0.28
Diluted earnings per share (RMB/share)	<b>0.65</b>	0.28
Basic earnings per share after deducting non-recurring gains and losses (RMB/share)	<b>0.64</b>	0.23
Weighted average return on net asset (%)	<b>15.57</b>	9.59
Weighted average return on net asset after deducting non-recurring gains and losses (%)	<b>15.23</b>	7.98
Percentage of research and development investment of operating income (%)	<b>23.42</b>	28.91

During 1 January 2022 and 30 June 2022 (the “Reporting Period”), the Group achieved an operating income of approximately RMB1.702 billion, representing an increase of approximately 50.83% over the same period in 2021; net profit attributable to owners of the parent company of approximately RMB531 million, representing an increase of approximately 172.99% over the same period in 2021; and net profit attributable to owners of the parent company after deducting non-recurring gains and losses of approximately RMB519 million, representing an increase of approximately 220.88% over the same period in 2021. As of 30 June 2022, the total assets of the Group were approximately RMB4.977 billion, representing an increase of approximately 19.49% over the same period in 2021, net assets attributable to shareholders of the parent company were approximately RMB3.693 billion, representing an increase of approximately 17.61% over the same period in 2021.

The growth of the above-mentioned major accounting data and financial indicators was mainly caused by the following factors:

- (1) The Company explored markets and new customers actively, optimized product and customer structure continuously, overcame the impact of the epidemic, safeguarded the supply chain, and achieved growth in operating income from design and sales of integrated circuits;
- (2) Benefiting from product structure adjustment, new product launch and price adjustment, the comprehensive gross profit margin increased by 9.77% over the same period in 2021;
- (3) In order to maintain and enhance the Company’s core competitiveness, the Group continued to maintain the intensity of research and development investment. The investment was approximately RMB399 million in the Reporting Period, represented an increase of 22.17% over the same period in 2021;
- (4) Due to the implementation of the restricted share incentive scheme during the Reporting Period, the Group’s share-based payment expenses were RMB73,698,600, which were included in recurring gains and losses and represented an increase of RMB73,044,000 over the same period in 2021.

# Management Discussion and Analysis

## (I) INDUSTRY AND PRINCIPAL BUSINESS

### 1. Industry Development

The Group is mainly engaged in the design, development and testing of large integrated circuits. According to the “Guidelines for the Industry Classification of Listed Companies” issued by the CSRC, the industry in which the Company operates is “C Manufacturing Industry – C39 Computer, Communication and Other Electronic Equipment Manufacturing Industry”.

According to the World Semiconductor Trade Statistics (“WSTS”): the global semiconductor market sales amount in 2021 was US\$555.9 billion, representing an increase of 26.2% from 2020 which is the largest increase since 2010; The sales of the semiconductor market in China was US\$192.5 billion, with a growth rate of 27.1% compare to 2020, accounting for 34.8% of the global semiconductor market share. WSTS predicts the global semiconductor market sales will reach US\$613.5 billion in 2022, which will set a new record.

All segments of China’s integrated circuits have also made great progress in 2021. The industry sales exceeded RMB1 trillion for the first time. According to the China Semiconductor Industry Association, industry sales reached RMB1,045.83 billion, of which the sales of the design industry was RMB451.9 billion, increased by 19.6% yearly. Some of the technologically advanced IC design companies have begun to emerge in the fields of AI, HPC and autonomous driving, and continue to introduce new products such as CPU, GPU, 5G smartphone chips, automotive electronic chips, and FPGA.

In the first half of the year 2022, despite the increase in external environmental risks and challenges due to the COVID epidemic and conflicts in some overseas regions, the global economy is still showing a recovery trend, and the international market demand remains stable. In the first half of the year, China’s integrated circuits exports increased by 16.4% which reflects the increasing competitiveness of China’s integrated circuit industry.

### 2. Analysis of Principal Business, Products and Industry Position

The Group is engaged in the design, development and testing of large integrated circuits as well as provision of system solutions to customers. The Group has established and improved product lines such as security and identification IC chips, non-volatile memory, smart meter ASIC chips, FPGA chips and testing services for IC products, and the products are widely used in numerous fields such as finance, social security, urban public transportation, electronic certificates, mobile payment, anti-counterfeiting traceability, smart phones, security monitoring, industrial control, signal processing and smart computing. The main products of the Group include security and identification IC chips, non-volatile memory, smart meter ASIC chips, FPGA chips and other products. The details of each product are as follows:

# Management Discussion and Analysis

## (I) INDUSTRY AND PRINCIPAL BUSINESS *(Continued)*

### 2. Analysis of Principal Business, Products and Industry Position *(Continued)*

#### a) *Security and identification IC chips*

The Group's security and identification product line has three product directions: RFID and sensor chips, smart cards and security chips, and smart identification chips which is a leading chip supplier of RFID, smart cards, security modules and NFC products in China. On the basis of maintaining the competitive advantages of smart cards chips products, the Group is actively expanding its product portfolio and overall solutions to Sensing RFID chips and anti-counterfeiting applications, Internet of Things security, and NFC application solutions.

During the Reporting Period, the operating income of this product line was approximately RMB461 million (2021: RMB373 million). The high-quality service direction of "overall solution and whole system" and "deeply cultivating major terminal customers" have achieved remarkable results. The development of key new products such as UHF RFID chips, UHF read-write chips, and security SE chips continues to progress, and is expected to be mass-produced; The product line has been actively developed in automotive-grade application scenarios and it has been mass-produced in projects such as TBox security chips and car digital keys.

#### b) *Non-volatile memory*

The Group has both the design and mass production capabilities of EEPROM, NOR Flash and SLC NAND Flash products. The storage product capacity covers 1Kbit-4Gbit and the product capacity and subdivided product series continue to increase. Some of the Group's EEPROM products have passed the industrial-grade and vehicle-grade assessments. The supply chain guarantees strong supply capabilities, and the reputation in terms of popularity and reliability is relatively high among domestic brands. The Group's Flash products have established certification or cooperative relations with many domestic and foreign mainstream chip manufacturers such as Qualcomm, Broadcom, MediaTek, Realtek, Intel, NVIDIA, etc., which effectively promotes the introduction of the Company's Flash products into a wider range of applications. The Company will continue to expand the domestic smart meter, VR/AR, ADAS and other markets.

During the Reporting Period, the operating income of this product line was approximately RMB487 million (2021: RMB364 million). The Group has successively introduced leading customers in the industry such as network communication, wearable, WiFi6, and display screens. In the field of automotive electronics applications, a number of projects have entered the application stage successfully.

#### c) *Smart meter ASIC chips*

The Group's smart meter product line already has FM330x/331x/33A0xx/33A0xxB series smart meter MCU chips, FM3316/3313/3312, FM33A0xx/33G0xx series ultra-low power consumption MCU chips, as well as FM38025T high-precision real-time clock chips, FM320x series power carrier chips Chip and MCU core series products cover from 8-bit computer, 16-bit computer to 32-bit ARM Cortex M0+ platform, and the embedded storage capacity ranges from 64K to the highest 512K, which realizes the platformization and serialization of products, and is widely used in intelligent power grid, smart three meters, smart street lights, smart home, health care and other application fields.

# Management Discussion and Analysis

## (I) INDUSTRY AND PRINCIPAL BUSINESS *(Continued)*

### 2. Analysis of Principal Business, Products and Industry Position *(Continued)*

#### *c) Smart meter ASIC chips (Continued)*

During the Reporting Period, the operating income of this product line was approximately RMB276 million (2021: RMB99 million). The Group's smart meter MCU maintained a leading position in the State Grid single-phase smart meter MCU market. Relying on the design experience and stable and reliable product realization capabilities which accumulated in the field of smart meters for many years, the product line has developed well in scenarios such as smart water and gas heat meters, smart homes, Internet of Things, and automotive-grade applications. At the same time, leveraging on the advantages of high-reliability MCU technology, efforts are made to develop the automotive electronics market. The first automotive-grade MCU has completed the AEC-Q100 assessment and entered the market. The product performance and quality have been widely recognized by customers. It is expected to enter the mass production stage in the second half of 2022.

#### *d) FPGA chips and other products*

The Group's FPGA product line has a series of ultra-large-scale heterogeneous fusion programmable logic device products, and has successfully developed the first 100 million gate FPGA and heterogeneous fusion programmable system-on-chip (PSoC) chips, as well as fusion oriented artificial intelligence applications, Field Programmable (FPGA) and Reconfigurable Chips for Artificial Intelligence (AI).

During the Reporting Period, the operating income of this product line was approximately RMB378 million (2021: RMB171 million). The Company is in a leading position in the field of domestic FPGA chip design, and is the first domestic manufacturer to launch the 100 million gate FPGA products. As of the end of the Reporting Period, the Company has sold FPGA products to more than 500 customers accumulatively which include customers in the communication field, industrial control field and high reliability field. Procise™, a tool software developed by the Company dedicated to the development process of complete programmable devices which can support the company's full range of programmable devices, broke through many core key technologies of FPGA supporting EDA software.

Other chips are mainly smart electrical chips, which have good applications in the fields of leakage protection devices and household appliances.

## (II) CORE TECHNOLOGY AND RESEARCH AND DEVELOPMENT PROGRESS

### Core Technology and its Leading Edges and Changes during the Reporting Period

#### *(a) Security and identification IC chips*

After years of continuous Research and Development and technology accumulation, the Group's security and identification product line has formed relatively obvious technical and Research and Development advantages in the two key technical fields of radio frequency and security. Based on the accumulation of radio frequency chip design technology for many years, further research to form a new generation of NFC technology to support more types of NFC devices, and at the same time, the UHF RFID technology with sensing characteristics has been launched to better expand the rapidly developing UHF RFID application field.

# Management Discussion and Analysis

## (II) CORE TECHNOLOGY AND RESEARCH AND DEVELOPMENT PROGRESS

*(Continued)*

### Core Technology and its Leading Edges and Changes during the Reporting Period

*(Continued)*

#### *(a) Security and identification IC chips (Continued)*

In the Reporting Period, the security chip product line had launched a variety of IoT security chips based on the above technologies, optimized the balance of security technology and low-power technology to meet the needs of IoT low-power security applications. In addition, the product line also carried out a technical layout in the field of sensing, and planned to combine the Company's security and radio frequency technology advantages to launch security chips, sensor chips and radio frequency chips.

#### *(b) Non-volatile memory*

The Group's electrical storage product line has established a new generation of ultra-wide voltage and high reliability EEPROM design platform through continuous independent innovation and technology research and development. Achieving breakthroughs in both performance and reliability indicators and forming a clear technological lead which will greatly promote the application of the above technologies in various low-voltage, low-power, vehicle regulations and other technical applications such as the Internet of Things. In the field of NOR FLASH, the Company will continue to refresh the process nodes of wide-voltage product series, establish a new generation of low-voltage and high-speed design platforms, and introduce new products with large-capacity, wide-temperature and serial interfaces into mass production. Products based on related technologies will further enrich the Company's NOR product spectrum and meet the requirement of customer segments. In the field of SLC NAND, on the basis of stable mass production of small and medium-capacity products based on advanced process technology, the trial and introduction of large-capacity, wide-temperature and high-reliability series products have been completed which will provide strong support in terms of reliability, capacity coverage, cost and other needs for customers.

In the Reporting Period, after completing the AEC-Q100 assessment and verification of the first grade 1 large-capacity EEPROM for automobiles successfully, several EEPROM, NOR, and NAND products had successively entered into the AEC-Q100 assessment which gradually expanded the coverage of automotive-grade products, and benchmarked reliability indicators such as erasing life and data retention time against industry benchmarks, providing a one-stop solution with more complete capacity coverage for industrial control instrumentation, medical, communications, automotive and other application fields. The Group will continue to increase R&D investment in the field of non-dynamic memory including new process nodes, low voltage or wide voltage, high speed, and high reliability (expanding industrial regulations, vehicle regulations, etc.) and continue to gain leading advantages.

#### *(c) Smart meter ASIC chips*

In terms of MCU technology for smart meters, the Group is currently researching and implementing internal and external integrated storage technology, low-power clock technology products, built-in true random number generator, AES encryption operation unit, and ECC/RSA public key encryption algorithm acceleration engine implementation technology. Comparing with competitors in the same industry, the products developed by the Company based on the above technologies have larger storage capacity, higher main frequency, significantly lower standby power consumption, and the chip area is smaller than that of competitors significantly, reflecting the Group's leading chip design capabilities.

# Management Discussion and Analysis

## (II) CORE TECHNOLOGY AND RESEARCH AND DEVELOPMENT PROGRESS

*(Continued)*

### Core Technology and its Leading Edges and Changes during the Reporting Period

*(Continued)*

#### *(c) Smart meter ASIC chips (Continued)*

During the Reporting Period, the Group's MCU products completed the development and tapeout of 12-inch 55nm and 90nm embedded flash memory process platforms and actively promote the productization work. In the future, it will realize the complete layout of 12-inch and 8-inch process platforms, further enrich the product line, and expand the market share of key industries such as utilities, industry, white goods, and automobiles. It is expected that a variety of large-capacity, high-reliability, high-performance industrial-grade and automotive-grade MCU products based on the 12-inch process platform will be gradually launched in the second half of 2022.

#### *(d) FPGA chips and other chips*

FPGA product line has successfully broken through the ultra-large-scale FPGA architecture technology, programmable device compiler technology, multi-protocol ultra-high-speed serial transceiver technology, heterogeneous intelligent computing architecture technology, high-reliability programmable device technology. Ultra-large key technologies such as full-process EDA technology are supported by large-scale programmable devices, forming obvious technology cluster advantages in the field of FPGA and PSoC, and building core technical barriers to consolidate competitive advantages.

During the Reporting Period, FPGA products based on the above technologies have been applied in batches and have obtained good market feedback and economic benefits. The research and development of a new generation of billion-gate FPGA products is underway, and its performance in all aspects will be greatly improved compared to the previous generation. The Company's PSoC products have also been mass-produced successfully and small batch trials are being carried out by many customers. At the same time, the new generation of heterogeneous smart PSoC products equipped with APU, GPU, VPU, eFPGA, and AI engine has also achieved phased research and development results. It will further enrich the pedigree of the Company's programmable design product series to continuously meet the needs of customers in various application fields.

## (III) ANALYSIS ON THE CORE COMPETITIVENESS

As a light-asset enterprise under Fabless mode, the Company builds its core competitiveness centering on the design and R&D business of integrated circuits. In order to ensure the Company's continuous innovation ability, the Company continues to invest in product research and development, talent team construction, quality and services, domestic and foreign markets and consolidating the supply chain, to strengthen the Company's operation base and build a moat for corporate development.

### 1. Multi-level product research and development system and profound technology accumulation have formed a rich product line

Since establishment, the Company has continued to focus on integrated circuit design and R&D and established a multi-level R&D system from technology pre-research, product design, engineering implementation and application development. With more than 20 years of development, the Company has accumulated rich industry experience and technology which the product line is extensive and the application field is wide.

# Management Discussion and Analysis

## (III) ANALYSIS ON THE CORE COMPETITIVENESS *(Continued)*

### 2. Perfect talent training mechanism and incentive mechanism have formed a R&D team with profound professional background

Integrated circuit design is a technology intensive industry. The Company attaches great importance to the construction of talent echelon. At present, it has R&D teams for product and system definition, digital and analog circuit design and verification, testing and engineering implementation, system solutions, etc., forming a diversified and multi-level R&D talent echelon.

### 3. High quality control system

The Company attaches great importance to the quality control of products from R&D to delivery, and has established a high quality control system. The Company has passed ISO9001, QC080000 quality control system certification and participated in the formulation of a number of national and industrial standards. After years of market verification, the Company's products have been recognized by numerous well-known manufacturers at home and abroad, and the market share of many products ranks in the forefront of the industry.

### 4. Business expansion mode with both localization and internationalization

While continuing to promote the rapid development of domestic business, the Company takes initiative to participate in international market with the development goal of building a platform with international competitiveness. The Company was successfully listed in Hong Kong in year 2000 which has international information disclosure channels and rich experience in communication with international investors. In addition, the Company has also set up subsidiaries and branches in the United States, Singapore, Hong Kong, China Taiwan and other countries and regions to strengthen the linkage with international industry giants, in-depth understand the development trends of cutting-edge technologies in the industry, and cultivate and enhance the Company's international market influence and brand awareness.

### 5. Deep supply chain collaboration model

The outsourced suppliers selected by the Company are mainly world-renowned companies and domestic leading listed companies, with advanced technological standards and sufficient capacity reserves. As a large-scale integrated circuit design enterprise, the Company has diversified products and wide application fields. It has a strong ability to resist cyclical fluctuations, and can continuously and stably generate demands for tape-out, packaging, testing, etc. It effectively guarantees the operation efficiency and operating efficiency of upstream and downstream enterprises, and enhances the Company's position in the industrial chain.

### 6. Have a good brand image and market reputation

The Company has been innovating for more than 20 years continuously, entering new application fields, and has won many honors in the industry through abundant products, stable and highly reliable quality, and honest and mutually beneficial business quality. The Company has won the scientific and technological progress awards issued by the Shanghai Municipal People's Government for many times.

# Management Discussion and Analysis

## (IV) MANAGEMENT DISCUSSION AND ANALYSIS

In the first half of 2022, in the face of the epidemic and the complex and complex external situation, the Company made arrangements in advance, made overall planning and clarified the response plan, to ensure that both epidemic prevention and supply are not delayed. Through active and effective response plans, as well as the full support of suppliers and logistics companies and the efforts of employees, the entire supply chain of the company has been carried out in an orderly and stable manner during the special period. In the first half of 2022, the Group's (1) operating income was approximately RMB1.702 billion, representing an increase of 50.83% as compared to the same period of the previous year; (2) net profit attributable to the owners of the parent was approximately RMB531 million representing an increase of 172.99% as compared to the same period of the previous year; and (3) net profit attributable to the owners of the parent after deducting non-recurring gains and losses was approximately RMB519 million representing an increase of 220.88% as compared to the same period of the previous year. Details are as follows:

### 1. Security and identification

During the Reporting Period, the operating income of this category of products increased by 23.57% as compared with the same period last year. By optimizing product performance, improving customer service, stabilizing product prices, maintaining market competitiveness, and continuously making positive progress in new fields, the sales of this category of products increased steadily. Among them, the sales of financial and social security chips of intelligent security series, logic encryption chips of RFID and sensing series, high-frequency RFID tag chips, and high-frequency reader chips of intelligent identification series have grown steadily.

### 2. Non-volatile memory

During the Reporting Period, the operating income of this category of products increased by 33.80% compared with the same period of last year. The three main product lines, NOR FLASH, SLC NAND FLASH and EEPROM, were adversely affected by the market environment, but due to the continuous optimization of customer structure, there was steady increase in the number of customer orders for high-reliability applications, and the comprehensive anti-cycle resilience of the entire storage product line is still maintained.

### 3. Smart meter

During the Reporting Period, the operating income of this category of products increased by 177.86% compared with the same period of last year. Due to the improvement of the supply chain, the overall revenue increased compared with the same period of last year. The overall operating income and gross profit of this category achieved impressive results due to the mass production of new products, price adjustments and the high market share of MCU chips for smart meters. The Company's MCU is making good progress in the general field, and has been involved in utility, smart home appliances, smart home, new energy and other application scenarios, and has achieved mass production.

### 4. FPGA and other chips

During the Reporting Period, the operating income of this category of products increased by 120.84% compared with the same period of last year, mainly because the current technology of 100 million gate FPGA chips has matured to meet the expectations of end customers and the demand has increased significantly. The product requires large investment in research and development and with high requirements in terms of process and technology, and also has a higher gross profit margin than other products.

# Management Discussion and Analysis

## (IV) MANAGEMENT DISCUSSION AND ANALYSIS *(Continued)*

### 5. Testing services

There was decrease in operating activities in the Reporting Period due to the epidemic in the second quarter. However, with the continuous improvement of China's economic operation, the Company continued to optimize technology and products, strengthen market development in key industries, and further enhance the market position of high-end integrated circuit testing business, achieving steady growth in sales and profitability.

## (V) RISK FACTORS

### 1. Risk of new product development and technology iteration

The integrated circuit design industry in which the company operates is a typical technology-intensive industry, where technology upgrades and product iterations are fast. At the same time, chip products have high technical barriers and the advantages of first-mover companies are obvious. The Company will face the risk of being seized by competitors for market share if the Company misjudges the market demand in the follow-up research and development process or the research and development progress becomes slow. In addition, high-end chip research and development has the characteristics of long development cycle, large capital investment, and high research and development risk. During the research and development process, some key technologies may be failed to break through or product performance, parameters, yield, etc. which may not meet the needs of the market and there is risk of failure of research and development and falling behind next-generation technology.

### 2. Risk of industry slowdown

In recent years, the uncertainty of global economic has increased, the impact of the epidemic on the consumer market, the structural easing of production capacity, and the digestion of pre-existing inventories have led to a downward trend in the demand for some chips represented by consumer electronics products. Although the Company's product line covers industrial-grade products, consumption, high reliability and other application scenarios, and has a strong ability to resist fluctuations, if there is an industry-wide slowdown in growth, it may adversely affect the Company's performance.

### 3. Risk of COVID epidemic on materials and people

The COVID epidemic continues one after another, and the duration and scope of its impact are still difficult to estimate. If the epidemic continues or intensifies, it cannot be ruled out that China or the countries where the Company's customers and suppliers are located will take new epidemic prevention measures, which will adversely affect the Company's operating results.

### 4. Risk of falling of product selling price and gross profit margin

Benefiting from the industry boom and the technological advantages formed by the Company's long-term accumulation, the Company maintains a high level of gross profit margin currently. The average selling price and comprehensive gross profit margin of the Company's main products will face the risk of continuous decline if the Company cannot take effective measures to consolidate and enhance the competitiveness of its products due to the advancement of technology, the increase in the prices of labor and raw materials, the decline of the Company's product bargaining power, or the major changes in the industry in the future, which will result in the Company being in a disadvantageous position in the fierce market competition and reducing the sustainable profitability.

# Management Discussion and Analysis

## (V) RISK FACTORS *(Continued)*

### 5. Risk of high supplier concentration and price fluctuations of raw materials

The Company operates in the Fabless mode. The Company mainly designs and sells integrated circuits. The production links such as wafer manufacturing, packaging and testing are mainly completed by professional wafer foundries and packaging and testing manufacturers. The concentration of this industry is relatively high, and accordingly the concentration of the Company's suppliers is also relatively high; at the same time, due to industry fluctuations and changes in production capacity, raw material prices will also become fluctuate. The aforementioned factors have a direct impact on the profitability of the Company.

### 6. Risk of structural fluctuations in production capacity

The Company operates in a Fabless mode and has established long-term cooperative relations with major wafer manufacturers and packaging and testing manufacturers in the industry. With years of stable cooperation, rich product lines and growing business volume, the Company can obtain a certain capacity guarantee. During the Reporting Period, although the production capacity in some areas of the industry had increased, the production capacity of high-end products required by the Company still needs to be further expanded. If the production capacity cannot meet the needs of the Company's business development, it will have an impact on the Company's business.

### 7. Risk of impact of international trade on the industrial chain

There are greater impact on the risk of the Company's operations from international trade environment. In recent years, the uncertainty of the international trade environment has increased, anti-globalization tradeism has further spread, some countries have adopted trade protection measures, and the development of some industries in China has been affected to a certain extent. The integrated circuit industry has the typical characteristics of globalized division of labor and cooperation. If there are major adverse changes in the international trade environment, further escalation of trade frictions between countries and regions, and continued global trade protectionism, the production and operation of upstream and downstream companies in the integrated circuit industry chain may be affected. It may affect the upstream and downstream transaction costs of the industrial chain adversely which may also affect the operation of the Company adversely.

### 8. Risk of Intellectual property and legal

Chip design is a technology-intensive industry, and the final chip product is highly complex. Therefore, even if the Company has taken strict intellectual property protection measures and quality control measures, etc., it is still unable to eliminate legal risks completely that caused by intellectual property disputes, technology licensing risks (EDA design tools, IP core licensing, etc.) and disputes caused by product quality defects.

### 9. Risk of inventory devaluation

The Company's inventories are mainly chips and wafers. Influenced by factors such as the increasingly intensified sales competition in the chip market and the increasingly tight capacity supply of major wafer foundries, the Company gradually expanded the stocking scale during the Reporting Period in order to ensure the supply of goods. At the end of the Reporting Period, the book value of the Company's inventories was approximately RMB1,092,975,100, accounting for 30.46% of the total current assets at the end of the corresponding period. The Company makes corresponding provision of impairment every year based on the amount of the net realizable value of inventories lower than the cost. At the end of the Reporting Period, the balance of the Company's provision of impairment of inventory was approximately RMB123,616,400 million, and the ratio of provision of impairment of inventory was 10.16%. If the market demand changes in the future, the market competition intensifies or the product replacement is accelerated due to repeated technical calculations, the risk of impairment of inventory may increase, which will have an adverse impact on the Company's operating results.

# Management Discussion and Analysis

## (V) RISK FACTORS *(Continued)*

### 10. Financial risks associated with Research and Development

The Company attaches great importance to the independent research and development of core technologies. During the Reporting Period, the research and development investment was about RMB399 million, representing 23.42% of operating income during the Reporting Period, and the research and development investment intensity was relatively high. If the intangible assets formed by the development expenditure are provided and amortized, or the development expenditure is written off or the intangible assets are impaired, it may have a greater impact on the profit of the Company.

### 11. Risk of collection of accounts receivable and notes receivable

At the end of the Reporting Period, the carrying amount of the Company's accounts receivable was approximately RMB768,254,900, and the carrying amount of notes receivable was approximately RMB389,114,400. The total carrying amounts of accounts receivable and notes receivable accounts for 67.99% of operating income. If the macroeconomic situation, industry development prospects and other factors change in the future adversely, and there are major difficulties of customer's operating conditions, the Company may face the risk of increasing bad debt losses due to uncollectible accounts receivable and notes receivable.

## (VI) MAIN BUSINESS SITUATION IN THE REPORTING PERIOD

### Main business analysis

#### 1. Analysis of Changes in Financial Statements Related Subjects

Item	Half-year ended 30 June		RMB
	2022	2021	Change (%)
Operating income	<b>1,702,333,354.86</b>	1,128,663,994.43	50.83
Operating costs	<b>595,871,463.68</b>	505,351,672.93	17.91
Selling expenses	<b>97,749,760.73</b>	71,929,138.58	35.90
Administrative expenses	<b>59,861,206.32</b>	47,168,361.98	26.91
Financial expenses	<b>(4,302,779.35)</b>	59,476.11	N/A
Research & Development expenses	<b>373,782,494.19</b>	306,010,449.01	22.15
Asset impairment losses	<b>41,841,987.73</b>	15,358,562.81	172.43
Net cash flow from operating activities	<b>329,107,161.67</b>	235,732,498.87	39.61
Net cash flows used in investing activities	<b>(147,438,450.40)</b>	(348,473,034.71)	-57.69
Net cash flow (used in)/from financing activities	<b>(82,381,852.95)</b>	42,477,890.77	N/A

# Management Discussion and Analysis

## (VI) MAIN BUSINESS SITUATION IN THE REPORTING PERIOD (Continued)

### Main business analysis (Continued)

#### 1. Analysis of Changes in Financial Statements Related Subjects (Continued)

Reasons for changes in operating income: the Company developed markets and new customers actively, continued to optimize product and customer structure, overcame the impact of the epidemic, and safeguarded the supply chain, resulting in a substantial increase in operating income from design and sales of integrated circuits during the Reporting Period.

Reasons for changes in operating costs: mainly due to the corresponding cost increased according to the increase in operating income during the Reporting Period, and at the same time, the upstream suppliers increased the price thus the product cost also increased.

Reasons for changes in selling expenses: the expansion of the Company's business scale and the increase in number of employees and wages resulted in an increase in personnel expenses; at the same time, the restricted share incentive scheme was implemented, and thus the share-based payment expenses increased during the Reporting Period.

Reasons for changes in administrative expenses: this is mainly due to there was reasonable increase of employee salaries in order to improve management capabilities and increase in the depreciation of newly purchased office buildings and the amortization of decoration costs during the Reporting Period.

Reasons for changes in financial expenses: this is mainly due to the Company issued shares to raise funds and there was increment of operating cash flow which resulting in an increase in the corresponding interest income during the Reporting Period.

Reasons for changes in Research & Development expenses: in order to maintain the competitiveness of research and development, the Company increased the salary of employees reasonably, and at the same time implemented the restricted share incentive scheme thus the share-based payment expenses increased during the Reporting Period.

Reasons for changes in asset impairment losses: mainly due to there were changes in market supply and demand for some products and an increase in overall inventory during the Reporting Period which resulting in an increase in inventory impairment losses.

Reasons for changes in net cash flow from operating activities: mainly due to the increase in the Company's operating income and there was increase in payment for goods received due to strengthening the management of receivables during the Reporting Period.

Reasons for changes in net cash flow used in investing activities: mainly due to the fact that the monetary funds and financial assets held for trading of the Company were expired which resulting in an increase in cash received from investment activities during the Reporting Period.

Reasons for changes in net cash flow (used in)/from financing activities: mainly due to the Company repaid bank borrowings during the Reporting Period.

# Management Discussion and Analysis

## (VI) MAIN BUSINESS SITUATION IN THE REPORTING PERIOD (Continued)

### Main business analysis (Continued)

#### 2. Analysis of assets and liabilities

##### Status of assets and liabilities

Item	RMB				
	Balance as at 30 June 2022 as a 30 June 2022	percentage of total assets (%)	31 December 2021	Balance as at 31 December 2021 as a percentage of total asset (%)	Change in balance as at the end of the Reporting Period as compared with last year (%)
Financial assets held for trading	<b>250,428,219.18</b>	5.03	390,948,111.87	9.39	-35.94
Accounts receivable	<b>768,254,860.27</b>	15.44	451,703,130.78	10.85	70.08
Prepayment	<b>209,790,072.59</b>	4.22	84,362,851.17	2.03	148.68
Inventories	<b>1,092,975,063.34</b>	21.96	916,083,064.72	21.99	19.31
Fixed assets	<b>746,178,715.99</b>	14.99	567,876,494.59	13.63	31.40
Construction in progress	<b>108,061,736.57</b>	2.17	54,689,418.53	1.31	97.59
Accounts payable	<b>252,162,977.03</b>	5.07	200,262,918.53	4.81	25.92
Contract liabilities	<b>304,071,800.33</b>	6.11	126,274,826.25	3.03	140.80
Taxes payable	<b>33,168,124.77</b>	0.67	15,731,095.55	0.38	110.84
Other payables	<b>78,981,980.18</b>	1.59	31,163,593.01	0.75	153.44

Reasons for changes in financial assets held for trading: mainly due to the redemption of structured deposits purchased by the Company during the Reporting Period.

Reasons for changes in accounts receivable: mainly due to the substantial increase in the Company's operating income during the Reporting Period and thus there was corresponding increase in accounts receivable.

Reasons for changes in prepayment: the Company's business scale expanded and some suppliers' production capacity was tight. In order to ensure stable production capacity, prepayments to suppliers increased during the Reporting Period.

Reasons for changes in inventories: mainly due to the expansion of the Company's business scale, the tight upstream supply chain, the prolonged production cycle, and a reasonable increase in stocking to meet market demand during the Reporting Period.

Reasons for changes in fixed assets: mainly due to the expansion of the Company's business scale and the purchase of testing equipment and office buildings during the Reporting Period.

Reasons for changes in construction in progress: mainly due to the expansion of the subsidiary's operating scale and the increase in the purchase of equipment to be commissioned during the Reporting Period.

# Management Discussion and Analysis

## (VI) MAIN BUSINESS SITUATION IN THE REPORTING PERIOD *(Continued)*

### Main business analysis *(Continued)*

#### 2. *Analysis of assets and liabilities (Continued)*

##### *Status of assets and liabilities (Continued)*

Reasons for changes in accounts payable: mainly due to the expansion of the Company's business scale and the increase in material procurement and entrusted processing services during the Reporting Period.

Reasons for changes in contract liabilities: the Company's downstream application market demand was strong and orders increased, some products were in short supply, and the increase in prepayments from customers led to an increase in contract liabilities in the Reporting Period.

Reasons for changes in taxes payable: mainly due to the increase in the Company's operating income and employee wages during the Reporting Period, which led to an increase in taxes payable such as value-added tax and personal income tax.

Reasons for changes in other payables: mainly due to the fact that the Company had not distributed the dividend for 2021, resulting in an increase in dividends payable in the Reporting Period.

## USE OF PROCEEDS

In 2021, the Company had its first initial public offering of A shares in the PRC and listed on the Shanghai Stock Exchange upon completion of issuance. The Company offered to the public for 120,000,000 RMB ordinary shares of RMB0.1 each for an issuance price of RMB6.23 per share. The total amount raised was RMB747,600,000 and the actual net proceeds after deducting issuing expenses (tax not inclusive) was RMB680,282,800.

On 27 August 2021, the Board has approved:

1. the Proposal on the Replacement of Self-raised Funds Invested in Advance with Proceeds from the Issuance (關於使用募集資金置換預先投入的自籌資金的議案), which agreed the Company to replace the self-raised funds invested in advance in investment projects with proceeds from the Issuance amounting to RMB374,561,298.30, and the replacement of self-raised funds used in advance for the payment of issuance expenses with proceeds from the Issuance amounting to RMB5,730,425.73. In aggregate, the Company will replace self-raised funds invested in advance with proceeds amounting to RMB380,291,724.03.
2. the Proposal on Using Temporarily Idle Proceeds for Cash Management (關於使用暫時閒置募集資金進行現金管理的議案), which agreed the Company to use the idle proceeds for cash management under the condition that it does not affect the progress of the investment plan of the proceeds, does not affect the normal production and operation of the Company, and ensures the safety of funds. The Company can use the temporarily idle proceeds of not exceeding RMB250 million (inclusive) to purchase investment products with high security, good liquidity, and capital protection agreements (including but not limited to purchasing principal-guaranteed wealth management products, structured deposits, large deposit certificates, time deposits, call deposits and income certificates). The period of use is valid within 12 months from the date of consideration and approval by the Board of the Company. Within the aforesaid limit and period of use, the amounts can be used on a rolling basis.

# Management Discussion and Analysis

## USE OF PROCEEDS *(Continued)*

3. the Proposal on Using Part of the Over-raised Proceeds to Permanently Supplement Working Capital (關於使用部分超募資金永久補充流動資金的議案), which agreed the Company to use part of the overraised proceeds of RMB24 million for permanent supplement of working capital.

## Use of proceeds and balance of funds

As at 30 June 2022, the balance of fund raising amounted to RMB200,918,842.34, the use of proceeds and balance of funds were:

	RMB
Balance of special account for fund raising as at 31 December 2021, including cash management products	260,613,417.03
Less: Expenditures of fund raising projects-	
Development and Technology Reserve Funds	63,512,665.61
Add: Accumulated income from cash management of fund raising	3,265,259.58
Accumulated interest income net of charges	552,831.34
Balance of special account for fund raising as at 30 June 2022, including cash management products	200,918,842.34

In accordance with the approval for revision of use of proceeds from fund raising on the extraordinary general meeting of the Company held on 28 September 2020, the Company will keep the expected timetable to use the unutilized balance for the purpose of “Reserve for technology research and development” within two years after the listing date of A shares (4 August 2021).

# Consolidated Balance Sheet (Unaudited)

30 June 2022

Item	Note	RMB	
		30 June 2022 (unaudited)	31 December 2021 (audited)
<b>Current assets:</b>			
Cash at bank and on hand	(4)	853,362,710.92	801,647,230.19
Financial assets held for trading	(5)	250,428,219.18	390,948,111.87
Notes receivable	(6)	389,114,405.58	372,363,594.25
Accounts receivable	(7)	768,254,860.27	451,703,130.78
Prepayments	(8)	209,790,072.59	84,362,851.17
Other receivables	(9)	16,728,356.40	18,473,721.44
Inventories	(10)	1,092,975,063.34	916,083,064.72
Other current assets	(11)	7,638,567.34	6,081,071.74
<b>Total current assets</b>		<b>3,588,292,255.62</b>	<b>3,041,662,776.16</b>
<b>Non-current assets:</b>			
Long-term equity investments	(12)	72,453,413.98	75,508,769.52
Investment in other equity instruments	(13)	33,322,821.94	32,987,123.03
Fixed assets	(14)	746,178,715.99	567,876,494.59
Construction in progress	(15)	108,061,736.57	54,689,418.17
Right-of-use assets	(16)	45,946,416.59	47,942,433.91
Intangible assets	(17)	66,612,097.49	74,833,172.67
Development costs	(18)	197,975,526.93	172,728,127.43
Long-term prepaid expenses	(19)	68,629,423.94	57,378,801.04
Deferred income tax assets	(20)	7,777,829.87	7,484,219.27
Other non-current assets	(21)	41,470,334.86	31,922,847.40
<b>Total non-current assets</b>		<b>1,388,428,318.16</b>	<b>1,123,351,407.03</b>
<b>Total assets</b>		<b>4,976,720,573.78</b>	<b>4,165,014,183.19</b>
<b>Current liabilities:</b>			
Short-term borrowings	(22)	–	100,000.00
Accounts payable	(23)	252,162,977.03	200,262,918.53
Contract liabilities	(24)	304,071,800.33	126,274,826.25
Employee benefits payables	(25)	143,208,910.14	162,012,097.14
Taxes payables	(26)	33,168,124.77	15,731,095.55
Other payables	(27)	78,981,980.18	31,163,593.01
Non-current liabilities due within one year	(28)	16,036,295.69	44,832,935.50
Other current liabilities	(29)	158,350,750.35	132,771,061.35
<b>Total current liabilities</b>		<b>985,980,838.49</b>	<b>713,148,527.33</b>

# Consolidated Balance Sheet (Unaudited)

30 June 2022

Item	Note	RMB	
		30 June 2022 (unaudited)	31 December 2021 (audited)
<b>Non-current liabilities:</b>			
Long-term borrowings	(30)	–	18,200,000.00
Lease liabilities	(31)	<b>37,650,504.11</b>	38,553,525.36
Deferred income	(32)	<b>18,219,146.00</b>	24,215,577.84
Deferred income tax liabilities	(20)	<b>3,994,111.42</b>	3,994,006.16
Total non-current liabilities		<b>59,863,761.53</b>	84,963,109.36
Total liabilities		<b>1,045,844,600.02</b>	798,111,636.69
<b>Owners' equity (or shareholders' equity):</b>			
Paid-in capital (or share capital)	(33)	<b>81,450,200.00</b>	81,450,200.00
Capital reserve	(34)	<b>1,332,911,573.07</b>	1,259,212,929.93
Other comprehensive income	(35)	<b>12,169,196.91</b>	10,509,082.70
Surplus reserve	(36)	<b>40,725,100.00</b>	40,725,100.00
Undistributed profit	(37)	<b>2,225,937,248.52</b>	1,748,348,393.72
Total owners' equity attributable to the Company (or shareholders' equity)		<b>3,693,193,318.50</b>	3,140,245,706.35
Minority interest		<b>237,682,655.27</b>	226,656,840.15
Total owners' equity (or shareholders' equity)		<b>3,930,875,973.77</b>	3,366,902,546.50
Total liabilities and owners' equity (or shareholders' equity)		<b>4,976,720,573.78</b>	4,165,014,183.19

# Balance Sheet of the Parent Company (Unaudited)

30 June 2022

Item	Note	RMB	
		30 June 2022 (unaudited)	31 December 2021 (audited)
<b>Current assets:</b>			
Cash at bank and on hand		622,768,277.26	531,198,432.32
Financial assets held for trading		250,428,219.18	390,948,111.87
Notes receivable		362,812,439.02	333,458,591.22
Accounts receivable	(66)1	743,793,215.22	446,084,192.25
Prepayments		208,852,400.78	83,590,357.42
Other receivables	(66)2	3,093,674.17	3,115,175.04
Inventories		1,090,609,444.83	913,224,523.66
Other current assets		2,254,960.29	444,878.11
<b>Total current assets</b>		<b>3,284,612,630.75</b>	<b>2,702,064,261.89</b>
<b>Non-current assets:</b>			
Long-term equity investments	(66)3	117,120,415.92	120,245,620.99
Investment in other equity instruments		26,611,443.62	26,611,443.62
Fixed assets		632,605,884.53	441,049,415.95
Construction in progress		29,137,100.57	27,126,966.12
Right-of-use assets		14,020,887.50	17,064,328.30
Intangible assets		66,612,097.49	74,833,172.67
Development costs		201,238,298.03	175,990,898.53
Long-term prepaid expenses		44,993,758.07	29,314,142.69
Other non-current assets		2,469,972.28	5,142,877.20
<b>Total non-current assets</b>		<b>1,134,809,858.01</b>	<b>917,378,866.07</b>
<b>Total assets</b>		<b>4,419,422,488.76</b>	<b>3,619,443,127.96</b>
<b>Current liabilities:</b>			
Short-term borrowings		–	100,000.00
Accounts payable		256,891,462.12	201,228,542.50
Contract liabilities		302,453,865.04	124,745,290.02
Employee benefits payables		138,836,693.73	151,432,889.17
Taxes payables		31,684,576.55	10,966,486.24
Other payables		75,660,731.09	27,461,397.62
Non-current liabilities due within one year		5,506,418.14	37,065,328.94
Other current liabilities		125,544,680.01	100,288,476.70
<b>Total current liabilities</b>		<b>936,578,426.68</b>	<b>653,288,411.19</b>

# Balance Sheet of the Parent Company (Unaudited)

30 June 2022

Item	Note	RMB	
		30 June 2022 (unaudited)	31 December 2021 (audited)
<b>Non-current liabilities:</b>			
Long-term borrowings		–	18,200,000.00
Lease liabilities		<b>9,871,681.85</b>	12,277,032.04
Deferred income		<b>7,433,339.42</b>	11,490,362.27
Deferred tax liabilities		<b>3,991,716.54</b>	3,991,716.54
Total non-current liabilities		<b>21,296,737.81</b>	45,959,110.85
Total liabilities		<b>957,875,164.49</b>	699,247,522.04
<b>Owners' equity (or shareholders' equity):</b>			
Paid-in capital (or share capital)		<b>81,450,200.00</b>	81,450,200.00
Capital reserve		<b>1,321,996,967.76</b>	1,248,298,324.62
Other comprehensive income		<b>14,120,625.68</b>	14,120,625.68
Surplus reserve		<b>40,725,100.00</b>	40,725,100.00
Undistributed profit		<b>2,003,254,430.83</b>	1,535,601,355.62
Total owners' equity (or shareholders' equity)		<b>3,461,547,324.27</b>	2,920,195,605.92
Total liabilities and owners' equity (or shareholders' equity)		<b>4,419,422,488.76</b>	3,619,443,127.96

# Consolidated Income Statement (Unaudited)

For the half-year ended 30 June 2022

Item	Note	RMB	
		Half-year ended 30 June 2022 (unaudited)	2021 (unaudited)
<b>Total operating income</b>	(38)	<b>1,702,333,354.86</b>	1,128,663,994.43
Including: Operating income		<b>1,702,333,354.86</b>	1,128,663,994.43
Total operating costs		<b>1,136,161,435.26</b>	934,452,973.79
Including: Operating costs		<b>595,871,463.68</b>	505,351,672.93
Business taxes and surcharges	(39)	<b>13,199,289.69</b>	3,933,875.18
Selling expenses	(40)	<b>97,749,760.73</b>	71,929,138.58
Administrative expenses	(41)	<b>59,861,206.32</b>	47,168,361.98
Research and development expenses	(42)	<b>373,782,494.19</b>	306,010,449.01
Finance expenses	(43)	<b>(4,302,779.35)</b>	59,476.11
Including: Interest expenses		<b>2,255,619.55</b>	1,676,190.62
Interest income		<b>7,515,651.26</b>	3,057,453.39
Add: Other income	(44)	<b>24,206,240.47</b>	43,497,630.51
Investment income/(loss)	(45)	<b>865,001.98</b>	(2,500,004.75)
Including: Investment loss from associates and joint venture		<b>(3,055,355.07)</b>	(2,500,004.75)
Gains from changes in fair value	(46)	<b>1,039,641.10</b>	–
Credit impairment losses	(47)	<b>(5,545,285.19)</b>	(2,041,851.76)
Assets impairment losses	(48)	<b>(41,841,987.73)</b>	(15,358,562.81)
(Loss)/Gain on disposal of assets	(49)	<b>(4,605.35)</b>	177,025.39
<b>Operating profits</b>		<b>544,890,924.88</b>	217,985,257.22
Add: Non-operating income	(50)	<b>21,222.51</b>	–
Less: Non-operating expenses	(51)	<b>–</b>	1,974.35
<b>Total profits</b>		<b>544,912,147.39</b>	217,983,282.87
Less: Income tax expenses	(52)	<b>3,354,847.47</b>	6,290,738.75
<b>Net profits</b>		<b>541,557,299.92</b>	211,692,544.12

# Consolidated Income Statement (Unaudited)

For the half-year ended 30 June 2022

Item	Note	RMB	
		Half-year ended 30 June 2022 (unaudited)	2021 (unaudited)
Net profits attributable to shareholders of the Company		530,531,484.80	194,343,292.11
Gains or losses of minority interests		11,025,815.12	17,349,252.01
<b>Net other comprehensive income after tax</b>		<b>1,660,114.21</b>	<b>(245,740.02)</b>
Net other comprehensive income after tax attributable to owners of the Company		1,660,114.21	(245,740.02)
Other comprehensive income that will be reclassified to profit or loss		1,660,114.21	(245,740.02)
Exchange differences arising from translation of foreign currency denominated financial statements		1,660,114.21	(245,740.02)
<b>Total comprehensive income</b>		<b>543,217,414.14</b>	<b>211,446,804.10</b>
Total comprehensive income attributable to owners of the company		532,191,599.02	194,097,552.09
Total comprehensive income attributable to minority interests		11,025,815.12	17,349,252.01
<b>Earnings per share:</b>			
Basic earnings per share (RMB/share)		0.65	0.28
Diluted earnings per share (RMB/share)		0.65	0.28

# Income Statement of the Parent Company (Unaudited)

For the half-year ended 30 June 2022

Item	Note	RMB	
		Half-year ended 30 June 2022 (unaudited)	2021 (unaudited)
<b>Operating income</b>	(66)4	<b>1,599,895,619.52</b>	1,010,969,423.49
Less: Operating costs	(66)4	<b>549,125,754.48</b>	467,589,672.31
Business taxes and surcharges		<b>13,124,746.88</b>	3,820,898.07
Distribution costs		<b>95,478,860.80</b>	67,552,356.06
Administrative expenses		<b>39,019,883.98</b>	32,295,177.60
Research and development expenses		<b>360,922,249.34</b>	282,631,480.49
Finance costs		<b>(2,961,339.33)</b>	634,189.27
Including: Interest expenses		<b>1,380,463.77</b>	768,241.59
Interest income		<b>5,922,731.33</b>	1,432,420.35
Add: Other income		<b>20,561,228.31</b>	34,962,499.22
Investment income/(loss)	(66)4	<b>795,151.98</b>	(2,500,004.75)
Including: Investment loss from associates and joint venture		<b>(3,125,205.07)</b>	(2,500,004.75)
Gains from changes in fair value		<b>1,039,641.10</b>	–
Impairment loss on credit		<b>(5,138,506.85)</b>	(1,125,812.81)
Impairment loss on assets		<b>(41,841,987.73)</b>	(15,358,562.81)
(Loss)/Gain on disposal of assets		<b>(5,284.97)</b>	177,025.39
<b>Operating profits</b>		<b>520,595,705.21</b>	172,600,793.93
<b>Total profits</b>		<b>520,595,705.21</b>	172,600,793.93
<b>Net profits</b>		<b>520,595,705.21</b>	172,600,793.93
Net other comprehensive income after tax		–	–
<b>Total comprehensive income</b>		<b>520,595,705.21</b>	172,600,793.93

# Consolidated Cash Flows Statement (Unaudited)

For the half-year ended 30 June 2022

Item	Note	RMB	
		Half-year ended 30 June 2022 (unaudited)	2021 (unaudited)
<b>Cash flow generated from operating activities:</b>			
Cash received from sale of goods and rendering of services		1,735,470,045.19	1,291,822,753.85
Refund of taxes and levies received		9,022,427.25	6,178,249.39
Other cash received relating to operating activities	(53)	6,210,752.69	22,646,213.51
Sub-total of cash inflow from operating activities		1,750,703,225.13	1,320,647,216.75
Cash paid for purchase of goods and services received		816,845,082.90	637,192,051.86
Cash paid to and on behalf of employees		417,164,869.35	314,508,276.13
Payments of all types of taxes and levies		128,123,315.29	42,392,808.12
Other cash paid relating to operating activities	(53)	59,462,795.92	90,821,581.77
Sub-total of cash outflow from operating activities		1,421,596,063.46	1,084,914,717.88
Net cash flow generated from operating activities		329,107,161.67	235,732,498.87
<b>Net cash flow used in investing activities</b>			
Cash received from recovery of investments		190,682,321.76	–
Cash received from return on investments		1,039,788.75	–
Net cash recovered from disposal of fixed assets, intangible assets and other long-term assets		6,000.00	223,361.29
Other cash received relating to investing activities	(53)	6,277,029.76	2,352,004.37
Sub-total of cash inflow from investing activities		198,005,140.27	2,575,365.66
Cash paid for acquisition and construction of fixed assets, intangible assets and other long-term assets		345,443,590.67	325,143,816.57
Cash paid for investments		–	25,904,583.80
Sub-total of cash outflow from investing activities		345,443,590.67	351,048,400.37
Net cash flow used in investing activities		(147,438,450.40)	(348,473,034.71)

# Consolidated Cash Flows Statement (Unaudited)

For the half-year ended 30 June 2022

Item	Note	RMB	
		Half-year ended 30 June 2022 (unaudited)	2021 (unaudited)
<b>Cash flow (used in)/generated from financing activities:</b>			
Cash received from loans obtained		–	49,937,669.72
Sub-total of cash inflow from financing activities		–	49,937,669.72
Cash repayments of borrowings		<b>74,730,406.29</b>	–
Cash paid for distribution of dividends, profit or interest expenses		<b>549,359.63</b>	266,336.21
Other cash paid relating to financing activities	(54)	<b>7,102,087.03</b>	7,193,442.74
Sub-total of cash inflow from financing activities		<b>82,381,852.95</b>	7,459,778.95
Net cash flow (used in)/generated from financing activities		<b>(82,381,852.95)</b>	42,477,890.77
Effect of changes in foreign exchange rate on cash and cash equivalents		<b>(2,617,014.62)</b>	(1,228,755.12)
Net increase/(decrease) in cash and cash equivalents		<b>96,669,843.70</b>	(71,491,400.19)
Add: Balance of cash and cash equivalents at the beginning of the period		<b>415,755,306.55</b>	279,369,367.09
Balance of cash and cash equivalents at the end of the period		<b>512,425,150.25</b>	207,877,966.90

# Cash Flows Statement of the Parent Company (Unaudited)

For the half-year ended 30 June 2022

Item	RMB	
	Half-year ended 30 June	
	2022	2021
	(unaudited)	(unaudited)
<b>Cash flow generated from operating activities:</b>		
Cash received from sale of goods and rendering of services	1,577,076,360.96	1,178,651,981.88
Refund of tax and levies received	9,022,427.25	6,178,249.39
Other cash received relating to operating activities	4,949,696.59	20,153,404.03
Sub-total of cash inflow from operating activities	1,591,048,484.80	1,204,983,635.30
Cash paid for purchase of goods and services received	766,829,115.47	636,774,479.19
Cash paid to and on behalf of employees	368,407,487.87	272,437,753.12
Payments of all types of taxes and levies	121,017,925.65	34,103,202.17
Other cash paid relating to operating activities	49,501,842.06	53,577,008.16
Sub-total of cash outflow from operating activities	1,305,756,371.05	996,892,442.64
Net cash flow generated from operating activities	285,292,113.75	208,091,192.66
<b>Cash flow used in investing activities:</b>		
Cash received from recovery of investments	142,648,388.58	-
Net cash recovered from disposal of fixed assets, intangible assets and other long-term assets	-	223,361.29
Other cash received relating to investing activities	6,242,710.09	859,780.82
Sub-total of cash inflow from investing activities	148,891,098.67	1,083,142.11
Cash paid for acquisition and construction of fixed assets, intangible assets and other long-term assets	264,106,792.35	273,164,747.25
Cash paid for investments	-	1,624,676.03
Sub-total of cash outflow from investing activities	264,106,792.35	274,789,423.28
Net cash flow used in investing activities	(115,215,693.68)	(273,706,281.17)

# Cash Flows Statement of the Parent Company (Unaudited)

For the half-year ended 30 June 2022

Item	RMB	
	Half-year ended 30 June 2022 (unaudited)	2021 (unaudited)
<b>Cash flow (used in)/generated from financing activities:</b>		
Cash received from loans obtained	–	49,937,669.72
Sub-total of cash inflow from financing activities	–	49,937,669.72
Cash repayments of borrowings	74,730,406.29	–
Cash paid for distribution of dividends, profit or interest expenses	549,359.63	266,336.21
Other cash paid relating to financing activities	3,097,879.23	3,198,627.05
Sub-total of cash outflow from financing activities	78,377,645.15	3,464,963.26
Net cash flow (used in)/generated from financing activities	(78,377,645.15)	46,472,706.46
Effect of changes in foreign exchange rate on cash and cash equivalents	(3,195,152.25)	(1,117,913.59)
Net increase/(decrease) in cash and cash equivalents	88,503,622.67	(20,260,295.64)
Add: Balance of cash and cash equivalents at the beginning of the period	254,334,093.91	141,551,283.58
Balance of cash and cash equivalents at the end of the period	342,837,716.58	121,290,987.94

# Consolidated Statement of Changes in Owners' Equity (Unaudited)

For the half-year ended 30 June 2022

	RMB							Total owners' equity
	Paid-in capital (or share capital)	Owners' equity attributable to the Parent Company				Subtotal	Minority interest	
		Capital reserve	Other comprehensive income	Surplus reserve	Undistributed profit			
At 31 December 2021 and at 1 January 2022	81,450,200.00	1,259,212,929.93	10,509,082.70	40,725,100.00	1,748,348,393.72	3,140,245,706.35	226,656,840.15	3,366,902,546.50
Increase/decrease in the current period	-	73,698,643.14	1,660,114.21	-	477,588,854.80	552,947,612.15	11,025,815.12	563,973,427.27
Total comprehensive income	-	-	1,660,114.21	-	530,531,484.80	532,191,599.01	11,025,815.12	543,217,414.13
Capital contribution and withdrawal by owners	-	73,698,643.14	-	-	-	73,698,643.14	-	73,698,643.14
Amount of share-based payment included in owners' equity	-	73,698,643.14	-	-	-	73,698,643.14	-	73,698,643.14
Others	-	-	-	-	(52,942,630.00)	(52,942,630.00)	-	(52,942,630.00)
At 30 June 2022	81,450,200.00	1,332,911,573.07	12,169,196.91	40,725,100.00	2,225,937,248.52	3,693,193,318.50	237,682,655.27	3,930,875,973.77

For the half-year ended 30 June 2021

	RMB							Total owners' equity
	Paid-in capital (or share capital)	Owners' equity attributable to the Parent Company				Subtotal	Minority interest	
		Capital reserve	Other comprehensive income	Surplus reserve	Undistributed profit			
At 31 December 2020 and at 1 January 2021	69,450,200.00	576,858,667.16	9,336,778.97	35,478,142.63	1,239,128,570.38	1,930,252,359.14	181,798,911.07	2,112,051,270.21
Increase/decrease in the current period	-	654,615.12	(245,740.02)	-	194,343,292.11	194,752,167.21	17,349,252.21	212,101,419.42
Total comprehensive income	-	-	(245,740.02)	-	194,343,292.11	194,097,552.09	17,349,252.21	211,446,804.30
Capital contribution and withdrawal by owners	-	654,615.12	-	-	-	654,615.12	-	654,615.12
Amount of share-based payment included in owners' equity	-	654,615.12	-	-	-	654,615.12	-	654,615.12
At 30 June 2021	69,450,200.00	577,513,282.28	9,091,038.95	35,478,142.63	1,433,471,862.49	2,125,004,526.35	199,148,163.28	2,324,152,689.63

# Statement of Changes in Owners' Equity of the Parent Company (Unaudited)

For the half-year ended 30 June 2022

	RMB					
	Paid-in capital (or share capital)	Capital reserve	Other comprehensive income	Surplus reserve	Undistributed profit	Total owners' equity
At 31 December 2021 and at 1 January 2022	81,450,200.00	1,248,298,324.62	14,120,625.68	40,725,100.00	1,535,601,355.62	2,920,195,605.92
Increase/decrease in the current period	-	73,698,643.14	-	-	467,653,075.21	541,351,718.35
Total comprehensive income	-	-	-	-	520,595,705.21	520,595,705.21
Capital contribution and withdrawal by owners	-	73,698,643.14	-	-	-	73,698,643.14
Amount of share-based payment included in owners' equity	-	73,698,643.14	-	-	-	73,698,643.14
Others	-	-	-	-	(52,942,630.00)	(52,942,630.00)
<b>At 30 June 2022</b>	<b>81,450,200.00</b>	<b>1,321,996,967.76</b>	<b>14,120,625.68</b>	<b>40,725,100.00</b>	<b>2,003,254,430.83</b>	<b>3,461,547,324.27</b>

For the half-year ended 30 June 2021

	RMB					
	Paid-in capital (or share capital)	Capital reserve	Other comprehensive income	Surplus reserve	Undistributed profit	Total owners' equity
At 31 December 2020 and at 1 January 2021	69,450,200.00	565,944,061.85	12,188,894.76	35,478,142.63	1,071,862,319.60	1,754,923,618.84
Increase/decrease in the current period	-	654,615.12	-	-	172,600,793.93	173,255,409.05
Total comprehensive income	-	-	-	-	172,600,793.93	172,600,793.93
Capital contribution and withdrawal by owners	-	654,615.12	-	-	-	654,615.12
Amount of share-based payment included in owners' equity	-	654,615.12	-	-	-	654,615.12
<b>At 30 June 2021</b>	<b>69,450,200.00</b>	<b>566,598,676.97</b>	<b>12,188,894.76</b>	<b>35,478,142.63</b>	<b>1,244,463,113.53</b>	<b>1,928,179,027.89</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (1) BASIC INFORMATION ON THE COMPANY

### Company overview

Shanghai Fudan Microelectronics Group Company Limited (the “Company”) was established by way of promotion upon approval of the Shanghai Municipal People’s Government on 4 June 1998 (Hu Fu Ti Gai Shen [1998] No. 050). The promoters include Shanghai Commercial and Invest (Group) Corporation, Shanghai Fuxin Van Gogh Integrated Circuit Technology Co., Ltd., Shanghai Pacific Commercial Trust Co., Ltd., Shanghai Gaozhan Business Consultancy Co., Ltd., Ningbo Lirong Co., Ltd., the Staff Shareholding Association of Shanghai Fudan Microelectronics Group Company Limited, and natural persons Jiang Guoxing and Shi Lei. The Company was registered with the Shanghai Administration for Industry and Commerce on 10 July 1998, and obtained the business license with the number of 3100001005424 with registered capital RMB10,000,000.00.

On 4 August 2000, the Company was listed on the GEM of The Stock Exchange of Hong Kong Limited (the “Stock Exchange”). H Shares issued by the Company commenced trading on the Main Board of the Stock Exchange since 8 January 2014. A Shares were listed on the Shanghai Stock Exchange (the “SSE”) since 4 August 2021.

The Company and its subsidiaries (the “Group”) operates in the integrated circuit (“IC”) industry. Its main business activities are the design, development and sales of IC products; and conduct testing services for IC products.

The financial statements have been approved by a resolution of the board of directors of the Company on 15 August 2022.

The scope of consolidation in the consolidated financial statements is determined on the basis of control.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (2) BASIS OF PREPARATION OF FINANCIAL STATEMENTS

### Basis of preparation

The financial statements have been prepared in accordance with the “Accounting Standards for Business Enterprises – Basic Standards” promulgated by the Ministry of Finance and the specific accounting standards, application guidelines, interpretations and other relevant regulations subsequently announced and revised (collectively “Accounting Standards for Business Enterprises” or “ASBEs”).

The financial statements are presented on a going concern basis.

Except for certain financial instruments, the financial statements have been prepared under the pricing principle of historical cost. If the assets are impaired, corresponding provisions for impairment shall be made according to relevant regulations.

### Going concern

There is no event or circumstance of the Company which casts material doubts to the going concern abilities for the 12 months from the end of the Reporting Period.

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

The Group has formulated specific accounting policies and accounting estimates according to the characteristics of its actual production and operation, which is mainly embodied in the impairment of financial instruments, depreciation of fixed assets, amortization of intangible assets, eligibility of the development costs for capitalisation and recognition and measurement of revenue.

### 1. Statement of compliance with the Accounting Standards for Business Enterprises

The financial statements prepared by the Company are in accordance with the requirements of the ASBEs, and gives a true and complete view on information including the financial position, the operating results, changes in owners’ equity and cash flows of the Company. The unaudited interim financial statements should be read in conjunction with the annual financial statements for the year ended 31 December 2021, which have been prepared in accordance with the ASBEs.

### 2. Accounting period

An accounting year runs with the Gregorian calendar which lasts from 1 January to 31 December.

### 3. Functional currency

The functional currency of the Company is Renminbi.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 4. Accounting treatment for business combinations

The scope of the consolidated financial statements, which include the financial statements of the Company and all of its subsidiaries, is determined on the basis of control. A subsidiary is an entity that is controlled by the Company.

The significant accounting policies and accounting periods adopted by the subsidiaries are determined based on the uniform accounting policies and accounting periods set out by the Company. The effects of all intra-group transactions between the Company and its subsidiaries and among subsidiaries on the consolidated financial statements are eliminated on consolidation.

When the amount of loss for the period attributable to the minority shareholders of a subsidiary exceeds the minority shareholders' portion of the opening balance of owners' equity of the subsidiary, the excess amount is still allocated against minority shareholders' interests.

For subsidiaries acquired through business combinations not involving entities under common control, the operating results and cash flows from the acquisition date (the date when control is obtained) are included in the consolidated income statement and consolidated cash flow statement, and continue to be consolidated until the date such control ceases. While preparing the consolidated financial statements, the Group shall adjust the subsidiary's financial statements, on the basis of the fair values of the identifiable assets, liabilities and contingent liabilities recognized on the acquisition date.

For subsidiaries acquired through a business combination involving entities under common control are included in the Group's scope of consolidation as if they had been included in the scope of consolidation from the date when they first came under the common control of the ultimate controlling party, and their operating results and cash flows from the beginning of the earliest Reporting Period are included in the consolidated income statement and consolidated cash flow statement, as appropriate.

The Group reassesses whether or not it controls an investee if any change in facts and circumstances indicates that there are changes to one or more of the elements of control.

### 5. Cash and cash equivalents

Cash equivalents refer to those held by the Company for short-term (generally means due within three months from the date of purchase), highly liquid investments held by the Group, that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 6. Foreign currency transactions and foreign currency translation

The Group translates foreign currency transactions into its functional currency.

Foreign currency transactions are initially recorded, on initial recognition in the functional currency using the spot exchange rates prevailing at the dates of transactions. Monetary items denominated in foreign currencies are translated at the spot exchange rates ruling at the balance sheet date. Differences arising on settlement or translation of monetary items are recognised in profit or loss, with the exception of those relating to foreign currency borrowings specifically for the construction and acquisition of qualifying assets, which are capitalised in accordance with the guidance for capitalisation of borrowing costs. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions, and the amount denominated in the functional currency is not changed. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured. The resulting exchange differences are recognised in profit or loss or other comprehensive income depending on the nature of the non-monetary items.

For foreign operations, the Group translates their functional currency amounts into RMB when preparing the financial statements as follows: as at the balance sheet date, the assets and liabilities are translated using the spot exchange rate at the balance sheet date, and equity items other than “undistributed profit” are translated at the spot exchange rates at the dates of transactions; revenue and expense items in profit or loss are translated using the average exchange rates for the period during which the transactions occur. The resulting exchange differences are recognised in other comprehensive income. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in profit or loss. If the disposal only involves a portion of a particular foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in profit or loss on a pro-rata basis.

Foreign currency cash flows and the cash flows of foreign subsidiaries are translated using the spot exchange rates for the period during which the cash flows occur. The effect of exchange rate changes on cash is separately presented as an adjustment item in the statement of cash flows.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 7. Financial instruments

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

#### *Recognition and derecognition of financial instruments*

The Group recognises a financial asset or a financial liability when it becomes a party to the contractual provisions of a financial instrument.

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognised (i.e., removed from the Group's consolidated balance sheet) when:

- (1) the rights to receive cash flows from the financial asset have expired; or
- (2) the Group has transferred its rights to receive cash flows from the financial asset, or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a "pass-through" arrangement; and either (a) has transferred substantially all the risks and rewards of the financial asset, or (b) has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the financial asset.

A financial liability is derecognised when the obligation under the liability is discharged or cancelled, or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and a recognition of a new liability, and the difference between the respective carrying amounts is recognised in profit or loss.

Regular way purchases and sales of financial assets are recognised and derecognised using trade date accounting. Regular way purchases or sales are purchases or sales of financial assets that require delivery within the period generally established by regulation or convention in the marketplace. The trade date is the date that the Group committed to purchase or sell a financial asset.

#### *Classification and measurement of financial assets*

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Group's business model for managing them: financial assets at fair value through profit or loss, financial assets at amortised cost and financial assets at fair value through other comprehensive income. All affected related financial assets will be reclassified only if the Group changes its business model for managing financial assets.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 7. Financial instruments *(Continued)*

#### *Classification and measurement of financial assets (Continued)*

Financial assets are measured at fair value on initial recognition, but accounts receivable or notes receivable arising from the sale of goods or rendering of services that do not contain significant financing components or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component due within one year, are initially measured at the transaction price.

For financial assets at fair value through profit or loss, relevant transaction costs are directly recognised in profit or loss, and transaction costs relating to other financial assets are included in the initial recognition amounts.

The subsequent measurement of financial assets depends on their classification as follows:

#### *Debt investments measured at amortised cost*

The Group measures financial assets at amortised cost if both of the following conditions are met: the financial asset is held within a business model with the objective to hold financial assets in order to collect contractual cash flows; the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired.

#### *Equity investments at fair value through other comprehensive income*

The Group can elect to classify irrevocably its equity investments which are not held for trading as equity investments designated at fair value through other comprehensive income. Only the relevant dividend income (excluding the dividend income explicitly recovered as part of the investment cost) is recognised in profit or loss. Subsequent changes in the fair value are included in other comprehensive income, and no provision for impairment is made. When the financial asset is derecognised, the accumulated gains or losses previously included in other comprehensive income are transferred from other comprehensive income to retained earnings.

#### *Financial assets at fair value through profit or loss*

The financial assets other than the above financial assets measured at amortised cost and financial assets at fair value through other comprehensive income are classified as financial assets at fair value through profit or loss. Such financial assets are subsequently measured at fair value with net changes in fair value recognised in profit or loss.

After an enterprise designates a financial asset as a financial assets at fair value through profit or loss at initial recognition, it cannot be reclassified as other types of financial assets; other types of financial assets cannot be redesignated as financial assets at fair value through profit or loss after initial recognition.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 7. Financial instruments *(Continued)*

#### *Classification and measurement of financial liabilities*

The Group's financial liabilities are, on initial recognition, classified into financial liabilities at fair value through profit or loss or other financial liabilities. For financial liabilities at fair value through profit or loss, relevant transaction costs are directly recognised in profit or loss, and transaction costs relating to other financial liabilities are included in the initial recognition amounts.

The subsequent measurement of financial liabilities depends on their classification:

#### *Other financial liabilities*

After initial recognition, such financial liabilities are measured at amortised cost using the effective interest method.

#### *Impairment of financial instruments*

Based on the expected credit losses ("ECLs"), the Group recognises an allowance for ECLs for the financial assets measured at amortised cost.

For trade receivables and contract assets that do not contain a significant financing component, the Group applies the simplified approach to recognise a loss allowance based on lifetime ECLs.

Except for financial assets which apply the simplified approach as mentioned above, the Group assesses whether the credit risk has increased significantly since initial recognition at each balance sheet date. If the credit risk has not increased significantly since initial recognition (stage 1), the loss allowance is measured at an amount equal to 12-month ECLs by the Group and the interest income is calculated according to the carrying amount and the effective interest rate; if the credit risk has increased significantly since initial recognition but are not credit-impaired (stage 2), the loss allowance is measured at an amount equal to lifetime ECLs by the Group and the interest income is calculated according to the carrying amount and the effective interest rate; if such financial assets are credit-impaired after initial recognition (stage 3), the loss allowance is measured at an amount equal to lifetime ECLs by the Group and the interest income is calculated according to the amortised cost and the effective interest rate. If the credit risk of financial instruments is low at the balance sheet date, the Group assumes that the credit risk has not increased significantly since initial recognition.

The Group assesses the expected credit losses of financial instruments on an individual and collective basis. Considering the credit risk characteristics of different customers, the Group divides the accounts receivable into a combination of sales of high-reliability products, a combination of sales of industrial products, and a combination of test services, combined with aging analysis to evaluate the expected credit losses of financial instruments.

For the disclosure of the Group's criteria on the significant increase in credit risk, the definition of credit impaired assets, and the assumption of measurement on expected credit loss, please refer to Note (59).

When the Group no longer reasonably expects to collect all or part of the contractual cash flows of the financial asset, the Group directly writes down the carrying amount of the financial asset.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 7. Financial instruments *(Continued)*

#### *Offsetting of financial instruments*

Where the Group has a legal right that is currently enforceable to set off the recognised financial assets and financial liabilities, and intends either to settle on a net basis, or to realise the financial asset and settle the financial liability simultaneously, a financial asset and a financial liability shall be offset and the net amount is presented in the balance sheet.

#### *Transfer of financial assets*

A financial asset is derecognised when the Group has transferred substantially all the risks and rewards of the asset to the transferee. A financial asset is not derecognised when the Group retains substantially all the risks and rewards of the financial asset.

When the Group has neither transferred nor retained substantially all the risks and rewards of the financial asset, it either (i) derecognises the financial asset and recognises the assets and liabilities created in the transfer when it has not retained control of the asset; or (ii) continues to recognise the transferred asset to the extent of the Group's continuing involvement, in which case the Group also recognises an associated liability.

Continuing involvement that takes the form of a guarantee over the transferred financial asset is measured at the lower of the original carrying amount of the financial asset and the guarantee amount.

### 8. Notes receivable

Based on expected credit losses, the Group depreciates financial assets measured at amortized cost and recognizes loss provisions.

For receivables that do not contain significant financing components, the Group uses a simplified measurement method to measure the loss provision based on the expected credit loss amount equivalent to the entire duration.

Except for the above-mentioned financial assets that adopt the simplified measurement method, the Group assesses whether the credit risk has increased significantly since the initial recognition on each balance sheet date. If the credit risk has not increased significantly since the initial recognition, which is in the first stage, the Group measures the loss provision based on the amount equivalent to the expected credit loss in the next 12 months, and calculates the interest income based on the book balance and the effective interest rate. If the credit risk has increased significantly since the initial recognition but no credit impairment has occurred, which is in the second stage, the Group measures the loss provision based on the amount equivalent to the expected credit loss during the entire duration, and calculates the interest income based on the book balance and the effective interest rate. If credit impairment occurs after initial recognition, which is in the third stage, the Group measures the loss provision based on the amount equivalent to the expected credit loss during the entire duration, and calculates the interest income based on the amortized cost and the effective interest rate. For financial instruments with relatively low credit risk on the balance sheet date, the Group assumes that its credit risk has not increased significantly since initial recognition.

When the Group no longer reasonably expects to recover all or part of the contractual cash flow of the financial asset, the Group directly writes down the book balance of the financial asset.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 9. Accounts receivable

Based on expected credit losses, the Group depreciates financial assets measured at amortized cost and recognizes loss provisions.

For receivables that do not contain significant financing components, the Group uses a simplified measurement method to measure the loss provision based on the expected credit loss amount equivalent to the entire duration.

Except for the above-mentioned financial assets that adopt the simplified measurement method, the Group assesses whether the credit risk has increased significantly since the initial recognition on each balance sheet date. If the credit risk has not increased significantly since the initial recognition, which is in the first stage, the Group measures the loss provision based on the amount equivalent to the expected credit loss in the next 12 months, and calculates the interest income based on the book balance and the effective interest rate. If the credit risk has increased significantly since the initial recognition but no credit impairment has occurred, which is in the second stage, the Group measures the loss provision based on the amount equivalent to the expected credit loss during the entire duration, and calculates the interest income based on the book balance and the effective interest rate. If credit impairment occurs after initial recognition, which is in the third stage, the Group measures the loss provision based on the amount equivalent to the expected credit loss during the entire duration, and calculates the interest income based on the amortized cost and the effective interest rate. For financial instruments with relatively low credit risk on the balance sheet date, the Group assumes that its credit risk has not increased significantly since initial recognition.

The Group assesses the expected credit losses of financial instruments on an individual and collective basis. Considering the credit risk characteristics of different customers, the Group divides the accounts receivable into a combination of sales of high-reliability products, a combination of sales of industrial products, a combination of test services, and an aging analysis to evaluate the expected credit losses of financial instruments.

Please refer to Note (59), Risks Related to Financial Instruments, for the Group's disclosure of the criteria for judging significant increase in credit risk, the definition of credit-impaired assets, and assumptions for the measurement of expected credit losses.

When the Group no longer reasonably expects to recover all or part of the contractual cash flow of the financial asset, the Group directly writes down the book balance of the financial asset.

### 10. Inventories

Inventories comprise raw materials, work in progress, and finished goods.

Inventories are initially carried at cost. Cost of inventories comprises all costs of purchase, costs of conversion and other costs. The actual cost of inventories transferred out is determined by using the weighted average method. Turnover materials include low value consumables and packing materials, which are on the immediate write-off basis.

The Group adopts a perpetual inventory system.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 10. Inventories *(Continued)*

At the balance sheet date, inventories are stated at the lower of cost and net realisable value. The inventories are written down below cost to net realisable value and the write-down is recognised in profit or loss if the cost is higher than the net realisable value. When the circumstances that previously caused the inventories to be written down below cost no longer exist, in which case the net realisable value of inventories becomes higher than the carrying amount, the amount of the write-down is reversed. The reversal is limited to the amount of the original write-down, and is recognised in profit or loss.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale and relevant taxes. The provision is made by item for raw materials and finished goods.

### 11. Long-term equity investments

Long-term equity investments include equity investments in subsidiaries and associates.

A long-term equity investment is initially measured at its initial investment cost on acquisition. For a business combination involving entities under common control, the initial investment cost of the long-term equity investment is the carrying amount of the absorbing party's share of the owner's equity of the party being absorbed on the consolidated financial statements of the ultimate controller. The difference between the initial investment cost and the carrying amount of the consideration paid for the combination shall be adjusted against capital reserve (where the capital reserve is not sufficient to absorb the difference, any excess shall be adjusted against retained earnings). Other comprehensive income prior to the date of the business combination is accounted for on the same basis as that used to account for direct disposal of such assets or liabilities by the investee, and shareholders' equity recognised as a result of changes in other shareholders' equity of the investee other than net profit or loss, other comprehensive income and profit distribution is transferred to profit or loss for the current period upon such disposal, of which the investment which remains long-term equity investment upon the disposal is transferred in proportion, and the investment which is converted into financial instruments upon the disposal is transferred in full. The initial investment cost of the long-term equity investment is the cost of acquisition for a business combination not under common control (for a business combination not under common control achieved in stages, the initial investment cost is measured at the carrying amount of the equity investments in the acquiree before the acquisition date plus the additional investment cost incurred on the acquisition date). The cost of combination includes the assets transferred and the liabilities incurred or assumed by the acquirer, and the fair value of equity securities issued. Other comprehensive income held prior to the date of the acquisition and recognised using the equity method is accounted for on the same basis as that used to account for direct disposal of such assets or liabilities by the investee, and shareholders' equity recognised as a result of changes in other shareholders' equity of the investee other than net profit or loss, other comprehensive income and profit distribution is transferred to profit or loss for the current period upon such disposal, of which the investment which remains long-term equity investment upon the disposal is transferred in proportion, and the investment which is converted into other equity instruments investments upon the disposal is transferred in full. For a long-term equity investment acquired other than through a business combination, the initial investment cost is determined as follows: if acquired by paying cash, the initial investment cost is the actual purchase price paid and those costs, taxes and other necessary expenditures directly attributable to the acquisition of the long-term equity investment; if acquired by the issue of equity securities, the initial investment cost is the fair value of the securities issued.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 11. Long-term equity investments *(Continued)*

For a long-term equity investment where the Group can exercise control over the investee, the long-term investment is accounted for using the cost method in the Company's individual financial statements. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

Under the cost method, the long-term equity investment is measured at its initial investment cost. When additional investment is made or the investment is recouped, the cost of long-term equity investment is adjusted accordingly. Cash dividends or profit distributions declared by the investee are recognised as investment income in profit or loss.

The equity method is adopted when the Group has joint control, or exercises significant influence over the investee. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control with other parties over those policies.

Under the equity method, where the initial investment cost of a long-term equity investment exceeds the Group's interest in the fair value of the investee's identifiable net assets at the acquisition date, no adjustment is made to the initial investment cost. Where the initial investment cost is less than the Group's interest in the fair values of the investee's identifiable net assets at the acquisition date, the difference is charged to profit or loss, and the cost of the long-term equity investment is adjusted accordingly.

When equity method is adopted in accounting, the investment income and other comprehensive income shall be recognised respectively according to the share of net profit or loss and other comprehensive income realised by the investee, and the carrying amount of long-term equity investment shall be adjusted at the same time. When recognising the share of the net profit or loss of the investee, the net profit of the investee shall be adjusted and recognised on the basis of the fair value of the identifiable assets of the investee at the time of acquisition. If the accounting policies and accounting periods adopted by the investee are inconsistent with those of the Group, the financial statements of the investee shall be adjusted in accordance with the accounting policies and accounting period of the Group. The investment income and other comprehensive income shall be recognised accordingly. For transactions between the Group and associates or joint ventures, if the assets invested or sold do not constitute business, the gains and losses of internal transactions are offset by the shareholding attributable to the Group. On this basis, the investment gains or losses are recognised. However, the unrealised internal transaction losses between the Group and the investee shall not be offset if they belong to the impairment losses of the transferred assets. The carrying amount of long-term equity investment shall be reduced accordingly by calculating the portion to be enjoyed according to the profit or cash dividend declared to be distributed by the investee. The Group discontinues recognising its share of net losses of the investee after the carrying amount of the long-term equity investment together with any long-term interests that in substance form part of its net investment in the invested entity is reduced to zero unless the Group has incurred obligations to assume additional losses of the investee. The carrying amount of long-term equity investment shall be adjusted and included in capital reserve for other changes in the owners' equity of the investee except net profit or loss, other comprehensive income and profit distribution.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

(Continued)

### 11. Long-term equity investments (Continued)

Upon disposal of a long-term equity investment, the difference between the proceeds actually received and the carrying amount is recognised in profit or loss. For a long-term equity investment accounted for using the equity method, when the Group discontinues it using the equity method due to disposal, all amounts previously recognised in other comprehensive income are accounted for on the same basis as would have been required if the investee had directly disposed of the related assets or liabilities. Equity previously recognised resulting from the investee's equity changes other than profit or loss, other comprehensive income and profit distribution is reclassified to profit or loss in its entirety. When the Group continues to use the equity method, the amounts previously recognised in other comprehensive income are accounted for on the same basis as would have been required if the investee had directly disposed of the related assets or liabilities and reclassified to profit or loss on a pro-rata basis. Equity previously recognised resulting from the investee's equity changes other than profit or loss, other comprehensive income and profit distribution is reclassified to profit or loss on a pro-rata basis.

### 12. Fixed assets

A fixed asset is recognised only when the economic benefits associated with the asset will probably flow into the Group and the cost of the asset can be measured reliably. Subsequent expenditures incurred for a fixed asset are included in the cost of the fixed asset if it is probable that the associated economic benefits will flow to the Group and its costs can be reliably measured, and the carrying amount of the component of the fixed asset that is replaced shall be derecognised. Otherwise, such expenditures shall be recognised in the profit or loss for the period in which they are incurred.

Fixed assets are initially measured at cost. The cost of a purchased fixed asset comprises the purchase price, relevant taxes and any directly attributable expenditure for bringing the asset to working condition for its intended use.

Depreciation is calculated using the straight-line method. The useful lives, estimated residual value rates and annual depreciation rates of each category of the fixed assets are as follows:

	Useful life	Estimated residual value rate	Annual depreciation rate
Buildings and Structures	50 years	5%	1.90%
Machinery and Equipment	3-5 years	0%-5%	19.00%-33.33%
Motor Vehicles	3-5 years	4%-5%	19.00%-32.00%
Electronic and other equipment	3-5 years	0%-5%	19.00%-33.33%

The Group reviews the useful life and estimated net residual value of a fixed asset and the depreciation method applied at least at each year end, and make adjustments if necessary.

### 13. Construction in progress

The cost of construction in progress is measured at actual cost, including all necessary construction expenditures incurred during the construction period and other relevant expenditures.

An item of construction in progress is transferred to fixed assets when the asset is ready for its intended use.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 14. Right-of-use assets

The right-of-use assets of the Group mainly include buildings and motor vehicles.

At the commencement date of the lease, the Group recognises a right-of-use asset. The cost of the right-of-use asset comprises: the amount of the initial measurement of the lease liability; any lease payments made at or before the commencement date of the lease less any lease incentives received; any initial direct cost incurred; and an estimate of costs incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease. The right-of-use assets are depreciated on a straight-line basis subsequently by the Group. If the Group is reasonably certain that the ownership of the underlying asset will be transferred to the Group at the end of the lease term, the Group depreciates the asset from the commencement date to the end of the useful life of the asset. Otherwise, the Group depreciates the assets from the commencement date to the earlier of the end of the useful life of the asset or the end of the lease term.

The Group remeasures the lease liability at the present value of the changed lease payments and adjusts the carrying amount of the right-of-use assets accordingly, when the carrying amount of the right-of-use asset is reduced to zero, and there is a further reduction in the measurement of the lease liability, the Group recognises the remaining amount of the remeasurement in profit or loss.

### 15. Intangible assets

An intangible asset shall be recognised only when it is probable that the economic benefits associated with the asset will flow to the Group and the cost of the asset can be measured reliably. Intangible assets are measured initially at cost. However, intangible assets acquired in a business combination not involving entities under common control with a fair value that can be measured reliably are recognised separately as intangible assets and initially measured at the fair value at the date of acquisition.

The useful life of an intangible asset is determined according to the period over which it is expected to generate economic benefits for the Group. An intangible asset is regarded as having an indefinite useful life when there is no foreseeable limit to the period over which the asset is expected to generate economic benefits for the Group.

The useful lives of the intangible assets are as follows:

	Useful life
Software	The shorter of the expected useful life and the authorized life
Patents	3 years

An intangible asset with a finite useful life is amortised using the straight-line method over its useful life. For an intangible asset with a finite useful life, the Group reviews the useful life and amortisation method at least at each year end and makes adjustment if necessary.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 15. Intangible assets *(Continued)*

The Group classifies the expenditures on an internal research and development project into expenditure on the research phase and expenditure on the development phase. Expenditure on the research phase is recognised in profit or loss as incurred. Expenditure on the development phase is capitalised only when the Group can demonstrate all of the following: the technical feasibility of completing the intangible asset so that it will be available for use or sale; the intention to complete the intangible asset and use or sell it; how the intangible asset will generate probable future economic benefits (among other things, the Group can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the usefulness of the intangible asset); the availability of adequate technical, financial and other resources to complete the development and the ability to use or sell the intangible asset; and the ability to measure reliably the expenditure attributable to the intangible asset during the development phase. Expenditure on the development phase which does not meet these above criteria is recognised in profit or loss when incurred.

The Group's specific criteria for classifying expenditures in the research phase and development phase of internal research and development projects is: the research phase is the phase of original planned investigations and research activities to acquire and understand scientific or new technical knowledge; the development phase is the phase of applying research results or other knowledge to a plan or design in order to produce a new or substantially improved product prior to commercial production or use. According to whether the R&D projects meet the capitalization conditions, the Group's R&D projects can be classified into capitalized R&D projects and expensed R&D projects. The Group's capitalized R&D projects are based on the project approval review as the node to divide the research stage and development stage. The research stage is before the project approval review, and the relevant R&D investment is included in the current profit and loss; after the project approval review and the satisfaction of the capitalization criteria of the R&D expenditure, the project enters the development stage, and the relevant R&D investment can be included in the development expenditure.

### 16. Impairment of assets

The Group determines the impairment of assets, other than the impairment of inventories, deferred tax assets and financial assets, using the following methods:

The Group assesses at the balance sheet date whether there is any indication that an asset may be impaired. If any indication exists that an asset may be impaired, the Group estimates the recoverable amount of the asset and performs impairment testing. Goodwill arising from a business combination and an intangible asset with an indefinite useful life are tested for impairment at least at each year end, irrespective of whether there is any indication that the asset may be impaired. Intangible assets that have not been ready for their intended use are tested for impairment each year.

The recoverable amount of an asset is the higher of its fair value less costs to sell and the present value of the future cash flows expected to be derived from the asset. The Group estimates the recoverable amount on an individual basis unless it is not possible to estimate the recoverable amount of the individual asset, in which case the recoverable amount is determined for the asset group to which the asset belongs. Identification of an asset group is based on whether major cash inflows generated by the asset group are largely independent of the cash inflows from other assets or asset groups.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

(Continued)

### 16. Impairment of assets (Continued)

When the recoverable amount of an asset or asset group is less than its carrying amount, the carrying amount is reduced to the recoverable amount by the Group. The reduction in the carrying amount is treated as an impairment loss and recognised in profit or loss. A provision for impairment loss of the asset is recognised accordingly.

Once the above impairment loss is recognised, it cannot be reversed in subsequent accounting periods.

### 17. Long-term prepaid expenses

Long-term prepaid expenses are amortised using the straight-line method as follows:

	Amortisation period
Office lease and plant decoration	the shorter of the lease term and the remaining useful life of the lease assets

### 18. Contract liabilities

The Group presents contract liabilities in the balance sheet based on the relationship between the performance of the performance obligations and the payments from customers.

A contractual liability is an obligation to transfer a good or service to a customer for consideration received or receivable from the customer, such as money that a business has received before transferring the promised good or service.

### 19. Employee benefits

During the accounting period in which the employee provides services, the actual short-term remuneration is recognized as a liability and included in the current profit and loss or related asset costs.

#### *Post-employment benefits*

The employees of the Group in mainland China are required to participate in the pension insurance and unemployment insurance scheme administered by the local government. The Group's subsidiary in Hong Kong operates a defined contribution Mandatory Provident Fund retirement benefit scheme (the "MPF Scheme") under the Mandatory Provident Fund Schemes Ordinance for those employees who are eligible to participate in the MPF Scheme. Contributions are made based on a percentage of the employees' basic salaries. The subsidiary's employer contributions vest fully with the employees when contributed into the MPF Scheme. The Group has no forfeited contributions available.

#### *Termination benefits*

The Group provides termination benefits to employees and recognises an employee benefits liability for termination benefits, with a corresponding charge to profit or loss, at the earlier of when the Group can no longer withdraw the offer of those benefits resulting from an employment termination plan or a curtailment proposal and when the Group recognises costs involving the payment of termination benefits.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 20. Lease liabilities

At the commencement date of the lease, the Group measures the lease liability at the present value of the lease payments that are not paid at that date, except for short-term leases and leases of low-value assets. In calculating the present value of the lease payments, the Group uses the interest rate implicit in the lease as the discount rate. If that rate cannot be readily determined, the Group uses the lessee's incremental borrowing rate. The Group calculates the interest expenses of the lease liability in each period during the lease term using the constant periodic rate of interest, and recognises such interest expenses in profit or loss, except those in the costs of the related asset as required. Variable lease payments that are not included in the measurement of the lease liabilities are recognised in profit or loss as incurred, except those in the costs of the related asset as required.

After the commencement date of the lease, the Group remeasures the lease liability at the present value of the changed lease payments if there is a modification, a change in the substantive fixed payments, a change in the amount expected to be payable for the guaranteed residual value, a change in the index or rate used to determine the lease payments, or a change in the evaluation result or actual exercise of the purchase option, extension option or termination option.

### 21. Share-based payments

A share-based payment is classified as either an equity-settled share-based payment or a cash-settled share-based payment. An equity-settled share-based payment is a transaction in which the Group receives services and uses shares or other equity instruments as consideration for settlement.

An equity-settled share-based payment in exchange for services received from employees is measured at the fair value of the equity instruments granted to the employees. If such equity-settled share-based payment could vest immediately, related costs or expenses at an amount equal to the fair value on the grant date are recognised, with a corresponding increase in capital reserves; if such equity-settled share-based payment could not vest until the completion of services for a vesting period, or until the achievement of a specified performance condition, the Group at each balance sheet date during the vesting period recognises the services received for the current period as related costs and expenses, with a corresponding increase in capital reserves, at an amount equal to the fair value of the equity instruments at the grant date, based on the best estimate of the number of equity instruments expected to vest. The fair value of equity instruments has been determined by the Black-Scholes option pricing model, see Note (62).

For awards that do not ultimately vest because non-market performance and service conditions have not been met, no expense is recognised. Where awards include a market or non-vesting condition, the transactions are treated as vesting irrespective of whether the market or non-vesting condition is satisfied, provided that all other performance and service conditions are satisfied.

Where the terms of an equity-settled share-based award are modified, as a minimum an expense is recognised as if the terms had not been modified. In addition, an expense is recognised for any modification that increases the total fair value of the share-based payments, or is otherwise beneficial to the employee as measured at the date of modification.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 21. Share-based payments *(Continued)*

Where an equity-settled share-based award is cancelled, it is treated as if it had vested on the date of cancellation, and any expense not yet recognised for the award is recognised immediately. This includes any award where non-vesting conditions within the control of either the Group or the employee are not met. However, if a new award is substituted for the cancelled award, and is designated as a replacement on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award.

### 22. Revenue

Revenue from contracts with customers is recognised when the Group has fulfilled its performance obligations in the contracts, that is, when the customer obtains control of relevant goods or services. Control of relevant goods or services refers to the ability to direct the use of the goods, or the provision of the services, and obtain substantially all of the remaining benefits from the goods or services.

#### *Contracts for sale of goods*

A contract for the sale of goods between the Group and the customer usually only includes the performance obligation to transfer the integrated circuit products. The revenue is recognised at the point in time when the customer obtains control of relevant goods based on the following indicators, which include: a present right to payment for goods, the transfer of significant risks and rewards of ownership of goods, the transfer of legal title to goods, the transfer of physical possession of goods, the customer's acceptance of goods.

#### *Contracts for the rendering of services*

A contract for the rendering of services between the Group and the customer usually includes performance obligation to provide integrated circuit testing, and the Group recognises revenue at the point of delivery of the test service results.

### 23. Government grants

Government grants are recognised when all attaching conditions can be complied with and the grant can be received. If a government grant is in the form of a transfer of a monetary asset, it is measured at the amount received or receivable. If a government grant is in the form of a transfer of a nonmonetary asset, it is measured at fair value; if fair value cannot be reliably determined, it is measured at a nominal amount.

Government grants shall be recognised as government grants related to assets where long-term assets are built or otherwise developed in accordance with the requirements of government documents. If there are no specific requirements of government documents, judgment shall be exercised based on the basic conditions required for the grants. Government grants shall be recognised as government grants related to assets where the building or otherwise development of long-term assets is considered as the basic condition; otherwise, they shall be recognised as government grants related to income.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 23. Government grants *(Continued)*

A government grant related to income is accounted for as follows: (i) if the grant is a compensation for related expenses or losses to be incurred in subsequent periods, the grant is recognised as deferred income, and released in profit or loss or offset against related expenses over the periods in which the related costs are recognised; or (ii) if the grant is a compensation for related expenses or losses already incurred, it is recognised immediately in profit or loss or offset against relevant expenses.

A government grant relating to an asset shall be offset against the carrying amounts of relevant assets, or recognised as deferred income and amortised in profit or loss over the useful life of the related asset by annual instalments in a systematic and rational way (however, a government grant measured at a nominal amount is recognised directly in profit or loss). Where the assets are sold, transferred, retired or damaged before the end of their useful lives, the rest of the remaining deferred income is released to profit or loss for the period in which the relevant assets are disposed of.

### 24. Deferred tax assets/Deferred tax liabilities

Deferred tax is provided using the balance sheet liability method, on all temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts, and temporary differences between the tax bases and the carrying amounts of the items, which have a tax base according to related tax laws but are not recognised as assets and liabilities.

Deferred tax liabilities are recognised for all taxable temporary differences, except:

- (1) when the taxable temporary difference arises from an asset or liability in a transaction that is not a business combination and, at the time of transaction, affects neither accounting profit nor taxable profit or loss; and
- (2) in respect of taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not be reversed in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, and the carryforward of unused tax losses and any unused tax credits. Deferred tax assets are recognised to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, the carryforward of unused tax losses and unused tax credits can be utilised, except:

- (1) when the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- (2) in respect of the deductible temporary differences associated with investments in subsidiaries, associates and joint ventures, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will be reversed in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised in the future.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 24. Deferred tax assets/Deferred tax liabilities *(Continued)*

At the balance sheet date, deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realised or the liability is settled, in accordance with the requirements of tax laws. The measurement of deferred tax assets and deferred tax liabilities reflects the tax consequences that would follow from the manner in which the Group expects, at the balance sheet date, to recover the assets or settle the liabilities.

The carrying amount of deferred tax assets is reviewed at the balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available in future periods to allow the deferred tax assets to be utilised. Unrecognised deferred tax assets are reassessed at the balance sheet date and are recognised to the extent that it has become probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be recovered.

Deferred tax assets and deferred tax liabilities are offset if and only if the Group has a legally enforceable right to set off current tax assets and current tax liabilities, and the deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities which intend either to settle current tax liabilities and assets on a net basis, or to realise the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

### 25. Leases

#### *Identification of leases*

At inception of a contract, the Group assesses whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset for a period of time, the Group assesses whether, throughout the period of use, the customer has both of the right to obtain substantially all of the economic benefits from use of the identified asset and the right to direct the use of the identified asset.

#### *Assessment of the lease term*

The lease term is the non-cancellable period of a lease for which the Group has the right to use an underlying asset. If the Group has an option to extend the lease, that is, the Group has the right to extend the lease, and is reasonably certain to exercise that option, the lease term also includes periods covered by an option to extend the lease. If the Group has an option to terminate the lease, that is, the Group has the right to terminate the lease, but is reasonably certain not to exercise that option, the lease term includes periods covered by an option to terminate the lease. The Group reassesses whether it is reasonably certain to exercise an extension option, purchase option, or not to exercise a termination option, upon the occurrence of either a significant event or a significant change in the circumstances that is within the control of the Group and affects whether the Group is reasonably certain to exercise an option not previously included in its determination of the lease term.

#### *As lessee*

The general accounting treatment of the Group as a lessee is described in Note (3), 14 and Note (3), 20.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 25. Leases *(Continued)*

#### *Lease modifications*

Lease modification is a change in the scope of a lease, or the consideration for a lease, that was not part of the original terms and conditions of the lease, for example, adding or terminating the right to use one or more underlying assets, or extending or shortening the contractual lease term.

The Group accounts for a lease modification as a separate lease if both:

- (1) the modification increases the scope of the lease by adding the right to use one or more underlying assets; and
- (2) the consideration for the lease increases by an amount commensurate with the stand-alone price for the increase in scope and any appropriate adjustments to that stand-alone price to reflect the circumstances of the particular contract.

For a lease modification that is not accounted for as a separate lease, at the effective date of the lease modification the Group remeasures the lease liability by discounting the revised lease payments using a revised discount rate. The revised discount rate is determined as the interest rate implicit in the lease for the remainder of the lease term, or the lessee's incremental borrowing rate at the effective date of the modification, if the interest rate implicit in the lease cannot be readily determined.

For a lease modification that is not accounted for as a separate lease, the Group accounts for the remeasurement of the lease liability by:

- (1) decreasing the carrying amount of the right-of-use asset to reflect the partial or full termination of the lease for lease modifications that decrease the scope of the lease, and recognising the gain or loss relating to the partial or full termination of the lease in profit or loss; or
- (2) making a corresponding adjustment to the right-of-use asset for all other lease modifications.

#### *As lessor*

##### *Short-term leases and leases of low-value assets*

The Group considers a lease that, at the commencement date of the lease, has a lease term of 12 months or less, and does not contain any purchase option as a short-term lease; and a lease for which the value of the individual underlying asset is not more than RMB40,000 when it is new as a lease of low-value assets. If the Group subleases an asset, or expects to sublease an asset, the head lease does not qualify as a lease of a low-value asset. The Group does not recognise the right-of-use assets and lease liabilities for equipment short-term leases and low-value assets. The Group recognises lease payments on short-term leases and leases of low-value assets in the costs of the related asset or profit or loss on a straight-line basis.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 25. Leases *(Continued)*

#### *As lessor (Continued)*

A lease is classified as a finance lease if it transfers substantially all the risks and rewards incidental to ownership of an underlying asset, except that a lease is classified as an operating lease at the inception date.

#### *As lessor of an operating lease*

Rental income under an operating lease is recognised on a straight-line basis over the lease term, through profit or loss. Variable lease payments that are not included in the measurement of lease receivables are charged to profit or loss as incurred.

The Group accounts for a modification to an operating lease as a new lease from the effective date of the modification, considering any prepaid or accrued lease payments relating to the original lease as part of the lease payments for the new lease.

### 26. Significant accounting judgements and estimates

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenue, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities at the balance sheet date. Uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amounts of the assets or liabilities affected in the future.

#### *Judgements*

In the process of applying the Group's accounting policies, management has made the following judgements which have a significant effect on the amounts recognised in the financial statements:

#### *Operating leases – as lessor*

The Group has entered into lease agreements on its property portfolio. The Group has determined these leases to be operating leases, based on an evaluation of the terms and conditions of the agreements, that it retains all the significant risks and rewards of ownership of these properties.

#### *Business models*

The classification of financial assets at initial recognition depends on the Group's business model for managing financial assets. When determining the business model, the Group considers the methods to include evaluation and report financial asset performance to key management, the risks affecting the performance of financial assets and the risk management, and the manner in which the relevant management receives remuneration. When assessing whether the objective is to collect contractual cash flows, the Group needs to analyse and judge the reason, timing, frequency and value of the sale before the maturity date of the financial assets.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 26. Significant accounting judgements and estimates *(Continued)*

#### *Contractual cash flow characteristics*

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics, and the judgements on whether the contractual cash flows are solely payments of principal and interest on the principal amount outstanding, including when assessing the modification of the time value of money, the judgement on whether there is any significant difference from the benchmark cash flow and whether the fair value of the prepayment features is insignificant for financial assets with prepayment features, etc.

#### *Estimation uncertainty*

The key assumptions concerning the future and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the future accounting periods, are described below.

#### *Impairment of financial instruments*

The Group uses the expected credit loss model to assess the impairment of financial instruments. The Group is required to perform significant judgement and estimation and take into account all reasonable and supportable information, including forward-looking information. When making such judgements and estimates, the Group infers the expected changes in the debtor's credit risk based on historical repayment data combined with economic policies, macroeconomic indicators, industry risks and other factors. The different estimates may impact the impairment assessment, and the provision for impairment may also not be representative of the actual impairment loss in the future.

#### *Impairment of inventories*

The Group periodically assesses the net realizable value of its inventories and provides for inventory impairment based on the difference between the cost of the inventory category and the net realizable value. When estimating the net realizable value of inventories, management considers the purpose for which the inventories are held, as well as future use or sales as the basis for estimation. Where the expectation is different from the original estimate, such difference will impact on the carrying value of the inventories and write-down of inventories in the period in which such estimates have been changed.

#### *Impairment of non-current assets other than financial assets*

The Group assesses whether there are any indications of impairment for all non-current assets other than financial assets at the balance sheet date. Intangible assets with indefinite useful lives are tested for impairment annually and at other times when such an indication exists. Other non-current assets other than financial assets are tested for impairment when there are indications that the carrying amounts may not be recoverable. An impairment exists when the carrying amount of an asset or asset group exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and the present value of the future cash flows expected to be derived from it. The calculation of the fair value less costs of disposal is based on available data from binding sales transactions in an arm's length transaction of similar assets or observable market prices less incremental costs for disposing of the assets. When the calculations of the present value of the future cash flows expected to be derived from an asset or asset group are undertaken, management must estimate the expected future cash flows from the asset or asset group and choose a suitable discount rate in order to calculate the present value of those cash flows.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

*(Continued)*

### 26. Significant accounting judgements and estimates *(Continued)*

#### *Fair value of unlisted equity investments*

The unlisted equity investments have been valued based on the expected cash flows discounted at current rates applicable for items with similar terms and risk characteristics. This valuation requires the Group to make estimates about expected future cash flows, credit risk, volatility and discount rates, and hence they are subject to uncertainty.

#### *Development costs*

Development costs are capitalised in accordance with the accounting policy for research and development costs in Note (3), 15 to the financial statements. Determining the amounts to be capitalised requires management to make assumptions regarding the expected future cash flows from the assets, discount rates to be applied and the expected period of benefits.

#### *Deferred tax assets*

Deferred tax assets are recognised for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilised. Significant management judgement is required to determine the amount of deferred tax assets that can be recognised, based upon the likely timing and level of future taxable profits together with future tax planning strategies.

#### *Lessee's incremental borrowing rate*

If the interest rate implicit in the lease cannot be readily determined, the Group measures the lease liability at the present value of the lease payments discounted using the lessee's incremental borrowing rate. According to the economic environment, the Group takes the observable interest rate as the reference basis for determining the incremental borrowing rate, then adjusts the observable interest rate based on its own circumstances, underlying assets, lease terms and amounts of lease liabilities to determine the applicable incremental borrowing rate.

#### *Useful life of intangible assets*

The Group's management determines the useful lives of intangible assets based on an assessment of the expected useful lives or expected pattern of consumption of future economic benefits embodied in the assets. The determination of a reasonable useful life requires directors' estimates. Where the expectation is different from the original estimate, such difference will impact on the carrying value of the intangible assets and the amortisation expenses in the period in which such estimates have been changed.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

(Continued)

### 27. Tax

#### 1. Main types of taxes and corresponding tax rates

Tax type	Tax basis	Tax rate
Value-added tax (“VAT”)	The output tax is calculated on the income from the sale of goods and taxable services that calculated in accordance with the provisions of the tax law. The value added tax payable is the difference between the output tax and the input tax allowed to be deducted for the period	13%, 6%
City maintenance and construction tax	Turnover tax paid	7%
Enterprise income tax (“CIT”)	Taxable profit	29.84%, 25%, 16.5%, 15%, 10%
Property tax	Ad-valorem tax levied at 1.2% on the original property value after deducting 30% or 10%	1.2%

Information on income tax rates of taxpayers with various EIT rates:

Name of taxpayer	Income tax rate (%)
The Company	Except for the companies mentioned in Notes (3), 27, 2 which enjoy preferential income tax policies, other subsidiaries in PRC paid 25% of taxable income.
Shanghai Fudan Microelectronics (Hong Kong) Limited	The first HK\$2 million of assessable profits of Shanghai Fudan Microelectronics (Hong Kong) Limited is taxed at 8.25% and the remaining assessable profits are taxed at 16.5% since 2018.
Fudan Microelectronics (USA) Inc.	21% of the federation enterprise income tax rate of the U.S.A. and 8.84% of the local tax rate.

#### 2. Tax preferential benefits

- (a) According to the “Enterprise income tax Law of the People’s Republic of China” and the “Administrative Measures for the Recognition of High-tech Enterprises” that have been implemented since 1 January 2008, the high-tech enterprises supported by the state are subject to a reduced enterprise income tax rate of 15%. The Company and its subsidiary, Sino IC Technology Co., Ltd. obtained the High-tech Enterprise Certificate (Certificate No. GR202131002423) and (Certificate No. GRGR202131000027) respectively on 12 November 2020 with a valid period of three years. Thus, The Company and Sino IC Technology Co., Ltd. paid EIT at the tax rate of 15% in 2022.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (3) PRINCIPAL ACCOUNTING POLICIES AND ACCOUNTING ESTIMATES

(Continued)

### 27. Tax (Continued)

#### 2. Tax preferential benefits (Continued)

- (b) In accordance with the requirements under the Circular of the Ministry of Finance and the State Administration of Taxation on the Value-added Tax Policy of Software Products (Cai Shui [2011] No. 100), the Company is entitled to the policies of recovery upon payment of VAT for software products.

## (4) CASH AT BANK AND ON HAND

Item	RMB	
	30 June 2022	31 December 2021
Cash on hand	34,283.26	73,804.10
Deposits with banks	853,307,422.79	801,572,420.39
Other monetary funds	21,004.87	1,005.70
Total	853,362,710.92	801,647,230.19
Including: Total overseas deposits	34,369,340.82	48,989,879.44

Note: (1) As at 30 June 2022, the Group had no restricted monetary funds.

- (2) As at 30 June 2022, the Group's non-cash and cash equivalent time deposits and accrued interest on time deposits are RMB340,937,560.67. Bank demand deposits generate interest income at the interest rate of bank demand deposits. The term of short-term time deposits ranges from 7 days to 12 months, depending on the cash needs of the Group, and interest income is obtained at the corresponding bank time deposit rates.

## (5) FINANCIAL ASSETS HELD FOR TRADING

Item	RMB	
	30 June 2022	31 December 2021
Financial assets at fair value through current profit or loss	250,428,219.18	390,948,111.87
– debt instrument investments	250,428,219.18	390,948,111.87

At 30 June 2022, the debt instrument investments of RMB250,428,219.18 held by the Group were all structured deposits.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (6) NOTES RECEIVABLE

### 1. Notes receivable by category

Item	RMB	
	30 June 2022	31 December 2021
Bank acceptance notes	255,396,623.75	222,633,952.12
Commercial acceptance notes	133,717,781.83	149,729,642.13
<b>Total</b>	<b>389,114,405.58</b>	<b>372,363,594.25</b>

### 2. Disclosure under the methods of provision for bad debts by category

Category	30 June 2022					31 December 2021				
	Book balance		Provision for bad and doubtful debts		Carrying amounts	Book balance		Provision for bad and doubtful debts		Carrying amounts
	Amount	Percentage (%)	Amount	Percentage of provision (%)		Amount	Percentage (%)	Amount	Percentage of provision (%)	
	Amount	(%)	Amount	provision (%)	Amount	(%)	Amount	provision (%)		
Bad debt provision made on individual basis	396,154,392.58		7,039,987.00		389,114,405.58	379,334,999.84		6,971,405.59		372,363,594.25
Of which:										
Bank acceptance notes portfolio	255,396,623.75	64.47	-	-	255,396,623.75	222,633,952.12	58.69	-	-	222,633,952.12
Commercial acceptance notes portfolio	140,757,768.83	35.53	7,039,987.00	5.00	133,717,781.83	156,701,047.72	41.31	6,971,405.59	4.45	149,729,642.13
<b>Total</b>	<b>396,154,392.58</b>		<b>7,039,987.00</b>		<b>389,114,405.58</b>	<b>379,334,999.84</b>		<b>6,971,405.59</b>		<b>372,363,594.25</b>

### 3. Provision for bad debts

Category	RMB		
	At 31 December 2021 and at 1 January 2022	Change during the period Provision	30 June 2022
Commercial acceptance notes	6,971,405.59	68,581.41	7,039,987.00
<b>Total</b>	<b>6,971,405.59</b>	<b>68,581.41</b>	<b>7,039,987.00</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (7) ACCOUNTS RECEIVABLE

### 1. An ageing analysis based on the invoice date is as follows:

Ageing	RMB 30 June 2022
Within 1 year	705,793,855.11
1 to 2 years	51,643,157.25
2 to 3 years	9,122,346.60
3 to 4 years	8,328,255.65
4 to 5 years	9,002,455.82
Over 5 years	6,994,489.59
<b>Total</b>	<b>790,884,560.02</b>

### 2. Disclosure under the methods of provision for bad debts by category

Category	30 June 2022					31 December 2021				
	Book balance		Provision for bad and doubtful debts		Carrying amounts	Book balance		Provision for bad and doubtful debts		Carrying amounts
	Amount	Percentage (%)	Amount	Percentage of provision (%)		Amount	Percentage (%)	Amount	Percentage of provision (%)	
Accounts receivable for which bad debt allowance is provided by portfolio of credit risk characteristics	790,884,560.02	100.00	22,629,699.75	2.86	768,254,860.27	469,012,257.37	100.00	17,309,126.59	3.69	451,703,130.78
Highly Reliable Product										
Sales Portfolio	306,300,965.79	38.73	7,199,262.00	2.35	299,101,703.79	220,338,215.38	46.98	5,120,432.94	2.32	215,217,782.44
Industrial Sales Portfolio	436,296,410.24	55.17	13,965,025.72	3.20	422,331,384.52	208,153,293.48	44.38	10,972,724.87	5.27	197,180,568.61
Testing Services Portfolio	48,287,183.99	6.10	1,465,412.03	3.03	46,821,771.96	40,520,748.51	8.64	1,215,968.78	3.00	39,304,779.73
<b>Total</b>	<b>790,884,560.02</b>		<b>22,629,699.75</b>		<b>768,254,860.27</b>	<b>469,012,257.37</b>		<b>17,309,126.59</b>		<b>451,703,130.78</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (7) ACCOUNTS RECEIVABLE (Continued)

### 3. Provision for bad debts

Category	At		Change during the period		30 June 2022
	31 December 2021 and at 1 January 2022	Provision	Recovery or reversal	Write-off or cancellation	
Bad debt provision	17,309,126.59	5,320,573.16	–	–	<b>22,629,699.75</b>
Total	17,309,126.59	5,320,573.16	–	–	<b>22,629,699.75</b>

### 4. Five largest accounts receivable by debtors at the end of the period

Entity name	Book balance	Percentage of balance of accounts receivable (%)	Provision for bad debts
First	142,074,000.00	17.96	–
Second	111,616,500.00	14.11	–
Third	45,759,007.90	5.79	–
Forth	40,733,780.00	5.15	477,630.00
Fifth	24,678,110.00	3.12	1,134,336.00
Total	364,861,397.90	46.13	1,611,966.00

## (8) PREPAYMENTS

### 1. By ageing

Ageing	30 June 2022		31 December 2021	
	Amount	Percentage (%)	Amount	Percentage (%)
Within 1 year	<b>196,163,630.22</b>	<b>93.50</b>	79,915,144.94	94.73
1 to 2 years	<b>13,626,442.37</b>	<b>6.50</b>	4,447,706.23	5.27
Total	<b>209,790,072.59</b>	<b>100.00</b>	84,362,851.17	100.00

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (8) PREPAYMENTS *(Continued)*

### 2. Five largest prepayments by debtor at the end of the period

Entity name	Book balance	RMB Percentage of balance of prepayments (%)
First	65,689,786.65	31.31
Second	52,037,448.44	24.80
Third	25,659,757.50	12.23
Forth	14,666,968.52	6.99
Fifth	12,945,805.44	6.17
<b>Total</b>	<b>170,999,766.55</b>	<b>81.50</b>

## (9) OTHER RECEIVABLES

Item	30 June 2022	RMB 31 December 2021
Interest receivables from time deposits	<b>26,882.23</b>	–
Other receivables	<b>16,701,474.17</b>	18,473,721.44
<b>Total</b>	<b>16,728,356.40</b>	18,473,721.44

### Other receivables

#### 1. By ageing

Ageing	RMB 30 June 2022
Within 1 year	<b>1,201,098.80</b>
1 to 2 years	<b>14,015,602.58</b>
2 to 3 years	<b>321,912.30</b>
Over 3 years	<b>1,162,860.49</b>
<b>Total</b>	<b>16,701,474.17</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (9) OTHER RECEIVABLES (Continued)

### Other receivables (Continued)

#### 2. By nature

Nature	RMB	
	30 June 2022	31 December 2021
Deposit guarantee	15,524,334.89	16,991,100.39
Collection on behalf of payment	999,610.00	1,242,464.07
Reserve fund	68,521.95	90,021.95
Others	109,007.33	150,135.03
<b>Total</b>	<b>16,701,474.17</b>	<b>18,473,721.44</b>

#### 3. Five largest other receivables by debtor at the end of the period

Entity name	Nature of the receivable	30 June 2022	Ageing	RMB
				Percentage of total other receivables at the end of the period (%)
First	Deposits	13,303,335.64	1 to 2 years	79.53
Second	Rental deposits	737,117.50	1 to 2 years	4.41
Third	Receivables	540,000.00	Within 1 year, 1 to 2 years	3.23
Forth	Rental deposits	252,525.90	1 to 2 years	1.51
Fifth	Deposits	226,800.00	1 to 2 years	1.36
<b>Total</b>		<b>15,059,779.04</b>		<b>90.04</b>

## (10) INVENTORIES

### 1. Inventories by category

Item	30 June 2022			31 December 2021		
	Book balance	Provision for impairment of inventory/contract performance cost	Carrying amounts	Book balance	Provision for impairment of inventory/contract performance cost	Carrying amounts
Raw materials	223,704,852.72	28,213,582.68	195,491,270.04	175,843,052.64	17,189,710.15	158,653,342.49
Work-in-progress	623,735,042.14	47,279,192.83	576,455,849.31	502,350,897.86	30,705,167.24	471,645,730.62
Finished goods	369,151,599.54	48,123,655.55	321,027,943.99	331,237,956.71	45,453,965.10	285,783,991.61
<b>Total</b>	<b>1,216,591,494.40</b>	<b>123,616,431.06</b>	<b>1,092,975,063.34</b>	<b>1,009,431,907.21</b>	<b>93,348,842.49</b>	<b>916,083,064.72</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (10) INVENTORIES (Continued)

### 2. Provision for impairment of inventory and contract performance cost

Item	At 31 December 2021 and at 1 January 2022	Increase during the period Provision	Decrease during the period Write-back or write-off	RMB
				30 June 2022
Raw materials	17,189,710.15	11,023,872.53	–	<b>28,213,582.68</b>
Work-in-progress	30,705,167.24	17,343,267.86	769,242.27	<b>47,279,192.83</b>
Finished goods	45,453,965.10	13,214,569.88	10,544,879.43	<b>48,123,655.55</b>
<b>Total</b>	<b>93,348,842.49</b>	<b>41,581,710.27</b>	<b>11,314,121.70</b>	<b>123,616,431.06</b>

## (11) OTHER CURRENT ASSETS

Item	RMB	
	30 June 2022	31 December 2021
Amortized expenses	<b>5,004,960.29</b>	1,694,878.11
Input VAT to be deducted	<b>2,633,607.05</b>	4,386,193.63
<b>Total</b>	<b>7,638,567.34</b>	6,081,071.74

## (12) LONG-TERM EQUITY INVESTMENTS

Investee	31 December 2021	Increase or decrease during the period Investment profit or loss recognized with the equity method	Others	RMB
				30 June 2022
Associates				
Shanghai Xihongqiao Navigation Technology Co., Ltd	2,587,918.24	(132,253.46)	–	<b>2,455,664.78</b>
Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	45,220,181.33	(2,477,055.62)	–	<b>42,743,125.71</b>
Shanghai Fudan Sci-Tech. Park Venture Investment Co., Ltd	17,065,710.31	(269,839.83)	–	<b>16,795,870.48</b>
Shanghai Haojun Venture Capital Partnership (Limited Partnership)	9,895,378.44	(246,056.16)	–	<b>9,649,322.28</b>
Spear Innovations Oy Ltd	739,581.20	69,849.53	–	<b>809,430.73</b>
<b>Total</b>	<b>75,508,769.52</b>	<b>(3,055,355.54)</b>	<b>–</b>	<b>72,453,413.98</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (13) INVESTMENTS IN OTHER EQUITY INSTRUMENTS

Item	30 June 2022	31 December 2021
Shanghai Fudan Communication Co., Ltd.	26,611,443.62	26,611,443.62
Etopus Technology, Inc	3,355,700.00	3,187,850.00
ScaleFlux, Inc	3,355,678.32	3,187,829.41
<b>Total</b>	<b>33,322,821.94</b>	<b>32,987,123.03</b>

## (14) FIXED ASSETS

Item	30 June 2022	31 December 2021
Fixed assets	746,178,715.99	567,876,494.59
<b>Total</b>	<b>746,178,715.99</b>	<b>567,876,494.59</b>

### Fixed assets

Item	Buildings and structures	Machinery and equipment	Motor vehicles	Electronics and other equipment	Total
Original book value					
31 December 2021	361,821,534.47	684,558,273.74	8,900,089.69	52,607,574.70	1,107,887,472.60
Increase during the period					
Additions	191,984,535.10	19,527,877.76	-	387,069.23	211,899,482.09
Transfer from construction in progress	-	21,400,113.19	-	-	21,400,113.19
Exchange realignment	-	-	-	6,333.79	6,333.79
Decrease during the period					
Disposal or written off	-	242,441.42	-	2,300.00	244,741.42
<b>30 June 2022</b>	<b>553,806,069.57</b>	<b>725,243,823.27</b>	<b>8,900,089.69</b>	<b>52,998,677.72</b>	<b>1,340,948,660.25</b>
Accumulated depreciation					
31 December 2021	34,229,387.65	471,230,311.04	6,766,961.31	27,784,318.01	540,010,978.01
Increase during the period					
Provision	5,509,864.20	47,703,478.37	277,936.02	1,497,799.38	54,989,077.97
Exchange realignment	-	-	-	4,714.61	4,714.61
Decrease during the period					
Disposal or written off	-	232,641.33	-	2,185.00	234,826.33
<b>30 June 2022</b>	<b>39,739,251.85</b>	<b>518,701,148.08</b>	<b>7,044,897.33</b>	<b>29,284,647.00</b>	<b>594,769,944.26</b>
Carrying amounts					
<b>30 June 2022</b>	<b>514,066,817.72</b>	<b>206,542,675.19</b>	<b>1,855,192.36</b>	<b>23,714,030.72</b>	<b>746,178,715.99</b>
31 December 2021	327,592,146.82	213,327,962.70	2,133,128.38	24,823,256.69	567,876,494.59

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (15) CONSTRUCTION IN PROGRESS

Item	30 June 2022	31 December 2021
Construction in progress	<b>108,061,736.57</b>	54,689,418.17
Total	<b>108,061,736.57</b>	54,689,418.17

### Construction in progress

Item	30 June 2022			31 December 2021		
	Book balance	Provision for impairment	Carrying amounts	Book balance	Provision for impairment	Carrying amounts
Leasehold improvement	1,508,000.00	-	1,508,000.00	1,176,224.28	-	1,176,224.28
Equipment to be commissioned	106,553,736.57	-	106,553,736.57	53,513,193.89	-	53,513,193.89
Total	<b>108,061,736.57</b>	<b>108,061,736.57</b>	<b>108,061,736.57</b>	54,689,418.17	-	54,689,418.17

### Changes in the current period of important projects under construction

Item	At 31 December 2021 and at 1 January 2022	Increase during the period	Transferred to fixed assets during the period	Decrease during the period	30 June 2022
	Leasehold improvement	53,892.05	1,508,000.00	-	53,892.05
Equipment to be commissioned	54,635,526.12	73,318,323.64	21,400,113.19	-	<b>106,553,736.57</b>
Total	54,689,418.17	74,826,323.64	21,400,113.19	53,892.05	<b>108,061,736.57</b>

## (16) RIGHT-OF-USE ASSETS

Item	Buildings and structures		Motor Vehicle	Total
	Original book value			
31 December 2021	74,481,210.39	-	74,481,210.39	
Increase during the period	5,364,273.05	241,011.21	5,605,284.26	
<b>30 June 2022</b>	<b>79,845,483.44</b>	<b>241,011.21</b>	<b>80,086,494.65</b>	
Accumulated depreciation				
31 December 2021	26,538,776.48	-	26,538,776.48	
Increase during the period	7,587,912.07	13,389.51	7,601,301.58	
Provision	-	-	-	
<b>30 June 2022</b>	<b>34,126,688.55</b>	<b>13,389.51</b>	<b>34,140,078.06</b>	
Carrying amounts				
<b>30 June 2022</b>	<b>45,718,794.89</b>	<b>227,621.70</b>	<b>45,946,416.59</b>	
31 December 2021	47,942,433.91	-	47,942,433.91	

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (17) INTANGIBLE ASSETS

Item	Software use right	Patent technologies	RMB Total
Original book value			
31 December 2021	83,993,829.08	493,508,634.74	577,502,463.82
Increase during the period			
Additions	999,284.26	–	999,284.26
In-house research and development	–	16,439,417.93	16,439,417.93
<b>30 June 2022</b>	<b>84,993,113.34</b>	<b>509,948,052.67</b>	<b>594,941,166.01</b>
Accumulated amortisation			
31 December 2021	64,456,071.94	345,830,483.36	410,286,555.30
Increase during the period			
Provision	8,544,773.74	16,847,576.47	25,392,350.21
<b>30 June 2022</b>	<b>73,000,845.68</b>	<b>362,678,059.83</b>	<b>435,678,905.51</b>
Provision for impairment			
31 December 2021	–	92,382,735.85	92,382,735.85
Increase during the period			
Provision	–	267,427.16	267,427.16
<b>30 June 2022</b>	<b>–</b>	<b>92,650,163.01</b>	<b>92,650,163.01</b>
Carrying amounts			
<b>30 June 2022</b>	<b>11,992,267.66</b>	<b>54,619,829.83</b>	<b>66,612,097.49</b>
31 December 2021	19,537,757.14	55,295,415.53	74,833,172.67

At the end of the period, the intangible assets formed through in-house research and development of the Company accounted for 85.71% of the balance of intangible assets

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (18) DEVELOPMENT COSTS

RMB

Item	At 31 December 2021 and at 1 January 2022	Increase during the period In-house development expenses	Decrease during the period		30 June 2022
			Recognized as intangible assets	Included in profit or loss	
Security and identification IC chips	45,016,100.16	16,519,398.41	6,202,332.17	2,848,576.09	<b>52,484,590.31</b>
Non-volatile memory	13,744,842.59	10,573,562.91	–	–	<b>24,318,405.50</b>
Smart Meter chips	10,154,931.00	4,230,336.00	10,237,085.76	–	<b>4,148,181.24</b>
FPGA and other chips	103,812,253.68	41,731,583.92	–	28,519,487.72	<b>117,024,349.88</b>
<b>Total</b>	<b>172,728,127.43</b>	<b>73,054,881.24</b>	<b>16,439,417.93</b>	<b>31,368,063.81</b>	<b>197,975,526.93</b>

The Group considers the commencement of capitalization of Development costs by holding a project review meeting for development expenditure projects and passing the review. The internal review meeting mainly considers whether the Company has the technical reserve to complete the development expenditure project, whether the development expenditure project can subsequently result in products, whether there is a future market for the products resulting from the development expenditure project, and whether the Company has sufficient resources to complete the development expenditure project. Through the internal review meeting, it is shown that the development expenditure project meets the conditions for the capitalization of development expenditure in the ASBEs.

## (19) LONG-TERM PREPAID EXPENSES

RMB

Item	At 31 December 2021 and at 1 January 2022	Increase during the period	Amortised during the period	30 June 2022
<b>Total</b>	<b>57,378,801.04</b>	<b>18,317,521.30</b>	<b>7,066,898.40</b>	<b>68,629,423.94</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (20) DEFERRED INCOME TAX ASSETS/DEFERRED INCOME TAX LIABILITIES

### 1. Deferred income tax assets before offsetting

Item	30 June 2022		31 December 2021	
	Deductible temporary differences	Deferred income tax Assets	Deductible temporary differences	Deferred income tax Assets
Provision for impairment of assets	1,778,126.55	266,718.98	1,215,968.74	182,395.31
Government grants	42,983,806.58	6,447,570.99	44,061,715.57	6,609,257.34
Accrued expenses	607,079.65	91,061.95	283,018.87	42,452.83
Lease liabilities	37,073,196.87	5,560,979.53	32,724,692.67	4,908,703.90
Unrealised profits of intra-group transactions	147,161.87	22,074.28	1,183,711.87	177,556.78
<b>Total</b>	<b>82,589,371.52</b>	<b>12,388,405.73</b>	<b>79,469,107.72</b>	<b>11,920,366.16</b>

### 2. Deferred income tax liabilities before offsetting

Item	30 June 2022		31 December 2021	
	Taxable temporary differences	Deferred income tax Liabilities	Taxable temporary differences	Deferred income tax Liabilities
Fair value change of other equity instrument investments	26,611,443.62	3,991,716.54	26,611,443.62	3,991,716.54
Depreciation of fixed assets	14,514.42	2,394.88	13,876.48	2,289.62
Right-of-use assets	30,737,172.39	4,610,575.86	29,574,312.59	4,436,146.89
<b>Total</b>	<b>57,363,130.43</b>	<b>8,604,687.28</b>	<b>56,199,632.69</b>	<b>8,430,153.05</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (20) DEFERRED INCOME TAX ASSETS/DEFERRED INCOME TAX LIABILITIES *(Continued)*

### 3. Deferred income tax assets or liabilities presented at net amount after offsetting:

Item	30 June 2022		31 December 2021	
	Offset amount of deferred income tax assets and Liabilities	Remaining deferred income tax assets or liabilities after offset	Offset amount of deferred income tax assets and Liabilities	Remaining deferred income tax assets or liabilities after offset
Deferred income tax assets	<b>(4,610,575.86)</b>	<b>7,777,829.87</b>	(4,436,146.89)	7,484,219.27
Deferred income tax liabilities	<b>(4,610,575.86)</b>	<b>3,994,111.42</b>	(4,436,146.89)	3,994,006.16

### 4. Details of unrecognised deferred income tax assets

Item	RMB	
	30 June 2022	31 December 2021
Deductible temporary differences	<b>567,638,906.58</b>	407,905,616.59
Deductible losses	<b>718,849,463.17</b>	569,023,135.78
Total	<b>1,286,488,369.75</b>	976,928,752.37

### 5. Deductible losses that are not recognized for deferred income tax assets will expire in the following years

Year	RMB	
	30 June 2022	31 December 2021
2022	<b>1,377,988.63</b>	1,377,988.63
2023	<b>91,190,301.54</b>	1,200,928.90
2024	<b>385,787,509.81</b>	371,334,156.51
2025	<b>199,930,133.93</b>	192,935,705.42
2026	<b>40,563,529.26</b>	2,174,356.32
Total	<b>718,849,463.17</b>	569,023,135.78

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (21) OTHER NON-CURRENT ASSETS

Item	30 June 2022			31 December 2021		
	Book balance	Provision for impairment	Carrying amounts	Book balance	Provision for impairment	Carrying amounts
Prepaid plant	26,779,970.20	–	26,779,970.20	26,779,970.20	–	26,779,970.20
Rental deposit	2,364,680.38	–	2,364,680.38	–	–	–
Prepaid equipment	12,325,684.28	–	12,325,684.28	5,142,877.20	–	5,142,877.20
Total	41,470,334.86		41,470,334.86	31,922,847.40		31,922,847.40

## (22) SHORT-TERM BORROWINGS

Item	RMB	
	30 June 2022	31 December 2021
Unsecured borrowings	–	100,000.00
Total	–	100,000.00

## (23) ACCOUNTS PAYABLE

An ageing analysis based on the invoice date is as follows:

	RMB	
	30 June 2022	31 December 2021
Within 1 year	246,059,398.72	200,135,123.53
1 to 2 years	6,103,578.31	127,795.00
Total	252,162,977.03	200,262,918.53

## (24) CONTRACT LIABILITIES

Item	RMB	
	30 June 2022	31 December 2021
Contract payment in advance	304,071,800.33	126,274,826.25
Total	304,071,800.33	126,274,826.25

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (25) EMPLOYEE BENEFITS PAYABLES

### 1. Employee benefits payable

Item	At 31 December			RMB
	2021 and at 1 January 2022	Increase during the period	Decrease during the period	30 June 2022
Short-term employee benefits	157,588,171.21	374,588,954.73	393,499,051.21	<b>138,678,074.73</b>
Post-employment – Defined contribution plan	4,423,925.93	28,586,044.74	28,479,135.26	<b>4,530,835.41</b>
<b>Total</b>	<b>162,012,097.14</b>	<b>403,174,999.47</b>	<b>421,978,186.47</b>	<b>143,208,910.14</b>

### 2. Short-term employee benefits

Item	At 31 December			RMB
	2021 and at 1 January 2022	Increase during the period	Decrease during the period	30 June 2022
Salary, bonus, allowances and subsidies	117,070,899.74	341,553,250.37	360,732,344.93	<b>97,891,805.18</b>
Employee welfare	–	1,543,180.96	1,543,180.96	–
Social insurance	2,418,238.59	18,744,458.72	18,688,771.43	<b>2,473,925.88</b>
Including:				
Medical insurance	2,060,899.16	18,127,091.06	17,950,018.83	<b>2,237,971.39</b>
Work injury insurance	294,764.13	602,994.21	693,966.72	<b>203,791.62</b>
Maternity insurance	62,575.30	14,373.45	44,785.88	<b>32,162.87</b>
Housing funds	1,789,498.55	12,655,517.11	12,427,898.04	<b>2,017,117.62</b>
Labour union funds and employee education funds	36,309,534.33	92,547.57	106,855.85	<b>36,295,226.05</b>
<b>Total</b>	<b>157,588,171.21</b>	<b>373,788,954.73</b>	<b>393,499,051.21</b>	<b>138,678,074.73</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (25) EMPLOYEE BENEFITS PAYABLES (Continued)

### 3. Defined contribution plan

Item	31 December			30 June 2022
	2021 and 1 January 2022	Increase during the period	Decrease during the period	
Basic pensions	4,210,795.97	27,729,036.78	27,626,222.44	<b>4,313,610.31</b>
Unemployment insurance	213,129.96	857,007.96	852,912.82	<b>217,225.10</b>
<b>Total</b>	<b>4,423,925.93</b>	<b>28,586,044.74</b>	<b>28,479,135.26</b>	<b>4,530,835.41</b>

## (26) TAXES PAYABLE

Item	RMB	
	30 June 2022	31 December 2021
VAT	<b>19,181,440.40</b>	3,668,197.40
EIT	<b>807,516.44</b>	4,212,007.07
Individual income tax	<b>10,153,228.27</b>	6,454,450.00
City maintenance and construction tax	<b>1,731,426.93</b>	368,433.05
Education surcharge	<b>742,040.11</b>	157,899.88
Local education surcharge	<b>494,693.30</b>	105,266.59
Stamp duties	<b>57,779.32</b>	23,323.51
Property tax	–	736,452.08
Land-use tax	–	5,065.97
<b>Total</b>	<b>33,168,124.77</b>	<b>15,731,095.55</b>

## (27) OTHER PAYABLES

Item	RMB	
	30 June 2022	31 December 2021
Dividend payable for ordinary shares	<b>52,942,630.00</b>	–
Others	<b>26,039,350.18</b>	31,163,593.01
<b>Total</b>	<b>78,981,980.18</b>	<b>31,163,593.01</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (27) OTHER PAYABLES *(Continued)*

### Other payables – others by nature of payment

Item	30 June 2022	31 December 2021
Payable expenses	8,971,933.83	16,112,219.75
Disability deposit	8,310,009.48	8,071,642.60
Collection and payment	5,571,038.36	3,615,080.90
Others	3,186,368.51	3,364,649.76
<b>Total</b>	<b>26,039,350.18</b>	<b>31,163,593.01</b>

## (28) NON-CURRENT LIABILITIES DUE WITHIN 1 YEAR

Item	30 June 2022	31 December 2021
Current portion of long-term borrowings	–	31,655,540.83
Current portion of lease liabilities	16,036,295.69	13,177,394.67
<b>Total</b>	<b>16,036,295.69</b>	<b>44,832,935.50</b>

## (29) OTHER CURRENT LIABILITIES

Item	30 June 2022	31 December 2021
Accrued expenses	54,742,750.35	31,524,561.35
Government grants	103,608,000.00	101,246,500.00
<b>Total</b>	<b>158,350,750.35</b>	<b>132,771,061.35</b>

## (30) LONG-TERM BORROWINGS

Item	30 June 2022	31 December 2021
Pledged borrowings	–	49,855,540.83
Less: Current portion of long-term borrowings	–	31,655,540.83
<b>Total</b>	<b>–</b>	<b>18,200,000.00</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (31) LEASE LIABILITIES

Item	30 June 2022	31 December 2021
House rental	53,235,260.63	51,730,920.03
Less: House rental due within one year	15,736,788.66	13,177,394.67
Motor vehicle	451,539.17	–
Less: Lease of motor vehicle due within one year	299,507.03	–
<b>Total</b>	<b>37,650,504.11</b>	<b>38,553,525.36</b>

## (32) DEFERRED INCOME

### Deferred income

Item	At 31 December 2021 and at 1 January 2022	Increase during the period	Decrease during the period	30 June 2022
Government grants				
Government grants related to assets	20,499,998.17	–	3,792,151.96	16,707,846.21
Government grants related to revenue	3,715,579.67	–	2,204,279.88	1,511,299.79
<b>Total</b>	<b>24,215,577.84</b>	<b>–</b>	<b>5,996,431.84</b>	<b>18,219,146.00</b>

Projects involving government grants:

Items	At 31 December 2021 and at 1 January 2022	Additional grant during the period	Amount included in other income in the period	30 June 2022	Related to assets/ revenue
Chip design	11,490,362.27	–	4,057,022.85	7,433,339.42	income and assets
Testing services	11,386,888.88	–	1,609,743.45	9,777,145.43	assets
Others	1,338,326.69	–	329,665.54	1,008,661.15	assets

## (33) SHARE CAPITAL

Share capital	At 31 December 2021 and at 1 January 2022	change in the period	30 June 2022
	81,450,200.00	–	81,450,200.00

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (34) CAPITAL RESERVE

RMB

Item	At 31 December 2021 and at 1 January 2022	Increase during the period	30 June 2022
Capital premium (share capital premium)	1,213,969,600.18	–	<b>1,213,969,600.18</b>
Other capital reserve	45,243,329.75	73,698,643.14	<b>118,941,972.89</b>
<b>Total</b>	<b>1,259,212,929.93</b>	<b>73,698,643.14</b>	<b>1,332,911,573.07</b>

## (35) OTHER COMPREHENSIVE INCOME

RMB

Item	At 31 December 2021 and at 1 January 2022	Amount for the the period Attributable Amount before income tax in the period	to the Parent Company after tax	30 June 2022
Other comprehensive income that may not be reclassified to profit or loss	13,794,382.31	–	–	<b>13,794,382.31</b>
Exchange differences arising from translation of foreign currency financial statements	(3,285,299.61)	1,660,114.21	1,660,114.21	<b>(1,625,185.40)</b>
<b>Total other comprehensive income</b>	<b>10,509,082.70</b>	<b>1,660,114.21</b>	<b>1,660,114.21</b>	<b>12,169,196.91</b>

## (36) SURPLUS RESERVE

RMB

Item	At 31 December 2021 and at 1 January 2022	30 June 2022
Statutory surplus reserve	40,725,100.00	<b>40,725,100.00</b>
<b>Total</b>	<b>40,725,100.00</b>	<b>40,725,100.00</b>

According to the Company Law and the Articles of Association of the Company, the Company appropriates 10% of the net profit to the statutory surplus reserve. If the accumulated amount of statutory surplus reserve is more than 50% of the company's registered capital, it can no longer be withdrawn.

The Company can withdraw the discretionary surplus reserve after the withdrawn of statutory surplus reserve. Upon approval, the discretionary surplus reserve can be used to make up for losses in previous years or to increase share capital.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (37) UNDISTRIBUTED PROFITS

Item	RMB	
	Half-year ended 30 June 2022	Year ended 31 December 2021
Closing balance of undistributed profits for the prior period before adjustment	1,748,348,393.72	1,239,128,570.38
Opening balance of undistributed profits after adjustment	1,748,348,393.72	1,239,128,570.38
Add: net profits attributable to owners of the Parent Company for the period	530,531,484.80	514,466,780.71
Less: transfer statutory surplus reserve	–	5,246,957.37
Less: dividend payable for ordinary shares	52,942,630.00	–
Closing balance of undistributed profits	2,225,937,248.52	1,748,348,393.72

## (38) OPERATING INCOME AND OPERATING COST

### 1. Operating income and operating cost

Item	RMB			
	Half-year ended 30 June		2021	
	2022 Income	Cost	Income	Cost
Principal businesses	1,688,115,777.22	591,643,843.91	1,116,027,019.47	502,140,732.66
Other businesses	14,217,577.64	4,227,619.77	12,636,974.96	3,210,940.27
Total	1,702,333,354.86	595,871,463.68	1,128,663,994.43	505,351,672.93

### 2. Operating income generated from contracts

Contract classification	RMB		
	Design and sales of integrated circuits	Integrated Circuit Testing Service	Total
Types of products			
Security and Identification chips	461,138,486.92	–	461,138,486.92
Non-volatile Memory	487,021,552.37	–	487,021,552.37
Smart meter chips	275,553,793.34	–	275,553,793.34
FPGA and other chips	378,351,763.38	–	378,351,763.38
Integrated Circuit Testing Service	–	100,267,758.85	100,267,758.85
Place of business			
PRC	1,513,322,122.17	96,443,567.99	1,609,765,690.16
Others	88,743,473.84	3,824,190.86	92,567,664.70
Sort by time of products transfer			
Operating income recognised at a certain point of time			
Sales of products	1,602,065,596.01	–	1,602,065,596.01
Provision of services	–	100,267,758.85	100,267,758.85
Total	1,602,065,596.01	100,267,758.85	1,702,333,354.86

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (38) OPERATING INCOME AND OPERATING COST *(Continued)*

### 2. Operating income generated from contracts *(Continued)*

The information related to the performance obligations of the Group is as follows:

#### *Sale of products*

Fulfill performance obligations when delivering products to customers. Usually, the payment obligation is performed after the customer signs for the products, and the Company gives different credit arrangements to different customers.

#### *Testing services*

The customer usually pays the contract price after the service is completed and the customer received the tested product.

## (39) BUSINESS TAXES AND SURCHARGES

Item	RMB	
	Half-year ended 30 June 2022	2021
City maintenance and construction tax	6,447,363.50	1,724,809.59
Education surcharge	2,763,155.79	782,514.15
Property tax	793,007.38	776,880.10
Land use tax	5,918.87	6,950.88
Vehicle and vessel use tax	720.00	1,680.00
Stamp duty	1,347,020.41	150,944.60
Local education surcharge	1,842,103.74	490,095.86
Total	13,199,289.69	3,933,875.18

## (40) SELLING EXPENSES

Item	RMB	
	Half-year ended 30 June 2022	2021
Employee remuneration	66,424,017.52	50,615,274.03
Share-based payment expenses	14,750,226.74	–
Property rental expenses	619,740.58	659,663.54
Consulting service fee	4,613,207.53	1,567,424.14
Office expenses	1,538,222.91	2,334,910.95
Sample expenses	812,771.87	3,175,641.96
Transportation and travel expenses	1,541,831.89	3,178,364.92
Business promotion expenses	121,139.41	17,481.13
Entertainment expenses	2,301,919.29	3,333,686.37
Transportation costs	1,871,552.60	4,833,468.59
Depreciation and amortization	3,041,514.67	1,977,061.86
Others	113,615.72	226,161.09
Total	97,749,760.73	71,929,138.58

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (41) ADMINISTRATIVE EXPENSES

Item	RMB	
	Half-year ended 30 June 2022	2021
Employee remuneration	36,584,649.51	27,063,097.64
Repairs and maintenance	2,140,652.91	2,049,641.09
Depreciation and amortization	8,151,866.12	4,564,451.84
Consulting service fee	2,472,646.31	3,278,019.72
Office expenses	4,861,418.55	5,263,558.18
Share-based payment expenses	1,423,195.24	–
Travelling expenses	523,907.53	1,398,338.88
Entertainment expenses	832,747.72	1,872,931.73
Security fund for the disabled	178.04	55.85
Others	2,869,944.39	1,678,267.05
Total	59,861,206.32	47,168,361.98

## (42) RESEARCH AND DEVELOPMENT EXPENSES

Item	RMB	
	Half-year ended 30 June 2022	2021
Employee remuneration	225,573,621.87	165,879,578.32
Share-based payment expenses	56,664,563.30	–
Material and processing expenses	55,370,105.69	73,846,685.70
Depreciation and amortization	31,254,787.84	58,781,012.95
Technical services expenses	180,274.61	2,816,251.23
Office expenses	737,506.65	1,426,597.50
Travel expenses	215,016.58	654,621.73
Others	3,786,617.65	2,605,701.58
Total	373,782,494.19	306,010,449.01

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (43) FINANCIAL EXPENSES

Item	RMB	
	Half-year ended 30 June	
	2022	2021
Interest expense	956,740.19	266,336.21
Less: interest income	(7,515,651.26)	(3,057,453.39)
Exchange gains and losses	792,877.50	1,228,755.12
Bank charges	164,374.86	211,983.76
Interest on lease liabilities	1,298,879.36	1,409,854.41
Total	(4,302,779.35)	59,476.11

## (44) OTHER INCOME

Item	RMB	
	Half-year ended 30 June	
	2022	2021
Government grants (Note)	21,548,583.82	36,551,616.53
Tax refund	1,693,712.01	6,178,249.39
Refund of handling fees for withholding individual income taxes	963,944.64	767,764.59
Total	24,206,240.47	43,497,630.51

Note: Details of government grants included in other gains are set out in note (57) of the financial statements.

## (45) INVESTMENT INCOME/(LOSS)

Item	RMB	
	Half-year ended 30 June	
	2022	2021
Loss on long-term equity investments accounted with the equity method	(3,055,355.07)	(2,500,004.75)
Investment income on financial assets held for trading	3,920,357.05	–
Total	865,001.98	(2,500,004.75)

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (46) GAINS FROM CHANGES IN FAIR VALUE

Item	RMB	
	Half-year ended 30 June 2022	2021
Financial assets held for trading	1,039,641.10	–
Total	1,039,641.10	–

## (47) CREDIT IMPAIRMENT LOSS

Item	RMB	
	Half-year ended 30 June 2022	2021
(Impairment loss)/Reversal of loss on bad debts of notes receivable	(68,581.41)	1,087,168.67
Impairment loss on bad debts of accounts receivable	(5,476,703.78)	(3,129,020.43)
Total	(5,545,285.19)	(2,041,851.76)

## (48) ASSET IMPAIRMENT LOSS

Item	RMB	
	Half-year ended 30 June 2022	2021
Impairment loss on inventory and contract performance cost	(41,574,560.57)	(7,956,389.75)
Impairment loss on intangible assets	(267,427.16)	(7,402,173.06)
Total	(41,841,987.73)	(15,358,562.81)

## (49) (LOSS)/GAIN ON DISPOSAL OF ASSETS

Item	RMB	
	Half-year ended 30 June 2022	2021
(Loss)/Gain on disposal of fixed assets	(4,605.35)	177,025.39
Total	(4,605.35)	177,025.39

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (50) NON-OPERATING INCOME

Item	Half-year ended 30 June		RMB
	2022	2021	Amount included in current non-recurring gains and losses
Others	21,222.51	–	–
Total	21,222.51	–	–

## (51) NON-OPERATING EXPENSES

Item	Half-year ended 30 June		RMB
	2022	2021	Amount included in current non-recurring gains and losses
Compensation and overdue fine	–	1,974.35	–
Total	–	1,974.35	–

## (52) INCOME TAX EXPENSES

### 1. Table of income tax expenses

Item	Half-year ended 30 June		RMB
	2022	2021	
Current income tax expense	3,644,731.41	6,832,818.17	
Deferred income tax expense	(289,883.94)	(542,079.42)	
Total	3,354,847.47	6,290,738.75	

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (52) INCOME TAX EXPENSES *(Continued)*

### 2. Reconciliation of accounting profits and income tax

Item	RMB Half-year ended 30 June 2022
Total profits	544,912,147.39
Income tax expense calculated at statutory/applicable tax rate	81,704,675.86
Impact of different tax rates applied to subsidiaries	318,736.92
Impact of non-deductible costs, expenses and losses	1,351,090.08
Tax impact of utilisation of unrecognized deductible losses and deductible temporary differences in previous years	(43,455,990.95)
Effect of deductible temporary differences or deductible losses that have not recognized for deferred income tax assets during the period	3,527,486.49
Deduction of research & development expenses	(40,096,520.05)
Others	5,369.12
Income tax expense	3,354,847.47

## (53) ITEMS IN THE CASH FLOW STATEMENT

### 1. Other cash receipts relating to operating activities

Item	RMB Half-year ended 30 June	
	2022	2021
Grants received	3,076,960.77	21,940,764.49
Interest income	3,133,791.92	705,449.02
Total	6,210,752.69	22,646,213.51

### 2. Other cash payments relating to operating activities

Item	RMB Half-year ended 30 June	
	2022	2021
Disbursement of sub-project funds	–	13,837,600.00
Cash out	59,181,265.90	76,983,981.77
Others	281,530.02	–
Total	59,462,795.92	90,821,581.77

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (53) ITEMS IN THE CASH FLOW STATEMENT (Continued)

### 3. Other cash receipts relating to investing activities

Item	RMB	
	Half-year ended 30 June 2022	2021
Time deposits interest	6,277,029.76	2,352,004.37
Total	6,277,029.76	2,352,004.37

## (54) OTHER CASH PAYMENTS RELATING TO FINANCING ACTIVITIES

Item	RMB	
	Half-year ended 30 June 2022	2021
Rent and interest paid	6,102,087.03	7,193,442.74
Listing expenses of subsidiaries	1,000,000.00	–
Total	7,102,087.03	7,193,442.74

## (55) SUPPLEMENTARY INFORMATION OF THE CASH FLOW STATEMENT

### 1. Supplementary information of the cash flow statement

Supplementary information	RMB	
	Half-year ended 30 June 2022	2021
<b>Net profit adjusted to cash flows of operating activities:</b>		
Net profit	541,557,299.92	211,692,544.12
Add: Provision for impairment of assets	47,387,272.92	17,400,414.57
Depreciation of fixed assets, depletion of oil and gas assets and depreciation of productive biological assets	62,576,990.05	48,049,209.69
Amortization of intangible assets	25,392,350.21	49,515,633.40
Amortization of long-term prepaid expenses	7,066,898.40	4,459,432.50
Loss/(gain) from disposal of fixed assets, intangible assets and other long-term assets	4,605.35	(177,025.39)
Gain on changes in fair value	(1,039,641.10)	–
Finance expenses	490,774.83	1,495,091.33
Investment (income)/loss	(865,001.98)	2,500,004.75
(Increase)/decrease in deferred income tax assets	(450,945.68)	112,004.12
Increase/(decrease) in deferred income tax liabilities	105.26	(3.72)
Increase in inventories	(207,159,587.19)	(135,390,468.63)
Increase in operating receivables	(494,696,277.09)	(80,605,075.95)
Increase in operating payables	275,143,674.63	116,680,738.08
Others	73,698,643.14	–
Net cash flows from operating activities	329,107,161.67	235,732,498.87
<b>Net changes in cash and cash equivalents:</b>		
Closing balance of cash	512,425,150.25	207,877,966.90
Less: Opening balance of cash	415,755,306.55	279,369,367.09
Net increase/(decrease) in cash and cash equivalents	96,669,843.70	(71,491,400.19)

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (55) SUPPLEMENTARY INFORMATION OF THE CASH FLOW STATEMENT

(Continued)

### 2. Composition of cash and cash equivalents

Item	RMB	
	30 June 2022	31 December 2021
Cash		
Including: Cash on hand	34,283.26	73,804.10
Bank deposits readily available for payment	512,369,862.12	415,680,496.75
Other cash readily available for payment	21,004.87	1,005.70
Closing balance of cash and cash equivalents	512,425,150.25	415,755,306.55

Note: As at the end of June 2022, closing balance of cash and cash equivalents in the cash flow statement is RMB512,425,150.25, and the closing balance of cash at bank and on hand on the balance sheet is RMB853,362,710.92, with a difference of RMB340,937,560.67, which is due to the fact that the RMB340,937,560.67 of fixed deposits and interest that do not meet the definition of cash and cash equivalents were deducted from “balance of cash and cash equivalents at the end of the period” in cash flow statement.

## (56) MONETARY ASSETS IN FOREIGN CURRENCY

Item	Dollar		
	Balance of foreign currency as at 30 June 2022	Conversion rate	Balance converted to RMB as at 30 June 2022
Cash			
Including: USD	14,487,867.11	6.7114	97,233,871.32
EUR	29,284,625.94	0.8552	25,043,919.26
Accounts receivable			
Including: USD	5,376,395.35	6.7114	35,738,573.22
HKD	3,940,868.64	0.8552	3,370,191.45
Accounts payable			
Including: USD	5,376,395.35	6.7114	36,083,139.75

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (57) GOVERNMENT GRANTS

### Information about government grants

Category	Amount	Item presented	RMB
			Amount included in the current profit or loss
Government grants for chip design	19,561,228.17	Other gains	19,561,228.17
Government grants for testing services	1,939,408.99	Other gains	1,939,408.99
Other government grants	47,946.66	Other gains	47,946.66
<b>Total</b>	<b>21,548,583.82</b>		<b>21,548,583.82</b>

## (58) INTERESTS IN OTHER ENTITIES

### 1. Interests in subsidiaries

#### (a) Composition of the Group

Name of subsidiaries	Operating place	Registered place	Business nature	Shareholding percentage (%)		
				Direct	Indirect	Manner
Sino IC Technology Co., Ltd.	Shanghai	Shanghai	IC products test	50.29	-	Established
Shanghai Fudan Microelectronics (Hong Kong) Limited	Hong Kong	Hong Kong	Investment and sales of IC products	100.00	-	Established
Shenzhen Fudan Microelectronics Company Limited	Shenzhen	Shenzhen	Sales of IC products	100.00	-	Established
Beijing Fudan Microelectronics Technology Co., Ltd.	Beijing	Beijing	Sales of IC products	100.00	-	Established

#### (b) Significant non-wholly-owned subsidiaries

Name of subsidiaries	Percentage of minority shareholding (%)	Profits or loss attributable to the minority shareholders	Dividends declared to distribute to the minority shareholders	RMB
				Balance of minority interests as at 30 June 2022
Sino IC Technology Co., Ltd.	49.71	11,697,616.88	-	<b>238,942,880.19</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (58) INTERESTS IN OTHER ENTITIES (Continued)

### 1. Interests in subsidiaries (Continued)

#### (c) Main financial information of significant non-wholly-owned subsidiaries

Sino IC Technology Co., Ltd.

Item	RMB	
	30 June 2022	31 December 2021
Current assets	281,705,214.60	310,155,296.16
Non-current assets	293,574,339.71	246,247,460.67
Total assets	575,279,554.31	556,402,756.83
Current liabilities	56,504,666.57	59,770,778.04
Non-current liabilities	38,101,220.09	39,490,028.86
Total liabilities	94,605,886.66	99,260,806.90

Item	RMB	
	Half-year ended 30 June 2022	2021
Operating income	124,231,347.45	128,020,918.20
Net profit	23,531,717.72	37,635,046.97
Total comprehensive income	23,531,717.72	37,635,046.97
Cash flow from operating activities	58,070,925.49	48,784,313.79

### 2. Interests in joint ventures or associates

#### (a) Significant joint ventures or associates

Name of joint venture or associated company	Place of principal operation	Place of registration	Nature of business	Shareholding percentage (%)		Accounting treatment method on investment in joint venture or associates
				Direct	Indirect	
Associates						
Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	Shanghai	Shanghai	IC design	21.25	–	Equity method
Shanghai Fudan Sci-Tech Park Venture Investment Co., Ltd	Shanghai	Shanghai	Equity investment	20.00	–	Equity method
Shanghai Haojun Venture Capital Partnership (Limited Partnership)	Shanghai	Shanghai	Equity investment	23.58	–	Equity method

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (58) INTERESTS IN OTHER ENTITIES *(Continued)*

### 2. Interests in joint ventures or associates *(Continued)*

#### *(b) Major financial information of significant associates*

	30 June 2022/ Half-year ended 30 June 2022		31 December 2021/ Half-year ended 30 June 2021	
	Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	Shanghai Haojun Venture Capital Partnership (Limited Partnership)	Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	Shanghai Haojun Venture Capital Partnership (Limited Partnership)
Current assets	<b>83,536,034.00</b>	<b>45,753,638.16</b>	95,066,373.48	42,400,133.33
Non-current assets	<b>9,309,582.92</b>	–	11,029,460.60	–
Total assets	<b>92,845,616.92</b>	<b>45,753,638.16</b>	106,095,834.08	42,400,133.33
Current liabilities	<b>3,924,081.60</b>	<b>1,832,000.00</b>	5,616,946.46	435,000.00
Non-current liabilities	<b>5,110,000.00</b>	–	5,110,000.00	–
Total liabilities	<b>9,034,081.60</b>	<b>1,832,000.00</b>	10,726,946.46	435,000.00
Equity attributable to shareholders of the parent company	<b>83,811,535.32</b>	<b>43,921,638.16</b>	95,368,887.62	41,965,133.33
Share of net assets calculated according to shareholding ratio	<b>17,809,951.26</b>	<b>10,356,722.28</b>	20,265,888.62	9,895,378.44
Adjustment: – Others	<b>24,933,174.45</b>	<b>(707,400.00)</b>	24,954,292.71	–
Book value of equity investment in associates	<b>42,743,125.71</b>	<b>9,649,322.28</b>	45,220,181.33	9,895,378.44
Operating income	<b>3,053,208.05</b>	–	6,400,708.02	–
Net profit	<b>(11,656,732.30)</b>	<b>(1,043,495.17)</b>	(11,522,858.78)	–
Total comprehensive income	<b>(11,656,732.30)</b>	<b>(1,043,495.17)</b>	(11,522,858.78)	–

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (58) INTERESTS IN OTHER ENTITIES *(Continued)*

### 2. Interests in joint ventures or associates *(Continued)*

#### *(b) Major financial information of significant associates (Continued)*

	<b>30 June 2022/ Half-year ended 30 June 2022</b>	RMB 31 December 2021/ Half-year ended 30 June 2021
<b>Shanghai Fudan Sci-Tech Park Venture Investment Co., Ltd</b>		
Current assets	<b>30,151,687.67</b>	34,498,967.90
Non-current assets	<b>50,675,552.95</b>	47,518,086.01
<b>Total assets</b>	<b>80,827,240.62</b>	82,017,053.91
Current liabilities	<b>5,245,944.91</b>	5,221,357.53
<b>Total liabilities</b>	<b>5,245,944.91</b>	5,221,357.53
Equity attributable to shareholders of the parent company	<b>75,581,295.71</b>	76,795,696.38
Share of net assets calculated according to shareholding ratio	<b>15,116,259.14</b>	17,065,710.31
Adjustment – Others	<b>1,679,611.34</b>	–
Book value of equity investment in associates	<b>16,795,870.48</b>	17,065,710.31
Operating income	<b>1,650,000.00</b>	–
Net profit	<b>(1,214,400.67)</b>	(679,143.89)
<b>Total comprehensive income</b>	<b>(1,214,400.67)</b>	(679,143.89)

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (59) RISKS RELATED TO FINANCIAL INSTRUMENTS

The Group is exposed to various types of risks from financial instruments in day-to-day operation, mainly including credit risk, liquidity risk and market risk (including foreign exchange risk, interest rate). The major financial instruments of the Group primarily include cash and bank balances, equity investments, borrowings, notes receivable, accounts receivable and accounts payable, etc. Risks in connection with such financial instruments, and the risk management strategies adopted by the Group to mitigate such risks are summarized as follows.

### 1. Credit risk

The Group only has trade with recognized third party with good credit standing. Based on the Group's policies, customers who conduct credit transaction will be subject to credit review. In addition, the Group will continuously monitor balance of accounts receivable to ensure that the Group will not be exposed to significant risk of bad debts. For transactions that are not settled in the functional currency of the relevant business unit, the Group does not provide credit transaction conditions unless specifically approved by the Group's credit control department.

Since counterparties of cash and bank balances, bank acceptance notes receivables and structured deposits are banks with good reputation and high credit ratings, credit risk arising from these financial instruments is insignificant.

Other financial assets of the Group include commercial acceptance notes receivables, accounts receivable, borrowings and other receivables, etc. Credit risk from such financial assets is from default of counterparties, and its maximum risk exposure is equivalent to the carrying amount of such instruments.

The Group's maximum credit risk exposure at each balance sheet date is the total amount charged to customers less the amount of impairment allowances.

Since the Group only trades with recognized third parties with good credit standing, no guarantee is required. Credit risk concentration is managed based on customer/counterparty, geographical region and industry sector. As at 30 June 2022, the Group is exposed to certain credit risk concentration, as 46.13% (31 December 2021: 33.11%) of accounts receivable are from top five customers. The Group does not hold any security or other credit increment over the balances of accounts receivable.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (59) RISKS RELATED TO FINANCIAL INSTRUMENTS *(Continued)*

### 1. Credit risk *(Continued)*

#### *Criteria for judging significant increases in credit risk*

The Group will evaluate whether credit risk in connection with financial instruments is increased significantly from initial recognition on each balance sheet date. When determining whether credit risk is increased significantly after initial recognition, the Group will consider obtaining reasonable information with supporting basis without paying extra cost or efforts, including qualitative and quantitative analysis over the historical data of the Group, external credit risk ratings and forward-looking information. Based on a single financial instrument or group of financial instruments with similar credit risk characteristics, the Group will determine estimated changes in default risks of financial instruments during the period of existence, by comparing the default risk of financial instruments on the balance sheet date and that upon initial recognition.

When one or more of the following quantitative and qualitative standards is triggered, credit risk in connection with financial instrument is increased significantly:

- (1) For quantitative standards, the probability of default in the remaining existence period after the reporting date is increased to a certain proportion as compared with that upon initial recognition;
- (2) For qualitative standards, there are significant adverse changes in operation or financial position of debtors and early-warning customer list;
- (3) For upper limit indicator, the debtor's contractual payments (including principal and interest) are more than 30 days overdue.

#### *Definition of credit-impaired assets*

To determine whether there is credit impairment, the defining standards adopted by the Group are consistent with the objective of internal credit risk management for related financial instruments, by reference to the quantitative and qualitative indicators. When debtors are evaluated for credit impairment, the following factors will be taken into account:

- (1) significant financial difficulty of issuers or debtors
- (2) breach of contract by debtors, such as default or overdue payment in interest or principal repayment;
- (3) a concession granted by the creditor to the debtor due to economic or contractual considerations related to the debtor's financial difficulty, which will not be granted under any other circumstances;
- (4) possible bankruptcy or other financial reorganization of the debtors;
- (5) disappearance of an active market for the financial asset due to financial difficulty of the issuer or the debtor;

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (59) RISKS RELATED TO FINANCIAL INSTRUMENTS *(Continued)*

### 1. Credit risk *(Continued)*

#### *Definition of credit-impaired assets (Continued)*

- (6) purchase or creation of a financial asset at significant discount reflecting the fact of credit loss.

Credit impairment of financial assets may be a joint result of multiple events, rather than a single identifiable event.

#### *Parameters for measurement of expected credit losses*

Impairment loss provision for different assets is measured based on 12 months or the whole existence period depending on whether there is a significant increase in credit risk and whether credit impairment is provisioned. Key parameters for measurement of expected credit losses include default probability, loss rate and risk exposure. The Group will take into account qualitative analysis on historical statistical data, such as counterparty rating, way of guarantee and types of collateral and way of repayment, etc. and forward-looking information to build default probability, loss rate and risk exposure model.

Relevant definitions are as follows:

- (1) Default probability refers to the possibility that the debtor will not be able to fulfil its obligations of repayment over the next 12 months or throughout the entire remaining lifetime. Default probability of the Group is adjusted based on the migration rate model with reference to forward-looking information to reflect the debtor's default probability under the current macroeconomic environment;
- (2) Loss rate is the expectation made for the degree of estimated loss suffered by the Group. The loss rate varies depending on the counterparty rating, method and priority for recourse and way of guarantee. Loss rate is the percentage of estimated loss of risk exposure, and calculated based on a period of next 12 months or the whole period of existence;
- (3) Risk exposure is the amount that the Group should be compensated in the next 12 months or the remaining existence period upon default.

Forward-looking information will be involved in both the evaluation of significantly increased credit risk and the calculation of expected credit losses. By analysis of historical data, the Group identified the key economic indicators affecting the credit risk and the expected credit loss of each business type.

The impact of these economic indicators on probability of default and loss given default varies for different business types. In this process, the Group applies expert judgment, forecasts these economic indicators every year according to the results of expert judgment, and determines the impact of these economic indicators on the probability of default and loss given default through analysis.

Refer to Note (6), (7) and (9) for the information on Group's credit risk exposure from notes receivable, accounts receivable, and other receivables.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (59) RISKS RELATED TO FINANCIAL INSTRUMENTS *(Continued)*

### 2. Liquidity risk

The Group uses a revolving liquidity planning tool to manage the risk of funding shortfalls. This tool considers both the maturity of its financial instruments and the expected cash flows generated from the Group's operations.

The Group's objective is to maintain a balance between continuity and flexibility of funding through the use of financing including bank borrowings and other interest-bearing borrowings.

The tables below summarise the maturity profile of the Group's financial liabilities based on contractual undiscounted payments:

Item	30 June 2022			RMB
	Within 1 year	1-3 years	Over 3 years	Total
Accounts payable	246,059,398.72	6,103,578.31	–	252,162,977.03
Others payables	62,770,642.30	15,303,197.73	908,140.15	78,981,980.18
Non-current liabilities due				
within one year	16,132,459.03	–	–	16,132,459.03
Lease liabilities	–	32,273,647.88	6,751,049.57	39,024,697.45
<b>Total</b>	<b>324,962,500.05</b>	<b>53,680,423.92</b>	<b>7,659,189.72</b>	<b>386,302,113.69</b>

Item	31 December 2021			RMB
	Within 1 year	1-3 years	Over 3 years	Total
Short-term borrowings	101,045.21	–	–	101,045.21
Accounts payable	200,262,918.53	–	–	200,262,918.53
Others payables	31,163,593.01	–	–	31,163,593.01
Non-current liabilities due				
within one year	48,143,536.49	–	–	48,143,536.49
Long-term borrowings	–	18,922,060.00	–	18,922,060.00
Lease liabilities	–	32,331,678.37	16,865,972.14	49,197,650.51
<b>Total</b>	<b>279,671,093.24</b>	<b>51,253,738.37</b>	<b>16,865,972.14</b>	<b>347,790,803.75</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (59) RISKS RELATED TO FINANCIAL INSTRUMENTS *(Continued)*

### 3. Market risk

- (1) Interest rate risk refers to the risk that the fair value or future cash flow of financial instruments will fluctuate due to changes in market interest rates. Interest-bearing financial instruments with fixed interest rates expose the Company to fair value interest rate risk, and interest-bearing financial instruments with floating interest rates expose the Company to cash flow interest rate risk. The Company determines the ratio of fixed interest rate and floating interest rate financial instruments according to the market environment, and maintains an appropriate financial instrument portfolio through regular review and monitoring.
- (2) Foreign exchange risk refers to the risk that the fair value or future cash flow of financial instruments will fluctuate due to changes in foreign exchange rates. The risk of exchange rate changes faced by the Company is mainly related to the Company's foreign currency monetary assets and liabilities. The Company operates in PRC and its main activities are denominated in RMB. Therefore, the market risk of foreign exchange changes undertaken by the Company is not significant. For the details of the Company's foreign currency monetary assets and liabilities, please refer to the description in Note (56) to the financial statements.

## (60) DISCLOSURE OF FAIR VALUE

### 1. Fair value of assets and liabilities measured at fair value at the end of the period

RMB

Item	Fair value as at 30 June 2022			Total
	Fair value measured at level 1	Fair value measured at level 2	Fair value measured at level 3	
Investment measured at continuous fair value				
Debt instruments	–	250,428,219.18	–	250,428,219.18
Others equity instrument	–	–	33,322,821.94	33,322,821.94

### 2. Qualitative and quantitative data on the valuation techniques used and important parameters for continuous and non-continuous second-level fair value measurement projects

The Group's continuous second level fair value measurement items are mainly structured deposits. The fair value of structured deposits adopts the expected yield and expected cash flow that can be obtained from similar products in the market, and is determined by discounting the interest rate determined based on the best estimate of the expected risk level.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (60) DISCLOSURE OF FAIR VALUE (Continued)

### 3. Qualitative and quantitative data on the valuation techniques used and important parameters for continuous and non-continuous third-level fair value measurement projects

Item	Valuation technique	Unobservable inputs	Range
Shanghai Fudan Communication Company Limited	Cash flow model	Sustainable growth rate	2.3%
		Discount rate	14%
		Liquidity discount	20%
		Minority interest discount	15%

## (61) RELATED PARTIES AND RELATED PARTY TRANSACTIONS

### 1. Information on other related parties

Name of other related party	Relationship between the other related party with the Company
Fudan University	Shareholders who indirectly hold more than 5% of the Company's shares
Shanghai Fudan Communication Company Limited	Company in which related natural persons serve as directors
Shanghai Fudan Science Park Co., Ltd.	Company in which related natural persons serve as directors
Shanghai Poyang Equity Investment Management Co., Ltd.	Subsidiary of associated companies

### 2. Information on related party transactions

#### (a) Related party transactions on purchase or sales of goods and provision or acceptance of services

##### Purchase of goods/services

Related party	Related party transactions	RMB	
		Half-year ended 30 June 2022	2021
Fudan University	Purchase of services (note)	–	1,300,450.00
Shanghai Fudan Sci-Tech. Park Venture Investment Co., Ltd	Purchase of services	<b>409,735.99</b>	353,377.80
Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	Purchase of services	–	1,409,284.00

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (61) RELATED PARTIES AND RELATED PARTY TRANSACTIONS *(Continued)*

### 2. Information on related party transactions *(Continued)*

#### (a) *Related party transactions on purchase or sales of goods and provision or acceptance of services (Continued)*

*Sales of goods/services*

Related party	Content of related party transactions	RMB	
		Half-year ended 30 June 2022	2021
Fudan University	Sales of services (note)	46,226.42	2,075,471.69
Shanghai Fudan Communication Company Limited	Sales of goods (note)	80,789,693.88	51,782,155.73
Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	Sales of goods	30,042.45	30,280.08
Spear Innovations Oy Ltd	Sales of goods	832,915.97	–

Note:

The independent non-executive directors of the Company have reviewed the connected transactions set out above and have confirmed that these connected transactions were entered into (i) in the ordinary and usual course of business of the Group; (ii) on normal commercial terms or on terms no less favourable to the Group than terms available to independent third parties; and (iii) in accordance with the relevant agreements governing them on terms that are fair and reasonable and in the interests of the shareholders of the Company as a whole.

#### (b) *Leases with related parties*

The Company as a lessee:

Name of lessor	Type of leased assets	RMB	
		Half-year ended 30 June 2022	2021
Shanghai Fudan Sci-Tech Park Venture Investment Co., Ltd			
Rental expenses	workplace	268,103.30	536,206.60
Committed finance costs for lease liabilities	workplace	15,584.55	39,597.02

#### (c) *Compensation to key management personnel*

Item	RMB'0,000	
	Half-year ended 30 June 2022	2021
Compensation of key management personnel	1,231.61	981.45

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (61) RELATED PARTIES AND RELATED PARTY TRANSACTIONS *(Continued)*

### 2. Information on related party transactions *(Continued)*

#### (d) Amount due from related parties

##### *Items receivable*

Item	Related party	30 June 2022		31 December 2021	
		Carrying amount	Bad debt provision	Carrying amount	Bad debt provision
Accounts receivable	Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	29,141.18	-	252,080.00	7,562.40
Notes receivable	Shanghai Fudan Communication Co., Ltd.	38,724,168.29	-	50,400,601.93	-
Other receivables	Shanghai Fudan Science Park Co., Ltd.	187,672.30	-	187,672.30	-

##### *Items payable*

Item	Related party	30 June	31 December
		2022	2021
Contract liabilities	Fudan University	23,400.00	23,400.00
Contract liabilities	Shanghai Fudan Communication Co., Ltd.	64,948,393.60	42,566,917.60
Other payables	Shanghai Fudan Science Park Co., Ltd.	466,482.49	211,482.49
Other payables	Fudan University	-	84,800.00

## (62) GENERAL INFORMATION OF SHARE-BASED PAYMENT

### 1. General information of share-based payment

	RMB
Total amount of each equity instrument granted	160,812,000.00
Exercise price and the remaining contractual term of outstanding share options at the end of the period	RMB18 per share; 4.5years

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (62) GENERAL INFORMATION OF SHARE-BASED PAYMENT *(Continued)*

### 2. Equity settled share-based payments

	RMB
Method of determining the fair value as at the grant date	Estimated using the Black-Scholes option pricing model, combined with the terms and conditions of the grant of share options
Determination basis for the number of vesting equity instruments	The Company's financial performance indicators and personal performance indicators are assessed on an annual basis, and the number of incentive objects that achieve the assessment target is the basis for determination
Reasons for significant differences of estimate between the current period and the previous period	Nil
Accumulated amount of equity settled share-based payment recognized into capital reserves	90,468,151.06
Total expenses recognized for share-based payment settled in equity in the current period	73,698,643.14

## (63) MATERIAL COMMITMENTS

	30 June 2022	31 December 2021
Contracted, but not provided for:		
Payment for building	<b>241,019,731.80</b>	241,019,731.80
Payment for equipment and software	<b>103,937,618.83</b>	23,037,540.31
Total capital commitments	<b>344,957,350.63</b>	264,057,272.11

## (64) PROFIT DISTRIBUTION

	RMB
Profit or dividend to be distributed	52,942,630.00
Approved profit or dividend to be distributed	52,942,630.00

The 2021 profit distribution plan was reviewed and approved at the 2021 annual general meeting on 2 June 2022, and a cash dividend of RMB52,942,630.00 (i.e., RMB0.65 for every 10 shares) was distributed to ordinary shares.

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (65) SEGMENT INFORMATION

### 1. Determining basis and accounting policies of reporting segments

For management purposes, the Group is organised into business units based on their products and services and has two reportable segments as follows:

- (1) The design, development and sale of IC chips and products segment (“Design segment”) which produces security and identification IC chips, non-volatile memory, smart meter ASIC chips and FPGA chips and other chips;
- (2) The provision of testing services for IC chips and products segment (“Testing segment”).

Management monitors the results of the Group’s operating segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on reportable segment profit/loss before tax. The segment profit/loss before tax is measured consistently with the Group’s profit/loss of continuing operation.

Intersegment sales and transfers are transacted with reference to the selling prices used for sales made to third parties at the then prevailing market prices.

### 2. Financial information of the reporting segments

Item	Design Segment	Testing Segment	Eliminations	
			among segments	Total
Operating income	1,587,848,018.37	124,231,347.45	23,963,588.60	1,688,115,777.22
Operating costs	547,398,043.99	68,209,388.52	23,963,588.60	591,643,843.91
Total assets	4,411,052,122.15	575,779,554.31	10,111,102.68	4,976,720,573.78
Total liabilities	960,849,816.04	95,105,886.66	10,111,102.68	1,045,844,600.02

## (66) NOTES TO THE MAIN ITEMS IN THE FINANCIAL STATEMENTS OF THE PARENT COMPANY

### 1. Accounts receivable

(a) An ageing analysis based on the invoice date is as follows:

Ageing	RMB 30 June 2022
Within 1 year	679,856,711.99
1 to 2 years	51,358,157.25
2 to 3 years	9,105,030.60
3 to 4 years	7,833,255.65
4 to 5 years	9,002,455.82
Over 5 years	6,994,489.59
Total	764,150,100.90

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (66) NOTES TO THE MAIN ITEMS IN THE FINANCIAL STATEMENTS OF THE PARENT COMPANY (Continued)

### 1. Accounts receivable (Continued)

#### (b) Disclosure under the methods of provision for bad debts by category

Type	30 June 2022					31 December 2021					RMB
	Book balance		Bad debt provision		Carrying amounts	Book balance		Bad debt provision		Carrying amounts	
	Percentage		Percentage			Percentage		Percentage			
	Amount	(%)	Amount	(%)	Amount	(%)	Amount	(%)			
Provision of bad debts											
by combinations	764,150,100.90	100.00	20,356,885.68	2.66	743,793,215.22	461,371,152.49	100.00	15,286,960.24	3.31	446,084,192.25	
Which:											
Highly Reliable Product											
Sales Portfolio	306,300,965.79	40.08	7,199,262.00	2.35	299,101,703.79	220,338,215.38	47.76	5,120,433.25	3.32	215,217,782.13	
Industrial Sales											
Portfolio	457,849,135.11	59.92	13,157,623.68	2.87	444,691,511.43	204,013,262.63	44.22	10,166,526.99	4.98	193,846,735.64	
Related party portfolio											
in the scope of consolidation	-	-	-	-	-	37,019,674.48	8.02	-	-	37,019,674.48	
Total	764,150,100.90		20,356,885.68		743,793,215.22	461,371,152.49		15,286,960.24		446,084,192.25	

Bad debt provision by combinations:

Combinations basis: credit risk

Item	30 June 2022			RMB
	Accounts receivable	Bad debt provision	Provision ratio (%)	
Highly Reliable Product				
Sales Portfolio	306,300,965.79	7,199,262.00	2.35	
Industrial Sales Portfolio	457,849,135.11	13,157,623.68	2.87	
Total	764,150,100.90	20,356,885.68	2.66	

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (66) NOTES TO THE MAIN ITEMS IN THE FINANCIAL STATEMENTS OF THE PARENT COMPANY (Continued)

### 1. Accounts receivable (Continued)

#### (c) Bad debt provision

Category	31 December 2021	Provision	Change for the Period			30 June 2022
			Recovered or reversed	Write-off or cancellation	Other changes	
Bad debt provision on combinations basis	15,286,960.24	5,069,925.44	-	-	-	20,356,885.68
<b>Total</b>	<b>15,286,960.24</b>	<b>5,069,925.44</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20,356,885.68</b>

#### (d) Five largest accounts receivable by debtors at the end of the period

Name of entity	Book balance	Percentage to accounts receivables balance (%)	Bad debt provision
First	142,074,000.00	18.59	-
Second	111,616,500.00	14.61	-
Third	45,759,007.90	5.99	-
Forth	40,733,780.00	5.33	477,630.00
Fifth	24,678,110.00	3.23	1,134,336.00
<b>Sub-total</b>	<b>364,861,397.90</b>	<b>47.75</b>	<b>1,611,966.00</b>

### 2. Other receivables

Item	30 June 2022	31 December 2021
Other receivables	3,093,674.17	3,115,175.04
<b>Total</b>	<b>3,093,674.17</b>	<b>3,115,175.04</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (66) NOTES TO THE MAIN ITEMS IN THE FINANCIAL STATEMENTS OF THE PARENT COMPANY *(Continued)*

### 2. Other receivables *(Continued)*

#### (a) Disclosure by ageing

Ageing	RMB 30 June 2022
Within 1 year	1,062,645.80
1-2 years	574,245.48
2-3 years	321,912.30
Over 3 years	1,134,870.59
<b>Total</b>	<b>3,093,674.17</b>

#### (b) Classified by the nature

Nature	30 June 2022	31 December 2021
Deposit margin	1,959,646.05	1,921,965.15
Others	1,065,506.17	1,119,687.94
Reserve funds	68,521.95	73,521.95
<b>Total</b>	<b>3,093,674.17</b>	3,115,175.04

#### (c) Five largest other receivables by debtors at the end of the period

Name of entity	Nature	30 June 2022	Ageing	Percentage in the balance of other receivables (%)	Closing balance of bad debt provision
First	Rental deposit	737,117.50	1-2 years Within 1 year, 1-2	23.83	-
Second	Receivables	540,000.00	years	17.45	-
Third	Rental deposit	252,525.90	1-2 years	8.16	-
Forth	Deposit margin	226,800.00	1-2 years	7.33	-
Fifth	Deposit margin	200,000.00	Over than 3 years	6.46	-
<b>Total</b>		<b>1,956,443.40</b>		63.23	-

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (66) NOTES TO THE MAIN ITEMS IN THE FINANCIAL STATEMENTS OF THE PARENT COMPANY (Continued)

### 3. Long-term equity investments

Item	Book balance	30 June 2022		31 December 2021		RMB Carrying amounts
		Provision for impairment	Carrying amounts	Book balance	Provision for impairment	
Investments in subsidiaries	80,409,607.13	10,000,000.00	70,409,607.13	80,409,607.13	10,000,000.00	70,409,607.13
Investments in associates and joint ventures	46,710,808.79	-	46,710,808.79	49,836,013.86	-	49,836,013.86
<b>Total</b>	<b>127,120,415.92</b>	<b>10,000,000.00</b>	<b>117,120,415.92</b>	<b>130,245,620.99</b>	<b>10,000,000.00</b>	<b>120,245,620.99</b>

#### (a) Investments in subsidiaries

Investee	31 December 2021	30 June 2022	RMB
			Balance of provision for impairment as at 30 June 2022
Sino IC Technology Co., Ltd.	25,146,906.64	<b>25,146,906.64</b>	-
Shanghai Fudan Microelectronics (Hong Kong) Limited	40,262,700.49	<b>40,262,700.49</b>	-
Shenzhen Fudan Microelectronics Company Limited	5,000,000.00	<b>5,000,000.00</b>	-
Beijing Fudan Microelectronics Technology Co., Ltd.	10,000,000.00	<b>10,000,000.00</b>	<b>10,000,000.00</b>
<b>Total</b>	<b>80,409,607.13</b>	<b>80,409,607.13</b>	<b>10,000,000.00</b>

#### (b) Investment in associates and joint ventures

Investee	At 31 December 2021	Increase or decrease during the period Investment profit or loss recognized with the equity method	RMB
			30 June 2022
<b>Associates</b>			
Shanghai West Hongqiao Navigation Technology Co., Ltd.	2,587,918.24	(132,253.46)	<b>2,455,664.78</b>
Shanghai Fukong Hualong Microsystem Technology Co., Ltd.	20,287,006.87	(2,477,055.62)	<b>17,809,951.25</b>
Shanghai Fudan Sci-Tech Park Venture Investment Co., Ltd	17,065,710.31	(269,839.83)	<b>16,795,870.48</b>
Shanghai Haojun Venture Capital Partnership (Limited Partnership)	9,895,378.44	(246,056.16)	<b>9,649,322.28</b>
<b>Total</b>	<b>49,836,013.86</b>	<b>(3,125,205.07)</b>	<b>46,710,808.79</b>

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (66) NOTES TO THE MAIN ITEMS IN THE FINANCIAL STATEMENTS OF THE PARENT COMPANY (Continued)

### 4. Operating income and operating costs

#### (a) Operating income and operating costs

Item	Half-year ended 30 June				RMB
	2022		2021		
	Revenue	Cost	Revenue	Cost	
Main business	<b>1,585,678,041.88</b>	<b>544,898,134.71</b>	998,450,388.98	464,470,702.49	
Others business	<b>14,217,577.64</b>	<b>4,227,619.77</b>	12,519,034.51	3,118,969.82	
<b>Total</b>	<b>1,599,895,619.52</b>	<b>549,125,754.48</b>	1,010,969,423.49	467,589,672.31	

#### (b) Operating income generated from contracts

Contract classification	Design and sales of integrated circuits		RMB
			Total
Types of products			
Security and Identification IC Chips	460,550,289.15		460,550,289.15
Non-volatile Memory	485,439,773.65		485,439,773.65
Smart meter chip	275,553,793.34		275,553,793.34
FPGA and other chips	378,351,763.38		378,351,763.38
Place of business			
PRC	1,513,322,122.17		1,513,322,122.17
Others	86,573,497.35		86,573,497.35
Sort by time of products transfer			
Revenue recognised at a certain point of time			
Sales of products	1,599,895,619.52		1,599,895,619.52
<b>Total</b>	<b>1,599,895,619.52</b>		<b>1,599,895,619.52</b>

The information related to the performance obligations of the Company is as follows:

#### Sale of products

Fulfill performance obligations when delivering products to customers. Usually, the payment obligation is performed after the customer signs for the products, and the Company gives different credit arrangements to different customers.

#### (c) Investment income/(loss)

Item	Half-year ended 30 June		RMB
	2022	2021	
Loss on long-term equity investments accounted with the equity method	<b>(3,125,205.07)</b>		(2,500,004.75)
Investment income on financial assets held for trading	<b>3,920,357.05</b>		-
<b>Total</b>	<b>795,151.98</b>		(2,500,004.75)

# Notes to Financial Statements

For the half-year ended 30 June 2022

## (66) NOTES TO THE MAIN ITEMS IN THE FINANCIAL STATEMENTS OF THE PARENT COMPANY *(Continued)*

### 5. Supplementary information

#### (a) *Statement of non-recurring gains and losses for the period*

Item	RMB Amount
Loss from disposal of non-current assets	(4,605.35)
Government grants recognized in profit or loss of the period (except for government grants which are closely related to the Company's operations, and granted in a fixed amount or quantity in conformity with the common standards of the State)	6,044,378.50
Except for the effective hedging business related to the normal operation of the Company, the fair value changes arising from the holding of financial assets held for trading, derivative financial assets, financial liabilities held for trading, and derivative financial liabilities, and the disposal of financial assets held for trading, derivative financial investment income from assets, financial liabilities held for trading, derivative financial liabilities and other debt investments	4,959,998.15
Non-operating income and expense other than the above-mentioned	21,222.51
Other profit/loss items conforming to definition of the non-recurring gains and losses	2,657,656.65
Affected amount of income tax	(548,915.95)
Affected amount of minority interest (net of tax)	(1,546,241.33)
<b>Total</b>	<b>11,583,493.18</b>

#### (b) *Net return rate of assets and earnings per share*

Profit generated during the Reporting Period	Weighted average net return rate of assets (%)	Earnings per share		RMB
		Basic earnings per share	Diluted earnings per share	
Net profit attributable to ordinary shareholders of the Company	15.57	0.65		0.65
Net profit attributable to ordinary shareholders of the Company, net of non-recurring gains and losses	15.23	0.64		0.63

# Other Information

## EVENT AFTER THE REPORTING DATE

There is no significant subsequent event after the reporting date.

## CONTINGENT LIABILITIES

As at 30 June 2022, the Group has no contingent that need to be disclosed (2021: Nil).

## CHANGES IN DIRECTOR

- a) Mr. Guo Li has resigned as the independent non-executive director on 2 June 2022.
- b) Ms. Zou Fuwen has been appointed as the independent non-executive director on 2 June 2022.

## CHANGES IN COMPOSITION OF BOARD COMMITTEES

- a) Ms. Zou Fuwen, an independent non-executive director, has been appointed as the member of the nomination committee and the remuneration and evaluation committee of the Board, effective on 2 June 2022.
- b) Mr. Cao Zhongyong, an independent non-executive director, has been appointed as the member of the audit committee of the Board, effective on 2 June 2022.

## CHANGE IN INFORMATION OF DIRECTORS DISCLOSED PURSUANT TO LISTING RULES 13.51B(1)

Pursuant to Rule 13.51B(1) of the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (the “Listing Rules”), the changes in information of directors and supervisors since the Company’s 2021 Annual Report and the Company’s announcement dated 2 June 2022 in respect of the change of directors, other than the changes disclosed in other paragraphs of this report, are set out below:

Director	Change
Mr. Jiang Guoxing	For each year of the three-year term mandate since 3 June 2022, a fixed remuneration of RMB600,000 will be charged.
Mr. Shi Lei	For each year of the three-year term mandate since 3 June 2022, a fixed remuneration of RMB3,050,000 will be charged.
Mr. Yu Jun	For each year of the three-year term mandate since 3 June 2022, a fixed remuneration of RMB2,280,000 will be charged.
Ms. Cheng Junxia	For each year of the three-year term mandate since 3 June 2022, a fixed remuneration of RMB1,100,000 will be charged.
Ms. Zhang Qianling	For each year of the three-year term mandate since 3 June 2022, provide service to the Company free of charge.
Mr. Wu Ping	For each year of the three-year term mandate since 3 June 2022, provide service to the Company free of charge.
Ms. Liu Huayan	For each year of the three-year term mandate since 3 June 2022, provide service to the Company free of charge.
Mr. Sun Zheng	For each year of the three-year term mandate since 3 June 2022, provide service to the Company free of charge.

## Other Information

Mr. Cao Zhongyong	For each year of the three-year term mandate since 3 June 2022, a fixed remuneration of RMB200,000 will be charged.
Mr. Cai Minyong	For each year of the three-year term mandate since 3 June 2022. Mr. Cai Minyong did not receive remuneration during the Reporting Period.
Mr. Wang Pin	For each year of the three-year term mandate since 3 June 2022, a fixed remuneration of RMB200,000 will be charged.
Ms. Zou Fuwen	For each year of the three-year term mandate since 2 June 2022, a fixed remuneration of RMB200,000 will be charged.

Supervisor	Change
Ms. Zhang Yanfeng	For each year of the three-year term mandate since 3 June 2022, provide supervisor service to the Company free of charge and will receive remuneration for the management position in the Company according to the performance.
Mr. Ren Junyan	For each year of the three-year term mandate since 3 June 2022, a fixed remuneration of RMB200,000 will be charged.
Ms. Tang Xiaojie	For each year of the three-year term mandate since 3 June 2022, provide service to the Company free of charge.

### INTERIM DIVIDEND

The Board does not recommend the payment of an interim dividend for the half-year ended 30 June 2022 (2021: nil).

### SIGNIFICANT INVESTMENT, MATERIAL ACQUISITIONS OR DISPOSALS OF SUBSIDIARIES AND AFFILIATED COMPANIES

There was no significant investment and material acquisition or disposal of subsidiaries and affiliated companies during the six months ended 30 June 2022.

### PLEDGE OF ASSETS

As at 30 June 2022, the Group did not have any pledge of assets (2021: fixed assets with carrying amounts RMB178,037,972.67 were pledged for the securities of bank borrowings).

### CAPITAL MANAGEMENT

The key objective of the Group's capital management is to ensure the Group's ability to operate on a going concern basis and maintain healthy capital ratios so as to support business growth and maximise shareholder value.

The Group manages its capital structure and makes adjustments in response to changes in economic conditions and risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Group may adjust the distribution of profits to shareholders, return capital to shareholders or issue new shares. The Group is not constrained by any external mandatory requirements on capital. There was no change in the Group's capital management objectives, policies or procedures from January to June of 2022 and year 2021.

The Group manages its capital with the gearing ratio. The gearing ratio of the Group, which is the total liabilities divided by the total liabilities and owner's equity as at 30 June 2022 is approximately 21.01% (2021: 19.16%).

As at 30 June 2022, the Group did not have any bank borrowings (2021: RMB49,955,540.83).

# Other Information

## FINANCIAL RESOURCES AND LIQUIDITY

As at 30 June 2022, net assets of the Group amounted to RMB3,930,875,973.77 (2021: RMB3,366,902,546.50), representing an increase of approximately 16.8% over last year; of which current assets amounted to RMB3,588,292,255.62 (2021: RMB3,041,662,776.16), representing an increase of approximately 18.0% over last year; of which cash at bank and on hand amounted to RMB853,362,710.92 (2021: RMB801,647,230.19), representing an increase of approximately 6.5% over last year.

The Group kept profiting for the past years, and profit, placement of shares and internal cash flows generated have been used to meet the operations and business development needs. The Company has completed the issuance of A shares in 2021 with additional funds raised for the Group and with the Group's adoption of a cautious monetary policy which is sufficient to cope with daily operation and future development. The Group does not use any financial instruments for hedging purposes and does not have foreign currency net investments hedged by currency borrowings and other hedging instruments.

The capital structure of the Group consists of equity attributable to owners of the Company, comprising issued share capital and various reserves.

## 2021 A SHARES SHARE OPTION INCENTIVE SCHEME

The Company implemented the 2021 Restricted Share Incentive Scheme (the "Scheme") on 6 December 2021 (the "Grant Date") for the purpose of motivating and rewarding persons who contribute to the operations of the Group. Eligible persons include those persons, other than directors and senior management, whom the Board of Directors considers to be in need of incentives. The Scheme is valid for a maximum period of 60 months from the date of grant of the restricted shares to the date when all the restricted shares granted to the incentive recipients vest or lapse.

The total number of underlying shares involved in this Scheme during the entire validity period does not exceed 20.00% of shares of the Company in aggregate at the time of submitting this scheme to the shareholders' meeting. The cumulative number of shares of the Company granted to any one incentive recipient under this Scheme during the entire validity period does not exceed 1.00% of the total number of shares of the Company.

The grant price of the restricted shares under the first grant is RMB18.00 per Share, i.e., the incentive recipients who have satisfied the conditions of grant and conditions of vesting can subscribe for the restricted shares to be issued by the Company to them at the price of RMB18.00 per A Share. The pricing method for the restricted shares grant price under the Scheme is self-pricing.

The Company did not grant any restricted share during the Reporting Period (2021: Nil), of which the Group recognized share option expenses of RMB73,496,110.30 in the Reporting Period (2021: Nil).

### Movements of restricted shares for the Reporting Period

Number of restricted shares issued at the beginning of the period	8,934,000
Number of restricted shares granted during the Reporting Period	–
Number of restricted shares exercised during the Reporting Period	–
Number of restricted shares expired during the Reporting Period	(184,000)
<hr/>	
Number of restricted shares issued and outstanding at the end of the Reporting Period	8,750,000

## Other Information

The Scheme is valid for five years from the date of grant of the restricted shares. The granted restricted shares will be exercised in four batches of 25%, 25%, 25% and 25% of the exercise ratio from the date of grant, after a 12-month exercise restriction period, provided that the exercise conditions are met, and the incentive recipients can exercise the restricted shares during the exercise period in accordance with the exercise price determined in the Scheme.

As at 30 June 2022, the Company had 8,750,000 restricted shares issued and outstanding under the Scheme. Based on the capital structure of the Company, if all the restricted shares issued and outstanding are exercised, 8,750,000 additional ordinary shares of the Company will be issued, increasing the share capital by RMB875,000.00 and the share premium by RMB156,625,000.00 of the Company (before deduction of issue expenses).

### **FUTURE PLANS FOR MATERIAL INVESTMENTS OR CAPITAL ASSETS**

According to the circular dated 18 April 2019 of the Company, concerning (of which included) the proposal of A share offering, and the circular dated 28 August 2020, concerning (of which included) proposal of amendment to the fund raising amount and investing in the projects with proceeds from initial public offering of A shares. The Company has completed the issuance of A shares on 29 July 2021. Up to 30 June 2022, the Company made use of RMB486,319,527.59 according to the schedule to invest in research and development of programmable system on-chip and to industrialize projects and as reserve fund for development and technology. The remaining unutilized RMB200,918,842.34 balance from fund raising will be gradually applied to the relevant projects.

Save as mentioned above, there was no other specific plan for material investments or capital assets as at 30 June 2022.

### **HUMAN RESOURCES**

As at 30 June 2022, the Group had a total of 1596 employees (31 December 2021: 1531). The employee remunerations (included directors' emoluments) were RMB403,174,999.47 for the 6 months ended 30 June 2022 (2021: RMB320,078,809.40). The remuneration package of the employees is determined by various factors such as their working experience and job performance, the market condition, industry practice and applicable employment law. Year-end bonus based on job performance will be paid to employees as recognition of and reward for their contributions.

### **INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES OF DIRECTORS AND SUPERVISORS AND CHIEF EXECUTIVE**

At 30 June 2022, the interests or short positions of the directors and supervisors and chief executive of the Company in the share capital and underlying shares and debentures of the Company or any of its associated corporations (within the meaning of Part XV of the Securities and Futures Ordinance (the "SFO")) as recorded in the register required to be kept by the Company pursuant to Section 352 of the SFO; or as otherwise notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by directors of Listed Issuers, were as follows:

## Other Information

Long positions in A shares of the Company:

	<u>Number of issued shares held, capacity and nature of interest</u>				Percentage of the Company's issued share capital
	Directly beneficially owned	Through spouse or minor children	Through controlled corporation	Total	
<b>Directors</b>					
Mr. Jiang Guoxing	8,810,000*	–	–	8,810,000	1.08
Mr. Shi Lei	8,810,000*	300,000	–	9,110,000	1.12
Mr. Yu Jun	1,400,000*	–	–	1,400,000	0.17
Ms. Cheng Junxia	700,000*	–	–	700,000	0.09
	19,720,000	300,000	–	20,020,000	
<b>Supervisor</b>					
Ms. Zhang Yanfeng	700,000*	–	294,000	994,000	0.12

\* Pursuant to the Strategic Allotment under the A Share Offering passed in the extraordinary general meeting held on 5 July 2021, through the arrangement by the manager under a special assets management plan and in which, Mr. Jiang Guoxing holds 1,600,000 shares, Mr. Shi Lei holds 1,600,000 shares, Mr. Yu Jun holds 1,400,000 shares, Ms. Cheng Junxia holds 700,000 shares and Ms. Zhang Yanfeng holds 700,000 shares.

Long positions in H shares of the Company:

	<u>Number of issued shares held, capacity and nature of interest</u>				Percentage of the Company's issued share capital
	Directly beneficially owned	Through spouse or minor children	Through controlled corporation	Total	
<b>Supervisor</b>					
Ms. Zhang Yanfeng	–	188,000	–	188,000	0.02

Save as disclosed above, as at 30 June 2022, none of the directors and supervisors and chief executive had or was deemed to have any interests or short positions in the Shares, underlying shares or debentures of the Company and its associated corporations (within the meaning of Part XV of the SFO) (i) which were required to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO (including interests or short positions which they were taken or deemed to have under such provisions of the SFO); or (ii) which were required to be entered in the register referred to therein pursuant to section 352 of the SFO; or (iii) which were required to be notified to the Company and the Stock Exchange pursuant to the Model Code for Securities Transactions by directors of Listed Companies contained in the Listing Rules.

# Other Information

## DIRECTORS' RIGHTS TO ACQUIRE SHARES OR DEBENTURES

At no time during the period were rights to acquire benefits by means of the acquisition of shares in or debentures of the Company granted to any director or their respective spouse or minor children, or were any such rights exercised by them; or was the Company, or any of its subsidiaries a party to any arrangement to enable the directors to acquire such rights in any other body corporate.

## INTERESTS AND SHORT POSITIONS IN SHARES AND UNDERLYING SHARES OF SUBSTANTIAL SHAREHOLDERS AND OTHER PERSONS

At 30 June 2022, the following interests of 5% or more of the issued share capital of the Company were recorded in the register of interests required to be kept by the Company pursuant to Section 336 of the SFO:

Long positions in shares of the Company:

Name of shareholders	Note	Capacity and nature of interest	Number of Ordinary shares held	Class of shares	Percentage of shareholding on relevant class of shares	Percentage of the Company's issued share capital
Shanghai Fudan Fukong Technology Enterprise Holdings Limited ("Fudan Fukong")	(1)	Beneficially owned	109,620,000	A shares	20.68	13.46
Shanghai Commerce and Invest (Group) Corporation ("SCI")	(1)	Interest of corporation controlled	109,620,000	A shares	20.68	13.46
Bailian Group Company Limited ("Bailian Group")	(1)	Interest of corporation controlled	109,620,000	A shares	20.68	13.46
Shanghai Fudan Fangao IC Technology Co. Ltd. ("Fuxin Fangao")	(2)	Beneficially owned	106,730,000	A shares	20.13	13.10
Shanghai Fudan Asset Management Co., Ltd. ("Fudan Asset")	(2)	Interest of corporation controlled	106,730,000	A shares	20.13	13.10
Fudan University	(2)	Interest of corporation controlled	106,730,000	A shares	20.13	13.10
Shanghai Yikun Investment Consultant Partnership Enterprise ("Shanghai Yikun")	(3)	Interest of corporation controlled	66,845,110	A shares	12.61	8.21
Zhang Yong	(3)	Interest of corporation controlled	66,845,110	A shares	12.61	8.21
Shanghai Zhengben Corporate Management Consultant Partnership Enterprise (limited partnership) ("Shanghai Zhengben")	(3)	Beneficially owned	52,167,270	A shares	9.84	6.40
Shanghai Zhenghua Corporate Management Consultant Partnership Enterprise (limited partnership) ("Shanghai Zhenghua")	(4)	Beneficially owned	34,650,000	A shares	6.54	4.25
Shanghai Shanyao Industrial Limited ("Shanghai Shanyao")	(4)	Interest of corporation controlled	34,650,000	A shares	6.54	4.25
Zhou Yufeng	(4)	Interest of corporation controlled	34,650,000	A shares	6.54	4.25
Shanghai Guonian Corporate Management Consultant Partnership Enterprise (limited partnership) ("Shanghai Guonian")	(5)	Beneficially owned	29,941,470	A shares	5.65	3.68
Shanghai Danruo Investment Management Partnership Enterprise ("Shanghai Danruo")	(5)	Interest of corporation controlled	29,941,470	A shares	5.65	3.68
Dazi Country Dingcheng Capital Investment Limited ("Dingcheng Capital")	(5)	Interest of corporation controlled	29,941,470	A shares	5.65	3.68

## Other Information

Name of shareholders	Note	Capacity and nature of interest	Number of Ordinary shares held	Class of shares	Percentage of shareholding on relevant class of shares	Percentage of the Company's issued share capital
Beijing Zhongrong Dingxin Investment Management Limited ("Zhongrong Dingxin")	(5)	Interest of corporation controlled	29,941,470	A shares	5.65	3.68
Zhongrong International Trust Limited ("Zhongrong International")	(5)	Interest of corporation controlled	29,941,470	A shares	5.65	3.68
Jingwei Textile Machinery Co., Ltd. ("Jingwei Textile")	(5)	Interest of corporation controlled	29,941,470	A shares	5.65	3.68
Tenbagger Capital Management Co., Ltd.		Investment manager	22,964,000	H shares	8.08	2.82
Springs China Opportunities Master Fund ("Springs China")	(6)	Beneficially owned	16,202,000	H shares	5.70	1.99
Springs Capital Limited	(6)	Interest of corporation controlled	16,202,000	H shares	5.70	1.99
Zhao Jun	(6)	Interest of corporation controlled	16,202,000	H shares	5.70	1.99

### Notes:

- (1) Bailian Group is a state-owned enterprise wholly owned by the Shanghai Municipal Government and wholly owned SCI, and SCI held 70.2% of the equity interest of Fudan Fukong. Accordingly, each of SCI and Bailian Group is deemed to be interested in Fudan Fukong's interest in the Company.
- (2) Fuxin Fangao is a state-owned enterprise wholly owned by Fudan Asset and Fudan Asset is wholly owned by Fudan University.
- (3) Zhang Yong held 95% of the equity interest in Shanghai Yikun, and Shanghai Yikun held 99.81% of the equity interest in Shanghai Zhengben. Accordingly, each of Shanghai Yikun and Zhang Yong is deemed to be interested in Shanghai Zhengben's interest in the Company. Shanghai Yikun and Zhang Yong further held the Company's interest through another controlled corporation.
- (4) Zhou Yufeng held 99% of the equity interest in Shanghai Shanyao, and Shanghai Shanyao held 99.79% of the equity interest in Shanghai Zhenghua. Accordingly, each of Shanghai Shanyao and Zhou Yufeng is deemed to be interested in Shanghai Zhenghua's interest in the Company.
- (5) Jingwei Textile holds 37.47% of the equity interest in Zhongrong International, Zhongrong International holds the entire equity interest in Zhongrong Dingxin, Zhongrong Dingxin holds the entire equity interest in Dingcheng Capital, Zhongrong Dingxin and Dingcheng Capital holds 99.9% and 0.01% respectively of the equity interest in Shanghai Danruo and Dingcheng Capital is the general partner thereof. Shanghai Danruo and Dingcheng holds 72.69% and 0.33% of the equity interest in Shanghai Guonian, respectively. Accordingly, each of Shanghai Danruo, Dingcheng Capital, Zhongrong Dingxin, Zhongrong International, Jingwei Textile is deemed to be interested in Shanghai Guonian's interest in the Company.
- (6) Spring China is beneficially owned by Spring Capital Limited, which is beneficially owned by Zhao Jun. Accordingly, each of Spring Capital Limited and Zhao Jun is deemed to be interested in Spring China's interest in the Company.

Save as disclosed above, as at 30 June 2022, no person, other than the directors and supervisors of the Company, whose interests are set out in the section headed "Interests and short positions in shares and underlying shares of directors and supervisors and chief executive" above, had registered an interest or short position in the shares or underlying shares of the Company that was required to be recorded pursuant to section 336 of the SFO.

### DIRECTORS' INTERESTS IN A COMPETING BUSINESS

During the half-year ended 30 June 2022, none of the directors of the Company had an interest in a business which competes or is likely to compete, either directly or indirectly, with the businesses of the Group, as defined in the Listing Rules.

# Other Information

## CORPORATE GOVERNANCE

In the opinion of the directors, the Company has complied with the code provisions set out in the Corporate Governance Code contained in Appendix 14 of the Listing Rules throughout the half-year ended 30 June 2022.

## AUDIT COMMITTEE

The Company has an audit committee which was established with written terms of reference in compliance with the Listing Rules and Corporate Governance Code and Corporate Governance Report as set out in Appendix 14 of the Listing Rules. The primary duties of the audit committee are to review and supervise the financial reporting process and internal control system of the Group. At the date of this report, the audit committee comprises three independent non-executive directors Mr. Cao Zhongyong, Mr. Cai Minyong and Mr. Wang Pin. The Group's unaudited financial statements for the half-year ended 30 June 2022 have been reviewed by the committee, who were of the opinion that such statements complied with the applicable accounting standards, the Listing Rules and legal requirements, and that adequate disclosures had been made.

## CODE OF CONDUCT REGARDING SECURITIES TRANSACTIONS BY DIRECTORS

The Company has adopted a code of conduct on terms no less exacting than the model code for securities transactions by directors of listed issuers as set out in Appendix 10 of the Listing Rules. Having made specific enquiry to all directors, the directors have complied with such code of conduct and the required standard of dealings throughout the half-year ended 30 June 2022.

## PURCHASE, SALE OR REDEMPTION OF THE COMPANY'S LISTED SECURITIES

During the half-year ended 30 June 2022, neither the Company, nor any of its subsidiaries purchased, redeemed or sold any of the Company's listed securities.

## APPROVAL OF THE FINANCIAL STATEMENTS

These financial statements had been approved by the fourth meeting of the ninth session of the Board on 15 August 2022 for publication.

By order of the Board  
**Shanghai Fudan Microelectronics Group Company Limited\***  
*Chairman*  
**Jiang Guoxing**

Shanghai, the PRC, 15 August 2022

*As at the date of this report, the Company's executive Directors are Mr. Jiang Guoxing, Mr. Shi Lei, Mr. Yu Jun and Ms. Cheng Junxia; non-executive Directors are Ms. Zhang Qianling, Mr. Wu Ping, Ms. Liu Huayan and Mr. Sun Zheng, and independent non-executive Directors are Mr. Cao Zhongyong, Mr. Cai Minyong, Mr. Wang Pin and Ms. Zou Fuwen.*

\* *For identification purposes only*