



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)

2019

ANNUAL REPORT

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Chairman's Statement

Dear Shareholders,

On behalf of the board of directors (the "Board") of Shanghai Fudan Microelectronics Group Company Limited (the "Company"), I am pleased to present the annual report of the Company and its subsidiaries (the "Group") for the year ended 31 December 2019.

Economic slow-down and adjustments in manufacturing production affected globally in 2019. The semiconductor industry faced challenges as the trend of demand for electronic products appeared to be diversified and the prospect of the industry became complicated and variable due to the keen competition in market. The semiconductor industry in the Mainland China started to restructure into a new application field through the recent decade of rapid increase of economic growth. The industry focused on fostering emerging industries including Mobile Internet, Cloud Computing, Big Data and 5G, bringing challenges against the demand for other traditional products and also new opportunities.

Despite the slower growth of the semiconductor industry around the world and the decline of GDP growth of China in 2019, the overall sales revenue for the year 31 December 2019 of the Group still recorded an increase as compared to last year. The selling price of products were subject to impact due to keen competition in market, and also the inventories were needed to be adjusted upon the realizable value, resulting in a decrease in gross margin. In the meantime, the Group has been actively putting resources on research and development projects in recent years, and therefore the amortization of intangible assets significantly increased during the year and as a result, the business performance recorded a loss for the year ended 31 December 2019. Having considered the continuous investment on research and development as well as the possible obstacles in the adversity that the Group might have to face in 2020, the Board does not recommend the payment of final dividend for 2019.

The resolution regarding the proposal of A Share Offering was passed at the extraordinary general meeting which was held on 3 June 2019 while the relating process is still ongoing. As the preparation of financial information and reporting documentary are rather complicated and time-consuming, the Board will propose resolutions to obtain approval from the shareholders in the upcoming annual general meeting in order to extend the validity period of the resolutions regarding the proposed A Share Offering and the authorisation granted to the Board to handle all matters relating to the initial public offering and listing of A Shares.

Looking forward into 2020 that the whole world has been suffering from the novel coronavirus while the number of infection cases endlessly increase, leading countries to adopt stringent measures to prevent transmission of infection. It poses a devastating impact to global business industries due to this severe epidemic, causing an economic downturn as well as the gradual occurrence of recession. The Directors believe that the global multilateral trade frictions may remain over a certain period of time, and then the novel coronavirus causes an unfavorable influence to the world, yet both of these problems cannot be eliminated shortly, and therefore the Directors maintain an attitude of cautious in the respect of the business prospect in 2020. The Group will adopt relevant measures to strictly control over business, credit and different types of risk, expecting challenges and great pressure from business during the year. The Directors consider that focusing on core business and the continuous development investment are the keys of maintaining competitiveness in the electronic industry. With the constant investment on research and development as well as the accumulation of experience and professional techniques, the Directors hope to smoothly pass the difficult days during the economic downturn.

Taking this opportunity, the Board wishes to thank the management and all staff of the Group for their dedication and relentless efforts during the unfavorable economic condition and the epidemic, and extend its gratitude to the Company's shareholders and business partners for their valuable support and trust in the long term.

Jiang Guoxing
Chairman

Shanghai, the PRC, 25 March 2020

Management Discussion and Analysis

BUSINESS REVIEW

In the year, the principal activities of the Group remained design, development and sales of specific application integrated circuit product and provision of testing services. The Group has more than 20 years of business development, creating a series of diversified products including security and identification IC chips, smart meters ASIC chips, non-volatile memory chips, smart electrical appliances, other specified chips and application solutions. The products are applied in a wide variety of fields such as sectors in business and society, and mainly include city one-cards, financial IC cards, social security and citizen cards, smart meters, electronic payment, memory chips and Internet of Things and maintain a leading position in the industry.

The Group's overall revenue for this year recorded an increase by approximately 3.2% compared to the previous year, of which the sales for non-volatile memory chips recorded a slight decrease while other series of products recorded different levels of growth. Two categories of products namely security and identification IC chips and non-volatile memory chips which accounted for a relative high proportion in sales of the Group faced a keen market competition, resulting in a dramatic decrease in price. Inventories also substantially depreciated due to change in market and price, which led to a decline in the overall gross margin from 45.6% of the last year to 35.5%.

The Group's business performance by product category during the year was as follows:

Security and Identification IC Chips

For the year ended 31 December 2019, sales of security and identification chips recorded a slight increase of around 1.9% with gross margin decreased by approximately 10.7% compared to last year. The sales of products recorded a remarkable growth, however the market prices of smart cards and financial IC cards decreased thanks to the demand saturation and extraordinarily keen competition in the market, resulting in a certain degree of decline in gross margin. Some products appeared to be overstocked so as to write-down greatly due to the market change and reduction in price. Products such as contactless RF card chips and contactless logic security chips recorded stable in the market, making a good contribution to the growth of sales.

Non-volatile Memory Chips

The products of this category mainly comprises the EEPROM series, NOR flash memory products and NAND flash memory products. Being affected by the periodic fluctuations in the memory chips industry, the supply of the main series of products appeared to be greater than its demand in the market in the first three seasons but was stabilized in the fourth season. The market price during the year was greatly declined while the risk of stocks was relatively high, resulting in the reduction in price for clearance. The sales decreased by 18.5% compared to last year and the gross margin recorded a decline approximately by 10.8%.

Smart Meter ASIC Chips

The sales of the smart meter ASIC chips for the year significantly increased by approximately 70.4%. During the year, the bid rate of State Grid Corporation of China was 60% while the market share of China Southern Power Grid Company Limited was over 60% which helped with the maintenance of market share and the leading position in the market. Because of keen market competition, the profit margin was dropped by approximately 9.8% as compared with last year.

Management Discussion and Analysis

BUSINESS REVIEW *(Continued)*

Smart Electrical Appliances

Products of Smart electrical appliances consist of Type AC, Type A of electricity leakage protection chips, Type B electricity leakage protection chips and module, GFCI/ALCI professional control chips, specific chips for detecting malfunction of electric arc and its module, which are widely applied in circuit breakers for low-voltage electrical appliances and home appliances. The sales of this category of products recorded a rise by approximately 6.7% during the year. The main product Type AC electricity leakage protection chips had a remarkable sales result thanks to renewal and change of equipment from customers. Specific product such as Type A electricity leakage protection chips which are applied in new energy of activating charging stations, has entered the emerging market and gradually acquired market shares. The sales of this category of product had a small proportion of the total sales of the Group, making a slight contribution to the Group's business performance.

Other Chips

Other chips include specified products and solutions. The sales of this category of product was approximate to that of last year while the gross margin decreased by 2.3% compared to last year. In last year, the business performance of this category included the business of Fukong Hualong. In current year, the subsidiary Fukong Hualong has turned to be an associate so its business performance was not yet combined, leading to a deviation in comparative figures. Due to great investment of the product industry, high standards of skills and techniques and the special nature of product cycle of these products, causing lower competitiveness yet higher gross margin compared with other products, it helped with the overall business performance of the Group.

IC Testing Services

During the year, the total revenue of the IC testing services which included the services provided within the Group recorded a growth by approximately 11.6% over last year. The income from external customers recorded a growth by approximately 22.5%. Attributable to the rapid development of the IC industry, this segment has established various high-end testing platforms in recent years and fostered the development and application of techniques in new product fields, leading rises of service-testing customers and demands, however market competitions led to a reduction in service charge, eventuating in a decrease in gross margin.

FINANCE REVIEW

For the year ended 31 December 2019, the Group recorded a total revenue of approximately RMB1,454,772,000 (2018: RMB1,409,630,000), representing a slight increase of approximately 3.2% as compared to last year; gross margin decreased from 45.6% of last year to 35.5%. Compared with last year, other income and gains increased approximately by 8.5%, and selling and distribution costs decreased approximately by 1.7% as compared to last year, and administrative expenses and other expenses went up by 25.3% and 36.5% respectively. The impairment of financial assets during the year increased by approximately RMB4,373,000 or 623% as compared to last year. The business performance during the year was changed from profit of last year to loss, which recorded a loss of RMB148,961,000 (2018: profit of RMB129,352,000). The audited loss attributable to owners of the parent was approximately RMB161,936,000 (2018: profit of RMB107,482,000). The loss per share was approximately RMB23.32 cents (2018: earnings per share of RMB16.27 cents). The Board does not recommend the payment of final dividend in respect of the year ended 31 December 2019 (2018: nil).

Management Discussion and Analysis

FINANCE REVIEW *(Continued)*

For the year ended 31 December 2019 under review, the Group recorded an overall sales increase approximately by RMB45,142,000 as compared to last year. Due to keen competition in the main product of security and identification chips as well as the rapid evolution of the market, it led to decline in price and write-down of inventories, which reduced the overall gross profit margin. Other income and gains increased approximately by RMB12,711,000 compared with last year. As one of the shareholders of Fukong Hualong terminated the acting in concert agreement with the Company, and therefore Fukong Hualong was no longer included in the consolidated financial statements of the Group and was accounted for under the equity method. It was deemed as a disposal of subsidiary with an income of RMB24,845,000.

The sales and distribution expenses reduced by approximately RMB1,498,000. Due to the adoption of cost saving solutions by the Group, the expenses slightly decreased as compared to last year. Administrative expenses increased by approximately RMB30,060,000 over last year due to the increase of office space and equipment in line with the growing number of employees, and the growth in employee expenses as a result of the increases in staff members and the salary level in the industry. Other expenses during the year greatly increased by approximately RMB155,488,000, and the research and development costs through profit and loss increased by approximately RMB119,755,000 as compared to last year, while the amortisation of research and development costs also increased by approximately RMB22,390,000.

In respect of taxation, the tax expenses during the year considerably declined approximately by RMB27,411,000 compared to last year as a main result of the credit of deferred tax which recorded RMB1,430,000. Deferred tax relating to impairment of assets, depreciation and amortisation, government grants and temporary differences related to accruals and other payables amounted to approximately RMB24,168,000 was charged to profit and loss in last year.

The Group's non-current assets increased by approximately RMB106,168,000 over last year because of (i) the increase in decoration of new office as well as the acquisition of improvements and equipment; (ii) inclusion of right-of-use of assets under new accounting standards; and (iii) Fukong Hualong was changed from a subsidiary into an associate and there was a new investment in an associate.

Current assets decreased substantially by approximately RMB194,590,000 than last year, where inventories recorded a decline of RMB17,970,000 as compared with last year due to written down and clearance. Trade and bills receivable recorded an increase approximately by RMB81,451,000 as compared with last year due to the delay of debt recovery. There was no prepaid profits tax receivables during the year while the amount in last year was RMB11,264,000. The Group's cash and bank balances substantially decreased by approximately RMB229,940,000.

Current liabilities increased by approximately RMB19,800,000 as compared to last year as a result of the inclusion of liabilities of right-of-use of assets during the year as well as the payable of new investment in an associate.

Non-current liabilities significantly increased by approximately RMB60,932,000 as compared to last year. Long-term lease liability in respect of right-of-use of assets was accounted for during the year and the accumulation of projects which were not being certified yet resulted in the increase in deferred income.

The non-controlling interests decreased by approximately RMB11,144,000 as compared with last year, mainly because Fukong Hualong was changed into an associate from a subsidiary that eliminated the entire equity of non-controlling interests related to that company. Sino IC Technology Co., Ltd. distributed dividends during the year which also led to a decrease in non-controlling interests.

Management Discussion and Analysis

MATERIAL INVESTMENTS AND ACQUISITIONS AND DISPOSALS OF SUBSIDIARIES

In the year, the Company invested RMB20,000,000 in Shanghai Fudan Sci-Tech Park Venture Investment Co., Ltd., for an equity interest of 20% and accounted for as an investment in an associate. This investment project could make better use of the funds of the Group and increase source of income.

Fukong Hualong that the Company held a 38.25% equity interest had a fund raising plan to increase its issued capital during the year, and one of the equity holders which held 25% equity interest has terminated the acting in concert agreement with the Company, and therefore Fukong Hualong was no longer under the unilateral control of the Group. Starting from 1 October 2019, the results of Fukong Hualong was no longer consolidated into the consolidated financial statements of the Group and would be accounted for under equity method.

Save as the above mentioned, the Group had no material investment and there was no acquisition and disposal of subsidiaries during the year.

FUTURE PLANS FOR MATERIAL INVESTMENTS

The Group still focuses on development of its core business and has no material investment plan at present apart from orderly increase in research and development projects.

FINANCIAL RESOURCES AND LIQUIDITY

As at 31 December 2019, net assets of the Group amounted to approximately RMB1,938,286,000 (2018: RMB2,107,440,000), a decrease of approximately 8% over last year; of which current assets amounted to approximately RMB1,717,930,000 (2018: RMB1,912,520,000), a reduction of approximately 10% over last year, and including cash and bank deposits of approximately RMB465,410,000 (2018: RMB695,350,000), a decline of approximately 33.1% over last year.

As the Group keeps profiting for the past years, profit and internal cash flows generated have been used to meet the operations and business development needs. The Company has engaged in the placement of shares in recent years in order to provide additional funds for the Group. Furthermore, the Group has adopted a cautious monetary policy which is sufficient to cope with daily operation and future development.

The net cash outflow from operating activities for the year was approximately RMB12,772,000 (2018: net cash inflow of RMB62,863,000). Cash outflow was substantial mainly because of the increase in trade and bills receivables. The net cash outflows from investing activities was approximately RMB3,843,000 (2018: net cash outflow of RMB258,817,000). Net cash outflows was significantly reduced which caused by the transfer from deposits with maturity over 3 months. The net cash outflows from financing activities amounted to approximately RMB20,616,000 (2018: RMB189,317,000 of net inflow). The cash outflow in current year was mainly due to the principal portion of lease payments accounted for and the payment of dividend to non-controlling interest, and as compared with last year, there was fund raising activity with cash inflow. The total cash and cash equivalents as at the settlement date was approximately RMB268,055,000, (2018: RMB304,878,000) which decreased by approximately RMB36,823,000 while the deposits with maturity over 3 months were greatly decreased as previously mentioned.

As at 31 December 2019, the Group has not pledged any of its assets to any third parties (2018: nil).

Management Discussion and Analysis

CAPITAL STRUCTURE

During the year, the Company made a capital injection of RMB4,000,000 to Beijing Fudan Microelectronics Technology Co., Ltd., a wholly-owned subsidiary of the Company, to increase its issued capital from RMB6,000,000 to RMB10,000,000 so as to strengthen its business expansion capabilities.

Except the above disclosures, there was no other change in the capital structure of the Group in the year.

GEARING RATIO

As at 31 December 2019, the Group's current liabilities amounted to approximately RMB436,956,000 (2018: RMB417,156,000), a rise of approximately 4.7% over last year. Non-current liabilities amounted to approximately RMB83,130,000 (2018: RMB22,198,000), a significant increase of approximately 2.7 times over the previous year. Net asset value per share was approximately RMB2.79 (2018: RMB3.03), a decline of approximately 7.9% over last year. The Group's ratio of current liabilities over current assets was approximately 25.4% (2018: 21.8%), indicating that the Group's short-term debt paying ability was ideal and the asset realisation capacity still remained at a healthy level, and the gearing ratio was approximately 26.8% (2018: 20.8%) on the basis of total liabilities over net assets, indicating that the Group's capital was mainly from shareholders and the credit risk in relation to provision of financing to the Group remained relatively low.

As at 31 December 2019, other than the amount of RMB43,562,000 (2018: nil) of the lease liabilities which was accounted for in other borrowings in accordance with new accounting standards, the Company and the Group had no bank or other borrowings (2018: nil).

PRINCIPAL RISKS AND UNCERTAINTIES

The Directors believe that developing and implementing rigorous risk management practices can efficiently and effectively reduce operational risks. The Board has delegated the responsibilities to relevant departments and will monitor, review and improve the practices from time to time.

The Directors believe that the Group is not exposed to risks associated with business regulations in view that there is no specific legislative control over the design, development and sales of integrated circuit where Group focuses its business on at present, and national policies are all advantageous to the development of the industry. In addition, the Group's business maintained a stable and healthy growth over the years. With the Group's existing customers and suppliers are all long-term partners, and business of the industry is still in the growth phase driven by national policies and huge market demands in most of its products, the Directors believe there will be no uncertainties.

FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's principal financial instruments comprise cash and short term time deposits. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial assets and liabilities such as trade and bills receivables, deposits and other receivables, trade and bills payables and accruals and other payables, which arise directly from its operations.

The main risks arising from the Group's financial instruments are foreign currency risk, credit risk and liquidity risk.

Management Discussion and Analysis

FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(Continued)*

Interest and Foreign Exchange Risk

The Directors believe that the Group is not exposed to any material interest rate risk in view that the Group does not have any debt obligations that are subject to fluctuations in market interest rates.

The Group has transactional currency exposures. Such exposures arise from sales or purchases by operating units in currencies other than the units' functional currency. Approximately 7% (2018: 10%) of the Group's sales are denominated in currencies other than the functional currency of the operating units making the sale, whilst almost 34% (2018: 40%) of costs are denominated in the units' functional currency. The Group keeps monetary items in foreign currencies at a certain level in order to meet the needs of purchases that are denominated in foreign currencies. It is the Group's policy not to enter into forward contracts until a firm commitment is in place. During the reporting period, the Group was exposed to no material difficulties or no material influence was arisen on the Group's operations and cash flows due to the fluctuations in foreign exchange.

Credit Risk

The Group trades only with recognised and creditworthy third parties and, therefore, no collaterals are required. At the end of the reporting period, the Group has certain concentrations of credit risk as the Group's sales are made to several major customers. 4% (2018: 19%) of the Group's total trade and bills receivables were due from the Group's five largest customers. The Group seeks to maintain strict control over its outstanding receivables and closely monitors the collection of receivables to minimise credit risk.

The credit risk of the Group's other financial assets, which comprise cash and cash equivalents, deposits and other receivables, arises from default of the counterparty, and the maximum exposure is limited to the carrying amount of these instruments.

Liquidity Risk

The Group monitors its risk to a shortage of funds using a recurring liquidity planning tool. This tool considers the maturity of both its financial instruments and financial assets (e.g., trade and bills receivables) and projected cash flows from operations.

The Group's objective is to maintain a balance between continuity of funding and flexibility through the use of normal business credit terms obtained from lease liabilities.

CAPITAL COMMITMENTS

As at 31 December 2019, the Group had capital commitments contracted but not provided for in the amount of approximately RMB29,360,000 (2018: RMB8,523,000), which were related to the acquisition of property, plant and equipment.

Management Discussion and Analysis

CONTINGENT LIABILITIES

As at 31 December 2019, the Group had no contingent liabilities (2018: nil).

USE OF CAPITAL AND FUNDING

Proceeds from placing of shares

1. On 16 October 2017, the Company completed placing of an aggregate of 42,000,000 new H shares at the placing price of HK\$5.33 per placing share. The net proceeds (after deduction of the fees, commissions and expenses) from the placing amounted to approximately RMB184,203,000.
2. The Company has entered into a share subscription agreement on 12 December 2018, in relation to placing a total of 35,172,000 new domestic shares at a placing price of RMB5.73 per share. The proceeds from the Placing were received before the end of 2018 and the net proceeds from the Placing after deducting relevant fee is approximately RMB200,715,000.

The above proceeds have been utilised in the way disclosed by the Company in the relevant announcements. The proceeds utilised up to 31 December 2019 are as follows:

	Unutilised net proceeds as at 1 January 2018 RMB'000	Net proceeds from placement in 2018 RMB'000	Utilised amount in 2018 RMB'000	Unutilised amount as at 31 December 2018 RMB'000	Utilised amount in 2019 RMB'000	Unutilised amount as at 31 December 2019 RMB'000
H shares placement	143,316	–	(98,284)	45,032	(45,032)	–
Domestic shares placement	–	200,715	(71,844)	128,871	(128,871)	–
	143,316	200,715	(170,128)	173,903	(173,903)	–

Management Discussion and Analysis

Details of utilisation of operational funds are as follows:

	Utilised amount in 2019 RMB'000	Utilised amount In 2018 RMB'000
H shares placement		
Loans and processing fee	43,370	97,511
Administrative expenses	475	773
Exchange loss	1,187	–
	45,032	98,284
Domestic shares placement		
Loans and processing fees	82,093	61,177
Wages	6,804	1,876
Research and development expenses	7,321	3,728
Tax expense	32,653	5,063
	128,871	71,844
Total	173,903	170,128

EMPLOYEES

As at 31 December 2019, the Group has approximately 1,350 (2018: 1,240) employees. Due to the continual investment in research and development projects, the number of employees of this division engaged more than a half of the total employees and had the highest growth in members. The remuneration of employees was determined in accordance with their performance, qualifications, experience and contribution to the Group with reference to the latest market trend in the industry.

As at 31 December 2019, the employee benefit expense (including directors' remuneration) as recorded in the consolidated statement of profit or loss was approximately RMB393,455,000 (2018: RMB336,258,000). The increase in employee expenses was due to an increase of 110 employees in the year as well as the increase in wages in the industry due to continued industry development and talent hunger. The employee benefit expense of RMB36,601,000 (2018: RMB56,068,000) was capitalized as development costs during the year.

COMPLIANCE WITH LAWS AND REGULATIONS

The Directors deem the compliance with laws and regulations as the cornerstone of a business and attach considerable importance to it. The Group strictly complies with relevant laws and regulations of each country and region where the subsidiary companies perform business activities. Furthermore, as the H shares of the Company are listed on the main board of Stock Exchange of Hong Kong Limited ("The Stock Exchange"), the Company shall be bound by the Rules Governing the Listing of Securities on The Stock Exchange and the Securities and Futures Ordinance on Chapter 571 of the Laws of Hong Kong. The Group's operating business is not subject to any specific regulation at the time being.

Management Discussion and Analysis

RELATIONSHIP WITH EMPLOYEES, CUSTOMERS AND SUPPLIERS

The Group provides in service training, technological exchange, series of lectures and group study to staff members and management team; this can deepen their understanding on technological development and the industry's trend, strengthen their professional skills and knowledge, in order to help with the long-term development of the business. Besides, the Group provides suitable employees benefits, arranges regular health checkups, participates in social events, recreational activities and competitions, in favor of the staff's healthy living and their sense of belonging to the Company.

The Group's employee remuneration package is determined with reference to industry standards and individual qualifications and performance. The Group will conduct annual assessment regarding the performance and skill development of employees to adjust salaries and bonuses and develop incentive programs.

Understanding that customer is the key factor for generating revenue and business development, the Group actively maintains close and long term partnerships with customers. With more than ten years of business experience and expertise, the Group strives to fulfill the requirements of customers. In 2019 and 2018, no sales to a single customer contributed to 10% or more of the Group's revenue. All the Group's five largest customers were manufacturers of security IC chips and smart meter agents, which are renowned enterprises in the industry with business relationship with the Group for 5 to 10 years. These customers are traded with 90 days credit that is the same credit term given by the Group to other customers. As at 31 December 2019, the above-mentioned 5 customers have no record of overdue payment nor doubtful debt provision. In accordance with the risk management policies adopted by the Group, its customers and products are managed in well-balanced portfolios, there is no exposure on heavy reliance on individual products nor these major customers' orders.

The Group sees the suppliers as valued business partners, and is committed to maintain long term relationships with them and protect interests of both sides to ensure reasonable prices and stable supply of the Group. The Group does not rely on any main supplier that might lead to a significant impact on the operation.

Corporate Information

BOARD OF DIRECTORS

Executive Directors

Mr. Jiang Guoxing (*Chairman*)
Mr. Shi Lei (*Managing Director*)
Mr. Yu Jun (*Deputy Managing Director*)
Ms. Cheng Junxia

Non-executive Directors

Ms. Zhang Qianling
Mr. Ma Zhicheng
Ms. Zhang Huajing
Mr. Wu Ping (Appointed on 16 August 2019)

Independent Non-executive Directors

Mr. Guo Li
Mr. Cao Zhongyong (Appointed on 3 June 2019)
Mr. Cai Minyong (Appointed on 3 June 2019)
Mr. Wang Pin (Appointed on 3 June 2019)

COMPANY SECRETARY

Mr. Li Wing Sum, Steven *FCCA, FCPA*

AUTHORISED REPRESENTATIVES

Mr. Shi Lei
Mr. Li Wing Sum, Steven

AUDIT COMMITTEE

Mr. Wang Pin (*Chairman*) (Appointed on 3 June 2019)
Mr. Guo Li
Mr. Cai Minyong (Appointed on 3 June 2019)

NOMINATION COMMITTEE

Mr. Cai Minyong (*Chairman*)
(Appointed on 3 June 2019)
Mr. Guo Li
Ms. Cheng Junxia

REMUNERATION COMMITTEE

Mr. Cai Minyong (*Chairman*)
(Appointed on 3 June 2019)
Mr. Guo Li
Ms. Cheng Junxia

STRATEGIC AND INVESTMENT COMMITTEE

Ms. Cheng Junxia (*Chairman*)
Mr. Jiang Guoxing
Mr. Shi Lei
Mr. Yu Jun

SUPERVISORS' COMMITTEE

Ms. Zhang Yanfeng (Appointed on 3 June 2019)
Mr. Ren Junyan (Appointed on 3 June 2019)
Mr. Gu Weizhong (Appointed on 16 August 2019)

AUDITORS

Ernst & Young
Certified Public Accountants

REGISTERED OFFICE

No. 220, Handan Road
Shanghai
People's Republic of China

PLACE OF BUSINESS IN HONG KONG

Flat 6, 5/F., East Ocean Centre
98 Granville Road, Tsimshatsui East
Kowloon, Hong Kong

SHARE REGISTRAR AND TRANSFER OFFICE

Tricor Tengis Limited
Level 22, Hopewell Centre
183 Queen's Road East
Wanchai, Hong Kong

PRINCIPAL BANKERS

Industrial and Commercial Bank of China
Shanghai branch

China Everbright Bank Co., Ltd.
Shanghai branch

STOCK CODE

1385

Directors and Senior Management Biographies

Biographical details of the directors and the senior management of the Company are set out below:

DIRECTORS

Executive directors

Mr. Jiang Guoxing, aged 66, joined the Company in July 1998, is the Chairman and a member of the strategic and investment committee of the Company. Mr. Jiang is a professor grade senior engineer and graduated with a degree in Computer Science from the Fudan University. He was the vice chairman and general manager of Shanghai Fudan Forward Science and Technology Co., Limited, a company listed on the Shanghai Stock Exchange, the chief of the Office of Research-product Industrialization and University Enterprise Management of the Fudan University and the non-executive director of Shanghai Fudan-Zhangjiang Bio-Pharmaceutical Co., Ltd., a company listed on the main board of the Stock Exchange.

Mr. Shi Lei, aged 53, joined the Company in July 1998, is the Managing Director and a member of the strategic and investment committee of the Company. He is a professor grade senior engineer and was graduated with a Bachelor's degree in management from the University of Science and Technology of China (the "USTC") and a Master's degree in management from the Fudan University. Mr. Shi was the deputy manager in the Development Division of Shanghai Agricultural Investments Company and the general manager of Shanghai Pacific Commercial Trust Company Limited.

Mr. Yu Jun, aged 52, joined the Company in July 1998, is the Deputy Managing Director and a member of the strategic and investment committee of the Company and a director respectively of the Company's subsidiary namely, Sino IC Technology Co., Ltd. ("Sino IC") and an associate namely Shanghai Fukong Hualong Micro-system Technology Co., Ltd.. He is also the general manager of Shanghai Fudan High Tech Company, a substantial shareholder of the Company. He graduated with a Bachelor's degree in Electronics Engineering and a Master's degree in Electronics and Information Systems from the Fudan University and is a senior engineer. Mr. Yu was the deputy director and tutor of the Research Institute for Integrated Circuit Designs of the Fudan University as well as the chief engineer of Shanghai Fudan High Tech Company. He has extensive knowledge and experience in the design of integrated circuits and systems.

Ms. Cheng Junxia, aged 73, joined the Company in July 1998, is a member of the remuneration committee, the nomination committee and a member of the strategic and investment committee. She is also the Chief Engineer of the Company and a director of the Company's subsidiary namely, Shanghai Fudan Microelectronics (Hong Kong) Limited ("Fudan Hong Kong"). She graduated with a degree in Physics from the Fudan University. She was a professor and a director of the Research Institute for Integrated Circuit Designs of the Fudan University and the general manager of Shanghai Fudan High Tech Company. She has extensive knowledge and experience in the design and manufacture of integrated circuits.

Non-executive directors

Ms. Zhang Qianling, aged 83, joined the Company in July 1998. She is also the supervisor of Sino IC. She was graduated from the Department of Physics of Fudan University and was a principal professor and tutor to doctorate students at Fudan University. She was a promoter and first director of the ASIC and System State Key Laboratory of the Fudan University and was a director of Shanghai Huahong Integrated Circuit Co. Ltd..

Directors and Senior Management Biographies

DIRECTORS *(Continued)*

Non-executive directors *(Continued)*

Mr. Ma Zhicheng, aged 59, joined the Company in July 2015, is a qualified senior operating manager. He was awarded the post-graduate degree of Business Administration from the Shanghai Academy of Social Sciences. He is the Deputy General Manager of Shanghai Commerce and Invest (Group) Corporation (“SCI”) which is a substantial shareholders of the Company. He is also the Managing Director of Shanghai Fudan Fukong Technology Enterprise Holdings Limited, a subsidiary of SCI. Mr. Ma is the Chairman of Shanghai Fudan Digi-medical Technology Co., Ltd.. He was the Assistant General Manager of SCI, the General Manager of Shanghai Commercial Investment Venture Capital Co., Ltd., the Chairman of Shanghai Hualong Information Technology Development Center, the Deputy General Manager of Shanghai Xinlian Real Estates Co. and the Office Manager of Shanghai Aeronautic Machinery Co..

Ms. Zhang Huajing, aged 59, joined the Company in July 2015. She was awarded a Bachelor’s degree from Shanghai University of Finance and Economics and is a senior accountant. She is the Deputy Chief Accountant and Finance Manager of SCI. Ms. Zhang was the Assistant Manager of Finance Department and Audit Director of SCI. She was also the Chief Accountant of Yangtze River Economic United Development (Group) Co., Ltd.. She was the Chief Accountant of Finance Department of Changfa Group Shanghai Trading and Industrial Holding Co..

Mr. Wu Ping, aged 56, joined the Company in August 2019. He holds a Bachelor’s degree from Shanghai Second Polytechnic University. He previously served as the secretary of the league committee of Shanghai Rectifier Factory Co., Ltd., director of factory office of Shanghai Mining Electrical Appliances Factory Co., Ltd., the executive director and senior vice president of Shanghai Fosun High Technology (Group) Co., Ltd., the director of Debon Securities Co., Ltd., the general manager of SCI, the chairman of Shanghai Commercial Investment Venture Capital Co., Ltd., the chairman of Shanghai Fudan Fukong Technology Industry Holdings Co., Ltd. (“Fudan Fukong”), the chairman of Shanghai Space-Star Venture Investment Management Co., Ltd.. From October 1995 up to June 2018, he served as the director of Shanghai Bailian Group Co., Ltd. and the chairman of Shanghai Yuyuan Tourist Mart Co., Ltd., companies listed in the Shanghai Stock Exchange, respectively, as well as the director of Zhaojin Mining Industry Company Limited, a company listed in the Stock Exchange. He is currently the chairman of Shanghai Commercial Investment Holding Limited and has been a director of Shanghai No.1 Pharmacy Co., Ltd., a company listed in the Shanghai Stock Exchange, since 12 December 2018.

Independent non-executive directors

Mr. Guo Li, aged 73, joined the Company in May 2006 and is a member of the audit committee, the remuneration committee and the nomination committee of the Company. He graduated from the Department of Radio Electronics from the USTC and is a professor and doctoral supervisor as well as a senior member of China Electronics Academy and a member of China Image and Graphics Academy. He was the director of the Academic Committee of Department of Science and Technology in the University of Science and Technology of China as well as its Laboratory of Circuit and System. He has been carrying the researches in digital signal processing, digital image processing and IC design etc. and was a visiting scholar in the Department of Computer in the University of Notre Dame of the United States.

Directors and Senior Management Biographies

DIRECTORS *(Continued)*

Independent non-executive directors *(Continued)*

Mr. Cao Zhongyong, aged 61, joined the Company in June 2019. He received a Bachelor's degree in 1983 and a Master's degree in 1986 respectively from the Department of Transportation Management of the Shanghai Institute of Railways, and further received a doctorate degree in Economics from the Beijing Jiaotong University in 1995. Dr. Cao was seconded by the Ministry of Railways as a visiting scholar at Harvard Kennedy School of Politics. He was a professor, Assistant Dean of International Economics and Management and deputy head of the Academic Registry of the Shanghai Railways University; tutors to doctorate students of the Tongji University and post-doctoral station of the Shanghai Maritime University. He was also the supervisor of the Examination and Assessment Centre for Leader Cadres of Shanghai, supervisor of the Shanghai Executive Development Centre, supervisor of accreditation committee of qualifications for assigned directors and supervisors of state-owned enterprises of Shanghai and chairman of the Alumni Association of the Harvard University. He was awarded in 1995 with the youth technology talent of the first session held by the Ministry of Railways and excellent youth high school scholar of Shanghai.

Mr. Cai Minyong, aged 64, joined the Company in June 2019. He graduated in Fudan University with a Bachelor's degree in Economics and Management. Mr. Cai was a member respectively of the Budget Working Committee of the Standing Committee of People's Congress, Financial and Economic Committee of the Shanghai Municipal People's Congress, the Shanghai Arbitration Commission and the Arbitrator of China International Economic and Trade Arbitration Commission. He also served as the Chief Executive and Party Secretary of the Shanghai United Assets and Equity Exchange, the Deputy Director of the Management Office of the Organization Department of the Shanghai Municipal, the Supervisor of the Shanghai High-tech Achievement Transformation Service Center, the President of Shanghai Technology Property Exchange, the Supervisor of the Shanghai Science and Technology Development and Exchange Center, the Party Secretary of the Shanghai Pioneer Pharmaceutical Company, the Party Secretary and Factory Manager of the Shanghai Wuzhou Pharmaceutical Factory, and the Chairman respectively of Shanghai Wuzhou Hesite Pharmaceutical Co., Ltd.; the Shanghai Jiuzhou Property Development Co., Ltd. and the Shanghai Pioneer Antibeer Pharmaceutical Co., Ltd.. In addition, he was the President of China Enterprise State-owned Property Rights Exchange Association, Vice Chairman of the Shanghai Financial and Industry Association, and Chairman of the Common Market of Proprietary Rights Trading in the Yangtze River Delta.

Mr. Wang Pin, aged 46, joined the Company in June 2019. He graduated in Shanghai University with a Bachelor's degree in Economics and Management and awarded an EMBA degree from the cooperative of the Shanghai National Accounting Institute and the Arizona State University of the USA. Mr. Wang is a registered accountant of the PRC and a qualified fund dealer of the China Securities Investment Fund Association. He is now a partner of Shanghai Blue Ocean Capital Ltd.. He was the assurance manager of an accounting firm and a practicing accountant, and the financial controller of Shanghai Prime Machinery Company Ltd.. He has substantial experience in accounting, finance, corporate governance of listed company, merge and acquisition, management and investment.

Directors and Senior Management Biographies

SUPERVISORS

Ms. Zhang Yanfeng, aged 44, was appointed in June 2019 and is a staff representative supervisor. She joined the Company in 2005 and is the Officer of Human Resource of the Company and holds a Master's degree in Business Administration of the University of Hong Kong.

Mr. Ren Junyan, aged 59, was appointed in June 2019 and is a shareholders' representative supervisor. He received a Bachelor's degree in physics in 1983 and a Master's degree in electronics engineering in 1986 respectively from the Fudan University. Mr. Ren is a professor of the school of microelectronics of the Fudan University, a doctoral advisor and a member of The Institute of Electrical and Electronics Engineers ("IEEE").

Mr. Gu Weizhong, aged 51, was appointed in August 2019 and is a shareholders' representative supervisor. He holds a Master's degree of law from Fudan University and a Bachelor's degree from PLA Nanjing Political College. He previously served as the teacher of the political teaching and research section, political department officer and instructor of The Second Military Medical University, the deputy director and director of Shanghai Municipal State-owned Assets Supervision and Administration Commission, the deputy director and director of Secretary Office of the Board of Directors and deputy director of the party committee office of Bailian Group Co., Ltd. (Bailian Group), the deputy secretary of the party committee of Shanghai Commercial Investment. He is currently the secretary of the party committee of Shanghai Commercial Investment and director of the party committee office of Bailian Group.

SENIOR MANAGEMENT

Mr. Diao Linshan, aged 54, joined the Company in January 1999, is the Deputy Operation Officer and General Manager of the Sales Department of the Company, and a director of Fudan Hong Kong. He holds a Master's degree in business management and administration. He has worked for Oxford and Cambridge International Group as assistant to general manager and Beijing Wantong Industrial Corporation Limited as deputy general manager. He had worked as sales manager in the smart card division after joining the Company and has substantial experience in marketing of IC and operation management.

Mr. Zeng Shaobin, aged 51, joined the Company in 2016, is the Deputy General Manager of the Company. Mr. Zeng holds a Master's degree in Economics and a Doctorate degree in Management Engineering. From 1991 to 2007, he served as the supervisor of the development and reform office of the Nanyang Normal University in Henan and the director of headmaster's office. From 2007 to 2016, he served as the director of the United Front Work Department of Shanghai Municipal Committee and a secretary general of Shanghai Association of Enterprises with Foreign Investment.

Ms. Fang Jing, aged 53, joined the Company in March 2003, is the Chief Finance Officer. She holds a Master's degree in business management and administration and is also a senior accountant. She served as a Deputy Manager of Financial planning department of Shanghai Pacific Commercial Trust Company Limited and a Chief Financial Officer of Shanghai Fudan Communication Co., Ltd..

Corporate Governance Report

DIRECTORS' RESPONSIBILITY ON THE FINANCIAL STATEMENTS

The directors of the Company acknowledge their responsibility for preparing the financial statements for the year ended 31 December 2019, which were prepared in accordance with statutory requirements and applicable accounting standards.

The reporting responsibilities of the external auditor on the financial statements are set out in the "Independent Auditor's Report" on pages 44 to 48.

COPORATE GOVERNANCE PRACTICES

The Company has adopted the code provisions set out in the Corporate Governance Code (the "CG Code") contained in Appendix 14 of the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Listing Rules"). In the opinion of the Directors, the Company has complied with the code provisions set out in the CG Code throughout the year ended 31 December 2019, save and except the code provision A.6.7 of the CG Code.

The code provision A.6.7 of the CG Code requires that independent non-executive directors and other non-executive directors should also attend general meetings and develop a balanced understanding of the views of shareholders. Some of the non-executive Directors and the independent non-executive Directors were unable to attend the annual general meeting and the extraordinary general meeting of the Company both held on 3 June 2019 and the extraordinary general meeting held on 16 August 2019 due to their other business engagements or with prior appointments. Details of the absence of the Directors are set out in "Record of number of Board and committee meetings and Directors' attendance". In respect of their absence, the Company has separately reminded each Director to comply with the relevant code provisions.

DIRECTORS' SECURITIES TRANSACTIONS

The Company has adopted a code of conduct regarding Directors' securities transactions on terms no less exacting than the required standard of dealings 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 regarding securities transactions by the Directors throughout the year ended 31 December 2019.

BOARD OF DIRECTORS AND BOARD MEETING

Composition and role

During the year ended 31 December 2019, the Board has 12 members and comprises 4 executive Directors, 4 non-executive Directors and 4 independent non-executive Directors. The changes in the Board during the year were as follows:

Non-executive directors:

Mr. Wu Ping (Appointed on 16 August 2019)

Mr. Yao Fuli (Resigned on 16 August 2019)

Independent non-executive directors:

Mr. Cao Zhongyong (Appointed on 3 June 2019)

Mr. Cai Minyong (Appointed on 3 June 2019)

Mr. Wang Pin (Appointed on 3 June 2019)

Mr. Cheung Wing Keung (Resigned on 3 June 2019)

Mr. Chen Baoying (Resigned on 3 June 2019)

Mr. Lin Fujiang (Resigned on 3 June 2019)

Corporate Governance Report

BOARD OF DIRECTORS AND BOARD MEETING *(Continued)*

The Board members have no financial, business, family or other material/relevant relationships with each other. The Board's composition is formed to be well balanced to ensure strong independence exists across the Board. The biographies of the Directors are set out on pages 13 to 15, with details of diversity of skills, expertise, experience and qualifications concerning the Directors.

The Board is responsible for the leadership and management of the Group's businesses as well as its strategic planning and performances. The Management was delegated the authority and responsibility by the Board for the management of the Group. In addition, the Board has also delegated various responsibilities to the Board committees. Details of these committees are set out below in this report.

The Board classifies directors into chairman, executive directors, non-executive directors and independent non-executive directors and this has been disclosed in all the Company's announcements, circulars and the websites of the Company and the Stock Exchange.

For the year ended 31 December 2019, the Company has complied with the Listing Rules that the independent non-executive directors appointed must representing at least one-third of the Board. In addition, the Company has ensured that at least one of the independent non-executive Directors has appropriate professional qualifications, or accounting or related financial management expertise as required by the Listing Rules. The participation of independent non-executive Directors can provide the Board with independent judgements, knowledge and experience to ensure the interests of all shareholders have been duly considered.

The Company has arranged appropriate insurance cover in respect of legal action against the Directors.

Chairman and Managing Director

The Company has, since the early stage of its incorporation in 1998, segregated the duties of the chairman of the Board and the managing director. The Chairman of the Board and the Managing Director are separately held by Mr. Jiang Guoxing and Mr. Shi Lei in order to preserve independence and have a balanced judgement of views. The Chairman of the Board has the responsibilities to lead the Board and make sure it works effectively and discharges its responsibilities and that all key and appropriate issues are discussed by the Board in a timely manner. The Managing Director has the responsibilities to manage and execute the Group's business directions and operation decisions.

Appointment, re-election and removal of Directors

All appointments of Directors have to be first considered by the Nomination Committee and proposed by the Nomination Committee to the full Board according to the skills, knowledge and experience of the nominee for further approval. Terms of appointment of Directors of the Company is three years.

Terms of Appointment of Directors

Executive Directors

Each of the four executive Directors has entered into a service contract with the Company for a term of three years which commenced on 3 June 2019 unless terminated by a three months' prior written notice to be given by either party without payment of compensation.

Corporate Governance Report

BOARD OF DIRECTORS AND BOARD MEETING *(Continued)*

Terms of Appointment of Directors *(Continued)*

Non-executive Directors

Mr. Wu Ping, who was appointed on 16 August 2019, has entered into a service contract with the Company for a term which commenced on 16 August 2019 until 2 June 2022. The remaining three non-executive directors have entered into a service contracts with the Company for a term of three years which commenced on 3 June 2019 unless terminated by a three months' prior written notice to be given by either party without payment of compensation.

Independent Non-executive Directors

Each of the four independent non-executive Directors has entered into a service contract with the Company for a term of three years which commenced on 3 June 2019 unless terminated by a three months' prior written notice to be given by either party without payment of compensation.

The Company has received written annual confirmation from the four independent non-executive Directors of their independence according to Rule 3.31 under the Listing Rules and recognized their independence.

Board meetings

The Board held four full board meetings in each year and meets as and when required. During the year, the Directors will receive details of agenda and related documentary materials for decision and to make sure they have sufficient information in advance of each board meeting.

Board minutes are kept by the company secretary of the Company and are sent to the Directors for records and are open for inspection by the Directors.

Committees

The Board strives to maintain excellent corporate governance and has established committees with written terms of reference setting out the powers and duties of the committees:

1. Audit Committee

An audit committee has been established with written terms of reference in compliance with Listing Rules and has been published on the websites of the Stock Exchange and the Company. The primary duties of the audit committee are to review and supervise the financial reporting process and internal controls as well as risk management of the Group. The audit committee comprises three independent non-executive Directors, Mr. Wang Pin (Chairman), Mr. Guo Li and Mr. Cai Minyong. The audit committee members are well experienced in management, accounting, finance, commercial and electronic industry sectors.

The Group's financial statements for the year ended 31 December 2019 have been reviewed by the committee, who were of the opinion that these statements complied with the applicable accounting standards, the Listing Rules and legal requirements, and that adequate disclosures had been made.

The audit committee held four meetings during the year under review. Besides, the committee also held two meetings with the auditors for the discussions on issues including the accounting policies adopted by the Group, internal control, risk management and financial statements.

Corporate Governance Report

BOARD OF DIRECTORS AND BOARD MEETING *(Continued)*

Committees *(Continued)*

2. *Nomination Committee*

The nomination committee now comprises two independent non-executive Directors, Mr. Cai Minyong (Chairman) and Mr. Guo Li and an executive Director, Ms. Cheng Junxia. The nomination committee was established with written terms of reference which has been published on the websites of the Stock Exchange and the Company. The main roles and functions of the nomination committee include periodical review on the structure, number of members and diversity (including without limitation, gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service) of the Board, and to access the independence of independent non-executive Directors and to make recommendation as to the changes of Directors. The committee identifies suitable candidates who can add value to the management through their contributions in the relevant strategic business areas, and makes recommendation to the Board in respect of the appointment and reappointment of Directors which will result on the constitution of a strong and diverse Board. In carrying out its responsibilities, the Nomination Committee will give adequate consideration to the principles under Rules A.3 and A.4 of Appendix 14 of the Listing Rules.

Nomination policy

The nomination policy sets out the procedures and criteria for the nomination process, selection and recommendation of suitable candidates for the purpose of achieving diversity of members.

When considering and accessing suitable candidates, the Nomination Committee will consider the diversity on the Board, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge, length of service and understanding of the Group's business and achievements in the industry, and will also consider the adequacy of time commitment by candidate, the commitment to perform relevant duties and the assessment of the contribution to the Group. The Nomination Committee will review the nomination policy from time to time in response to changes in the business of the Group and specific needs to ensure that the relevant policies continue to be effective. The Nomination Committee is responsible for adopting the measurable objectives for achieving diversity on the Board and monitoring the achievement of measurable objectives and reporting the progress.

For the year ended 31 December 2019, the Nomination Committee held two meetings. The meetings reviewed the current structure, number of members, composition and diversity of the Board, and the effectiveness of the Nomination Policy, and the assessed independence of each independent non-executive Directors. Also, the meetings provide opinion to the Board regarding the proposed one non-executive director and three independent non-executive directors of the Board during the year.

3. *Remuneration Committee*

The remuneration committee now consists of independent non-executive Directors, Mr. Cai Minyong (Chairman) and Mr. Guo Li and an executive Director, Ms. Cheng Junxia. The remuneration committee was established with written terms of reference which has been published on the websites of the Stock Exchange and the Company. The roles and functions of the remuneration committee included the determination of the remuneration packages of all executive Directors, including their benefits in kind, pension rights and compensation payments, any compensation payable for loss or termination of their office or appointment, and make recommendations to the Board for the remuneration of non-executive Directors. The Remuneration Committee also considers factors such as salaries of comparable companies in the same industry, time commitment and responsibilities of the Directors, employment conditions within the Group and performance.

Corporate Governance Report

BOARD OF DIRECTORS AND BOARD MEETING *(Continued)*

Committees *(Continued)*

3. *Remuneration Committee (Continued)*

During the year under review, two meetings of the remuneration committee were held. During the meetings, the remuneration committee has considered and reviewed the existing terms of employment contracts of the executive Directors, non-executive Directors and independent non-executive directors. The remuneration committee also reviewed and provided opinion regarding the existing terms of employment contracts of four appointed Directors during the year. It considered that the existing terms of employment contracts of the executive Directors, non-executive Directors and independent non-executive Directors were fair and reasonable.

4. *Strategic and Investment Committee*

The Strategic and Investment Committee was established on 16 October 2018 with the following duties:

- a) To review, evaluate and approve investment project worth not exceeding RMB50 million (including accumulated amount within 12 months);
- b) To review, evaluate and propose to the Board for approval investment project worth over RMB50 million (including accumulated amount within 12 months);
- c) To supervise the implementation and to keep all investment projects within the limit approved by the Board;
- d) An investment project can fall into either of the following three categories:
 - (i) Investment in real property;
 - (ii) Investment in listed securities and bonds; and
 - (iii) Investment in unlisted securities.
- e) To determine whether the proposed investment project is in the interests of the Company and the shareholders of the Company as a whole;
- f) If the proposed investment projects constitute disclosable transactions, inside information or connected transactions under the Listing Rules, the Secretary must be notified immediately for taking necessary actions and information disclosures; and
- g) To carry out other duties as may be assigned from time to time by the Board.

The Strategic and Investment Committee comprises of four members and all of which are executive directors of the Company. The committee held a meeting during the year for the discussion of potential investment opportunities available to the Company.

Corporate Governance Report

BOARD OF DIRECTORS AND BOARD MEETING *(Continued)*

Record of number of Board and committee meetings and Directors' attendance

During the year ended 31 December 2019, the number of regular Board and committee meetings and Directors' attendance are set out below:

Director	General meeting	Board of Directors	Audit Committee	Nomination Committee	Remuneration Committee	Strategic and Investment Committee
Mr. Jiang Guoxing	3/3	4/4	N/A	N/A	N/A	1/1
Mr. Shi Lei	2/3	3/4	N/A	N/A	N/A	1/1
Mr. Yu Jun	3/3	4/4	N/A	N/A	N/A	1/1
Ms. Cheng Junxia	3/3	4/4	N/A	2/2	2/2	1/1
Ms. Zhang Qianling	1/3	4/4	N/A	N/A	N/A	N/A
Mr. Ma Zhicheng	3/3	2/4	N/A	N/A	N/A	N/A
Ms. Zhang Huajing	1/3	4/4	N/A	N/A	N/A	N/A
Mr. Wu Ping ^(Note 1)	N/A	1/1	N/A	N/A	N/A	N/A
Mr. Guo Li	0/3	3/4	4/4	2/2	2/2	N/A
Mr. Cao Zhongyong ^(Note 2)	1/2	2/2	N/A	N/A	N/A	N/A
Mr. Cai Minyong ^(Note 2)	1/2	1/2	1/2	1/1	1/1	N/A
Mr. Wang Pin ^(Note 2)	1/2	2/2	2/2	N/A	N/A	N/A
Mr. Yao Fuli ^(Note 3)	1/3	1/2	N/A	N/A	N/A	N/A
Mr. Cheung Wing Keung ^(Note 4)	0/1	2/2	2/2	1/1	1/1	N/A
Mr. Chen Baoying ^(Note 4)	0/1	2/2	1/1 ^(Note 5)	N/A	N/A	N/A
Mr. Lin Fujiang ^(Note 4)	0/1	2/2	2/2	N/A	N/A	N/A

Note:

1. Appointed on 16 August 2019
2. Appointed on 3 June 2019
3. Resigned on 16 August 2019
4. Resigned on 3 June 2019
5. Mr. Chen Baoying is not a member of the Audit Committee but attended the annual review of the continuing connected transactions of the Group.

During the year under review, the chairman of the Board and non-executive Directors (including independently non-executive Directors) held one meeting without the executive Directors present, to discuss and review the performance of the executive Directors and management and the adequacy and effectiveness of risk management and internal control systems to safeguard the interests of the Group. During the meeting, the Chairman of the Board and non-executive Directors sought improvement suggestions from the Directors who attended the meeting on the development of strategies and policies of the Group.

During the year, the independent non-executive Directors also held meeting with external auditor without the executive Directors present, to discuss audit fees, issues arising from the audit process and matters of concern, and any other matters raised by external auditors.

Corporate Governance Report

BOARD OF DIRECTORS AND BOARD MEETING *(Continued)*

Directors training

All Directors have participated in continuous professional development to develop and refresh their knowledge and skills. This is to ensure that their contribution to the Board remains informed and relevant. The Company has the responsibility for arranging and funding suitable training, placing an appropriate emphasis on the roles, functions and duties of a listed company director. The Group also provides Directors seminars regularly, to provide and update the Listing Rules amended from time to time, the changes in companies law, the amendment to the accounting standards, and materials including corporate governance and references of non-compliance cases.

During the year ended 31 December 2019, all Directors have received relevant trainings and have provided their training records as follow:

Directors	Training type
Mr. Jiang Guoxing	A,B
Mr. Shi Lei	A,B
Mr. Yu Jun	A,B
Ms. Cheng Junxia	A,B
Ms. Zhang Qianling	A,B
Mr. Ma Zhicheng	A,B
Ms. Zhang Huajing	A,B
Mr. Wu Ping	A,B
Mr. Guo Li	A,B
Mr. Cao Zhongyong	A,B
Mr. Cai Minyong	A,B
Mr. Wang Pin	A,B

Notes:

A. Attending conference/forum/seminar/workshop

B. Reading relevant articles and information relating to the business, economy, directors' duties and corporate governance

COMPANY SECRETARY

During the year, the Company Secretary has undertaken no less than 15 hours of professional training to update his skills and knowledge.

Corporate Governance Report

AUDITORS' REMUNERATION

The audit committee of the Company is responsible for considering the appointment of the external auditors and reviewing any non-audit functions performed by the external auditors, including whether such non-audit functions could lead to any potential material adverse effect on the Company. During the year under review, the Group has paid the following fees to the external auditors and which has been reviewed and approved by the audit committee:

	2019 RMB'000	2018 RMB'000
Annual audit	1,627	1,613

INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM

An internal control of department was formed by the Company. The Company and each subsidiary have to conduct at least annually to enable the Board to perform a review on the Group's system of internal control and risk management to ensure the effective and adequate internal control system including finance, compliance control, operations and risk management. The reports and findings prepared by the internal audit team have to be circulated to the relevant committee delegated by the Board. If necessary, the internal audit team and the risk management team will submit their findings and the proposed audit plan to the audit committee for its approval. A review of system of internal control and risk management has been undergone during the year under review and the Directors are satisfied that the Group has maintained sound and effective internal controls and risk management.

CONSTITUTIONAL DOCUMENTS

The constitutional documents of the Company have been published both on the websites of the Stock Exchange and the Company. The Company has published an announcement on 17 April 2019 for the proposal of amendments to the articles of association of the Company and was approved by the shareholders at the annual general meeting held on 3 June 2019. The requisite business registration procedures for amendments to the articles were completed on 4 July 2019 and became effective. In respect of the issue of A shares, the Company published an announcement on 17 April 2019 for the proposal of amendments to the articles of association of the Company and was approved by the shareholders at the extraordinary general meeting held on 3 June 2019. The related amendments will be effective on the day of issue of A shares.

Corporate Governance Report

SHAREHOLDERS' RIGHT

Shareholders can convene an extraordinary general meeting (“EGM”)

Shareholders requesting the convening of an extraordinary shareholders' general meeting or a class meeting of shareholders shall proceed in accordance with the procedures set forth below in accordance with the articles of association of the Company:

- (1) shareholders separately or aggregately holding a total of 10 percent or more of the shares may sign one or more written counterpart requests requesting the Board to convene an extraordinary shareholders' general meeting or a class meeting of shareholders and stating the subject of the meeting. The Board shall convene the shareholders' general meeting or the meeting of shareholders of different class as soon as possible after having received the above-mentioned written request; and
- (2) if the Board fails to issue a notice of such a meeting within 30 days after having received the above-mentioned written notice, the shareholders who made such request may themselves convene the meeting within four months after the Board received the request. The procedures according to which they convene such meeting shall be, as similar as possible, to the procedures according to which shareholders' meetings are to be convened by the Board.

Forward a proposal at a general meeting

When the Company is to hold an annual shareholders' general meeting, shareholders separately or aggregately holding 3 percent or more of the total number of the Company's shares shall be entitled to propose new notions in writing to the Company. The Company shall include in the agenda for the meeting the matters in the motions that fall within the scope of duties of the shareholders' general meeting.

Procedures for directing Shareholders' enquiries to the Board

Shareholders may at any time send their enquiries and concerns to the Board in writing through the Company Secretary. Shareholders may also make enquiries with the Board at the general meetings of the Company.

Procedure for shareholders to propose a person for election as a director

A written notice of intention to nominate a person for election as Director and a written notice of acceptance of such nomination given by such person shall be given in to the Company 7 days prior to a shareholder's meeting. The written notice shall be given in no earlier than the day after the dispatch of the notice of the meeting appointed for such election and end no later than seven days before the date of such meeting

SHAREHOLDERS' RELATIONS

The Company has been publishing all of its announcements including annual, interim reports and inside information in time in accordance with the Listing Rules. In addition to the post of spokesman established to liaise with shareholders and institutional investors, the Company also provides the most updated information on its website to maintain a different communication channel with its shareholders. Besides, the Board of Directors, the executive Directors, the non-executive Directors (including independent non-executive Directors) and the Company's external auditors have presented in the annual general meeting of the Company to communicate and answer to the questions raised by shareholders and significant issues were put as separate proposed resolutions.

Corporate Governance Report

DIVIDEND POLICY

The Company adopted a policy on payment of dividends (the “Dividend Policy”), which establishes an appropriate procedure on declaring and recommending the dividend payment of the Company.

The Company will declare and/or recommend the payment of dividends to the Shareholders after considering the Company’s ability to pay dividends, which will depend on a number of factors, including but not limited to:

- (i) the Group’s actual and expected financial performance;
- (ii) the Group’s expected working capital requirements, capital expenditure requirements and future expansion plans;
- (iii) retained earnings and distributable reserves of the Company and each of the members of the Group;
- (iv) the Group’s liquidity position;
- (v) the general economic conditions and other internal or external factors that may have an impact on the business or financial performance and position of the Group; and
- (vi) any other factors that the Board deems relevant.

The Board has complete discretion on whether to pay a dividend, subject to Shareholders’ approval, where applicable. Even if the Board decides to recommend and pay dividends, the form, frequency and amount will depend upon the operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors of and affecting the Group. The Board may also consider declaring interim dividends from time to time.

The Company shall review and reassess the Dividend Policy and its effectiveness on a regular basis or as required.

Environmental, Social and Governance Report

The Board is pleased to present the environmental, social and governance report (the “ESG Report”) of the Group for the year ended 31 December 2019. The report is prepared in accordance with the “Environmental, Social and Governance Reporting Guide” as set out in Appendix 27 to the Listing Rules. The report covers the overall environmental, social and governance policy of the Company and its subsidiaries (the “Group”) for the period from 1 January 2019 to 31 December 2019.

The Board shoulders full responsibility for the Group’s environmental, social and governance strategy and report and is responsible for evaluation and determination the environmental, social and governance risks exposed to the Group and ensuring the Group has the proper and efficient environmental, social and governance risk management and internal monitoring system. The management has provided a confirmation in relation to the effectiveness of the relevant system to the Board. The ESG Report sets out the Group’s environmental, social and governance policy, strategy, relevant significance and targets, and has explained how they are related to the Group’s businesses. The report sets out the management, measurement and supervision system for execution of its environmental, social and governance strategy. In addition, the ESG Report also covers the scope of business of the Group.

The table below summarizes the environmental, social and governance issues covered by the ESG Report:

ENVIRONMENT

Emissions

The Group’s principal activities consist of designing, developing and selling products of application-specific IC, provision of testing services for IC products; designing, developing and selling specific IC testing software and products; as well as the provision of research and consultancy services of IC technology. The Group operates in a fables model and does not have significant impact to the environment and does not generate pollution nor hazardous waste. At the time being, there are no specific environmental laws or regulations governing the industry for the Group to comply.

The Group has proactively reduced its resources consumption and implemented the best environmental protection practices, and conducted inspection from time to time, to highlight the Group’s commitments in terms of environmental protection and improvement. The Group complies with environmental protection laws. In addition to encouragement and promotion of all employees’ environmental protection awareness, the Group also pays attention to suppliers’ environmental protection measures in respect of production.

Greenhouse gases emissions

The Group places great value on environmental protection and has passed the inspection by the green gases emissions management in accordance with the ISO14064-1 standard in 2012. Currently, the Group engages Bureau Veritas to conduct an annual verification of the Group’s greenhouse gases emissions per year. By knowing the situation of greenhouse gases emissions based on data, the Group hopes to develop policies that can reduce carbon footprint, achieve the sustainable development targets of energy saving and carbon emissions reduction, and create a green corporate image.

Environmental, Social and Governance Report

ENVIRONMENT (Continued)

Emissions (Continued)

Greenhouse gases emissions (Continued)

During the reporting period, the total greenhouses emission generated by the Group was 10,997.51 tonnes with the per capita intensity of 8.207 (2018: 8,317.38 tonnes with the per capita intensity of 6.768). Details are set out below:

Scope of greenhouse gases emissions	2019		2018	
	Unit (tonne)	Intensity (per capita consumption)	Unit (tonne)	Intensity (per capita consumption)
Direct emissions – gasoline consumption	100.03	0.075	129.84	0.106
Indirect emissions – electricity consumption	10,827.53	8.080	8,134.82	6.619
– consumption of paper and water	69.95	0.052	52.72	0.043

Wastes management

In order to protect the environment, the Group has engaged the environmental recycling company to regularly implement “physical smashing” for the unqualified wastes of the Company. Physical smashing can separate recyclable metals to achieve the purpose of recycling resources. During the reporting period, the non-hazardous wastes generated by the Group were paper and printing supplies of office:

Name of non-hazardous wastes	Unit	Intensity (per capita consumption)	
		2019	2018
Paper	Tonne	0.006	0.004
Printing supplies	Piece	0.083	0.121

During the reporting period, the Group did not find any violation of environmental laws or regulations.

Use of Resources

The Group’s business nature does not involve much in consumptions of electricity and water. The Group pursues the principal and practice of recycling and saving.

During the reporting period, the energy consumption of the Group in business operations is as follows:

Type of energy	Unit	2019		2018	
		Consumption	Intensity (per capita consumption)	Consumption	Intensity (per capita consumption)
Gasoline	Litre	43,527.00	32.48	48,964.03	39.84
Electricity	kWh	13,457,043.79	10,042.57	12,056,442.80	9,809.96

Environmental, Social and Governance Report

ENVIRONMENT *(Continued)*

Use of Resources *(Continued)*

The water consumption of the Group is mainly for normal office operations which do not consume significant water.

The Group advocates the concept of green office and implemented measures such as installation of french windows to allow more sunlight in order to reduce the use of lighting, resettlement of old office furniture, encouraging employees to use emails and electronic messages instead of hardcopies, use of recycled papers during printing and copying, promotion of double-sided printing and copying, as well as turning off idle lighting, air conditioning and electricity to reduce energy consumptions. In order to further strengthen environmental protection, the Group cancelled free group transportation for our employees for going on and off duty, and also encouraged our employees to travel in public transits or choose bicycle sharing, in order to reduce the effects of emission of pollutants from motor vehicles on the environment. The Group thinks that the above measures have achieved ideal results in terms of reduction of greenhouse gases emission and saving resources.

The usage of electricity and paper for the year was comparatively higher than last year. The main reason is that the Group has additional employees and a significant increase in office spaces to cope with its business expansion. The management has paid special attention to the increase in usage of resources and has adopted certain measures for the save of resources including. with a view to further reduce the usage of resources.

Environmental and Natural Resources

The Group's business activities have not had any significant impact on the environment and natural resources. To improve the environment and air quality, the Group advocates the concept of a greened office and takes environmental protection measures in order to reduce any pollutants production from business operations. The Group manages the number of its motor vehicles strictly and properly arranges logistics.

The Group has adopted the plant-free operation model to minimize our damage to the environment and natural resources. The Group has prepared the Physical Standards on Environmental Management and undertaken that the lead-free and halogen-free products provided by it meet requirements. The Group will pay continuous attention to the new management and control requirements on environmental management substances of customers and under laws and regulations, and proactively use new materials and new technologies to provide products satisfactory to customers and make our contributions to environmental protection.

Environmental, Social and Governance Report

SOCIAL

Employment and Labor Practices

Employment

The Group provides a proper working environment conforms with labor regulations to our employees. Therefore, we have set up a human resources management system, which listed out detailed information relating to recruitment, promotion, working hours and other employee benefits, in order to comply with related labour laws and regulations. We also provide our employees with a pleasant and green working environment, follow the anti-discrimination laws, and encourage diversification of skills of working teams.

Our equal opportunity policy ensures applicants or employees are treated equally when seeking a job or working in the Group, and will not deprive of their rights because of their sex, age, race, pregnancy, disability, marital or family status. The management takes review from time to time on the salary level within the industry and makes adjustment to the Group's salary policy accordingly.

Health and Safety

In addition to standard employee benefits, the Group also provides regular physical examination, and arranges internal recreation club activities and competitions to ensure the physical and mental health of employees and enhance their sense of belongings to the Group.

Development and Training

The Group provides on-the-job training, technical exchanges, holds seminars and group learning activities for employees and managements to enhance their understanding on the industry trends and technological development and strengthen their professional skills and knowledge. All of which will help to employees' long-term technology and business development.

Labor Standards

The Group strictly abides the Labor Law of the People's Republic of China and any social insurance related laws and regulations; overseas subsidiaries and branch offices also comply with related labor laws and regulations enforced in the countries and regions they operated. The Group sets up a system to state clear guidelines for hiring, salary levels, promotion, benefits, and retirement etc., in order to guarantee the relationship, rights and interest of both employer and employees.

Operating Practices

Supply Chain Management

The Group has a complete supplier selection system, all the suppliers have to pass the assessment on their qualifications and material supplies. All the suppliers of the Group are well-known enterprises in the industry, having large equipment configuration and considerable technical capabilities. The Group assesses the elements of cost, working environment, compliance with labor and social environmental laws and the protection of intellectual property, so as to evaluate and select suitable suppliers comprehensively.

Environmental, Social and Governance Report

SOCIAL *(Continued)*

Operating Practices *(Continued)*

Product Responsibility

Quality control

The basis for the survival of the Group is to provide satisfactory products and services to the customers; take the development of customers as the Group's foundation of development; and protecting the environment for the survival of the Group and its customers is the premise of sustainable operations. The Group's products completely meet the design of functional specifications; thus, its products provided to the customers are with competitiveness in the international markets. The Group develops relevant management policies, including strict quality control, satisfaction survey and after-sales services, to ensure the Group's products are produced by qualified materials and manufacturing processes in accordance with product safety requirements from related laws and regulations.

Intellectual property rights protection

The Group has many self-developed intellectual property rights, and the industry has paid great attention on intellectual property rights. The Group's operations must involve the use of the intellectual property rights of itself, customers or suppliers. Therefore, an extremely rigorous system for the protection of intellectual property rights has been established, includes adding intellectual property protection clauses when entering into contracts with customers or suppliers in order to protect the intellectual property rights of all parties, and to ensure the related staff to comply with all relevant laws and regulations.

Physical standards

The Group has established the Physical Standards on Environmental Management, using environmental technology in order to manufacture and provide environmentally friendly products, and disallows the usage of any prohibited raw materials in our products and manufacturing processes.

The Group provides our customers with lead-free and halogen-free solutions, and complies with the standards set under the RoHS2.0 on the restriction of the use of certain hazardous substances in electrical and electronic equipment and the REACH on the restriction of chemicals regulated by the European Union

Anti-corruption

The operations of companies in the Group comply with the laws and regulations in China and the counties and regions where they operated, and it is forbidden to use any opportunity or authority to obtain personal benefits or interest, as stated in the employment contract.

The Group has internal monitor system to avoid conflicts of interest and different levels of approvals in its business operations.

Community

Community Investment

The Group promotes its staff to join activities and contribute to the local communities in which the group companies operate. The Group educates and cultivates staff with a view to improve their social responsibility awareness, and actively encourages staff to volunteer their leisure hours to participate in activities for improving of local communities and environment. The Group will try its best endeavors to increase investment in communities in order to build a better environment.

Report of the Directors

The directors present their report and the audited financial statements of Shanghai Fudan Microelectronics Group Company Limited (the “Company”) and its subsidiaries (collectively referred to as the “Group”) for the year ended 31 December 2019.

PRINCIPAL ACTIVITIES AND BUSINESS REVIEW

The principal activities of the Company consist of designing, developing and selling products of application-specific integrated circuits. There were no significant changes in the nature of the Group’s principal activities during the year.

Further discussion and analysis of these activities, including a description of the principal risks and uncertainties facing the Group and an indication of likely future development in the Group’s business, can be found in the Management Discussion and Analysis set out on pages 3 to 11 of this annual report. This discussion forms part of this directors’ report.

RESULTS AND DIVIDENDS

The Group’s loss for the year ended 31 December 2019 and the Group’s financial position at that date are set out in the financial statements on pages 49 to 52.

The directors did not recommend the payment of final dividend in respect of the year to shareholders.

SUMMARY FINANCIAL INFORMATION

A summary of the published results and assets, liabilities and non-controlling interests of the Group for the last five financial years, as extracted from the audited financial statements, is set out on pages 151 to 152. This summary does not form part of the audited financial statements.

SHARE CAPITAL

A summary of movements in the Company’s share capital is set out in note 27 to the financial statements.

PRE-EMPTIVE RIGHTS

There are no provisions for pre-emptive rights under the Company’s articles of association or the laws of the People’s Republic of China (the “PRC”) which would oblige the Company to offer new shares on a pro rata basis to existing shareholders.

PURCHASE, REDEMPTION OR SALE OF LISTED SECURITIES OF THE COMPANY

Neither the Company, nor any of its subsidiaries purchased, redeemed or sold any of the Company’s listed securities during the year.

DISTRIBUTABLE RESERVES

According to the relevant regulations of the PRC, the amount of retained profits available for distribution is the lower of the amount determined under PRC accounting standards and the amount determined under Hong Kong Financial Reporting Standards. At 31 December 2019, the Company's reserves available for distribution amounted to RMB970,798,000, and no final dividend has been proposed for the year.

MAJOR CUSTOMERS AND SUPPLIERS

In the year under review, sales to the Group's five largest customers accounted for 22% of the total sales for the year and sales to the largest customer included therein amounted to 6%. Purchases from the Group's five largest suppliers accounted for 74% of the total purchases for the year and purchase from the largest supplier included therein amounted to 49%.

None of the directors of the Company or any of their associates or any shareholders (which, to the best knowledge of the directors, own more than 5% of the Company's issued share capital) had any beneficial interest in the Group's five largest suppliers and customers.

DIRECTORS

The directors of the Company during the year were:

Executive directors:

Mr. Jiang Guoxing
Mr. Shi Lei
Mr. Yu Jun
Ms. Cheng Junxia

Non-executive directors:

Ms. Zhang Qianling
Mr. Ma Zhicheng
Ms. Zhang Huajing
Mr. Wu Ping (Appointed on 16 August 2019)
Mr. Yao Fuli (Resigned on 16 August 2019)

Independent non-executive directors:

Mr. Guo Li
Mr. Cao Zhongyong (Appointed on 3 June 2019)
Mr. Cai Minyong (Appointed on 3 June 2019)
Mr. Wang Pin (Appointed on 3 June 2019)
Mr. Cheung Wing Keung (Resigned on 3 June 2019)
Mr. Chen Baoying (Resigned on 3 June 2019)
Mr. Lin Fujiang (Resigned on 3 June 2019)

Report of the Directors

DIRECTORS *(continued)*

The Company has received annual confirmations of independence from Mr. Guo Li, Mr. Cao Zhongyong, Mr. Cai Minyong and Mr. Wang Pin, and as at the date of this report, still considers them to be independent.

DIRECTORS' AND SENIOR MANAGEMENT'S BIOGRAPHIES

Biographical details of the directors of the Company and the senior management of the Group are set out in the section headed "Directors' and Senior Management's Biographies" of the annual report.

DIRECTORS' SERVICE CONTRACTS

Except for Mr. Wu Ping, all other executive directors' non-executive directors and independent non-executive director have entered into a service contract with the Company which commenced on 3 June 2019 for three years, unless terminated by a three months' prior written notice to be given by either party without payment of compensation. Mr. Wu Ping has entered into a service contract with the Company which commenced on 16 August 2019 and will be expired on 2 June 2022, unless terminated by a three months' prior written notice to be given by either party without payment of compensation.

No director has a service contract with the Company which is not determinable by the Company within one year without payment of compensation, other than statutory compensation.

DIRECTORS' REMUNERATION

The directors' fees are subject to shareholders' approval at general meetings. Other emoluments are determined by the Company's board of directors with reference to directors' duties, responsibilities and performance and the results of the Group.

PERMITTED INDEMNITY PROVISION

A permitted indemnity provision for the benefit of the Directors is currently in force and was in force throughout the financial year. The Company has taken out and maintained directors and officers liability insurance which provides appropriate cover for, among others, incurred by Directors to a third party.

DIRECTORS' INTERESTS IN TRANSACTIONS, ARRANGEMENTS OR CONTRACTS

No director nor a connected entity of a director had a material interest, either directly or indirectly, in any transactions, arrangements or contracts of significance to the business of the Group to which the holding company of the Company or any of the Company's subsidiaries was a party during the year.

MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the business of the Company were entered into or were in existence during the year.

Report of the Directors

DIRECTORS' AND SUPERVISORS' INTERESTS IN SHARES AND UNDERLYING SHARES AND DEBENTURES

At 31 December 2019, the interests of the directors and supervisors of the Company in the share capital and underlying shares and debentures of the Company or 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 of Hong Kong Limited (the “Hong Kong Stock Exchange”) pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers, were as follows:

Long positions in domestic shares of the Company:

	Number of issued shares held, capacity and nature of interest			Total	Percentage of the Company's issued share capital
	Directly beneficially owned	Through spouse or minor children	Through controlled corporation		
Directors					
Mr. Jiang Guoxing	7,210,000	–	–	7,210,000	1.04
Mr. Shi Lei	7,210,000	–	–	7,210,000	1.04
	14,420,000	–	–	14,420,000	
Supervisor					
Ms. Zhang Yanfeng	–	–	294,000	294,000	0.04

Report of the Directors

DIRECTORS' AND SUPERVISORS' INTERESTS IN SHARES AND UNDERLYING SHARES AND DEBENTURES *(continued)*

Long positions in H shares of the Company:

	Number of issued shares held, capacity and nature of interest				Percentage of the Company's issued share capital
	Directly beneficially owned	Through spouse or minor children	Through controlled corporation	Total	
Supervisor					
Ms. Zhang Yanfeng	–	277,800	–	277,800	0.04

Save as disclosed above, as at 31 December 2019, none of the directors or supervisors had registered an interest or short position in the shares, underlying shares or debentures of the Company or any of its associated corporations that was required to be recorded pursuant to section 352 of the SFO, or as otherwise notified to the Company and the Hong Kong Stock Exchange pursuant to the Model Code for Securities Transactions by Directors of Listed Issuers.

At no time during the year 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 spouses 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.

CONTRACT OF SIGNIFICANCE

No contracts of significance in relation to the Group's business in which the Company, any of its subsidiaries, or fellow subsidiaries, or its parent company was a party and in which a director of the Company had a material interest, whether directly or indirectly, subsisted during or at the end of the year.

Report of the Directors

SUBSTANTIAL SHAREHOLDERS' AND OTHER PERSONS' INTERESTS IN SHARES AND UNDERLYING SHARES

At 31 December 2019, 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	Notes	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 High Tech Company ("Fudan High Tech")	(1)	Directly beneficially owned	106,730,000	Domestic shares	26.02	15.37
Shanghai Fudan Asset Management Co., Ltd. ("Fudan Asset")	(1)	Interest of corporation controlled	106,730,000	Domestic shares	26.02	15.37
Fudan University	(1)	Interest of corporation controlled	106,730,000	Domestic share	26.02	15.37
Shanghai Fudan Fukong Technology Enterprise Holdings Limited ("Fudan Fukong")	(2)	Directly beneficially owned	109,620,000	Domestic shares	26.73	15.78
Shanghai Commerce and Invest (Group) Corporation ("SCI")	(2)	Interest of corporation controlled	109,620,000	Domestic shares	26.73	15.78
Bailian Group Company Limited ("Bailian Group")	(2)	Interest of corporation controlled	109,620,000	Domestic shares	26.73	15.78
Shanghai Zhengben Corporate Management Consultant Partnership Enterprise ("Shanghai Zhengben")	(3)	Directly beneficially owned	52,167,270	Domestic shares	12.72	7.51

Report of the Directors

SUBSTANTIAL SHAREHOLDERS' AND OTHER PERSONS' INTERESTS IN SHARES AND UNDERLYING SHARES *(continued)*

Long positions in shares of the Company: *(continued)*

Name	Notes	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 Yikun Investment Consultant Partnership Enterprise ("Shanghai Yikun")	(3)	Interest of corporation controlled	66,845,110	Domestic shares	16.29	9.62
Zhang Yong	(3)	Interest of corporation controlled	66,845,110	Domestic shares	16.29	9.62
Shanghai Zhenghua Corporate Management Consultant Partnership Enterprise ("Shanghai Zhenghua")	(4)	Directly beneficially owned	47,443,420	Domestic shares	11.57	6.83
Shanghai Shanyao Industrial Limited ("Shanghai Shanyao")	(4)	Interest of corporation controlled	47,443,420	Domestic shares	11.57	6.83
Zhou Yufeng	(4)	Interest of corporation controlled	47,443,420	Domestic shares	11.57	6.83
Shanghai Guonian Corporate Management Consultant Partnership Enterprise ("Shanghai Guonian")	(5)	Directly beneficially owned	29,941,470	Domestic shares	7.30	4.31
Shanghai Danruo Investment Management Partnership Enterprise ("Shanghai Danruo")	(5)	Interest of corporation controlled	29,941,470	Domestic shares	7.30	4.31
Dazi County Dingcheng Capital Investment Limited ("Dingcheng Capital")	(5)	Interest of corporation controlled	29,941,470	Domestic shares	7.30	4.31

Report of the Directors

SUBSTANTIAL SHAREHOLDERS' AND OTHER PERSONS' INTERESTS IN SHARES AND UNDERLYING SHARES (continued)

Long positions in shares of the Company: (continued)

Name	Notes	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	Domestic shares	7.30	4.31
Zhongrong International Trust Limited ("Zhongrong International")	(5)	Interest of corporation controlled	29,941,470	Domestic shares	7.30	4.31
Jingwei Textile Machinery Co., Ltd. ("Jingwei Textile")	(5)	Interest of corporation controlled	29,941,470	Domestic shares	7.30	4.31
Springs China Opportunities Master Fund ("Springs China")	(6)	Directly beneficially owned	17,088,000	H shares	6.01	2.46
Springs China Limited	(6)	Interest of corporation controlled	17,088,000	H shares	6.01	2.46
Zhao Jun	(6)	Interest of corporation controlled	17,088,000	H shares	6.01	2.46

Notes:

- (1) Fudan High Tech is a state-owned enterprise wholly owned by Fudan Asset and Fudan Asset is wholly owned by Fudan University.
- (2) 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.
- (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.

Report of the Directors

SUBSTANTIAL SHAREHOLDERS' AND OTHER PERSONS' INTERESTS IN SHARES AND UNDERLYING SHARES *(continued)*

Long positions in shares of the Company: *(continued)*

Notes: *(continued)*

- (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 China Limited, which is beneficially owned by Zhao Jun. Accordingly, each of Spring China Limited and Zhao Jun is deemed to be interested in Spring China's interest in the Company.

Save as disclosed above, as at 31 December 2019, no person, other than the directors and supervisors of the Company, whose interests are set out in the section headed "Directors' and supervisors' interests in shares and underlying shares and debentures" 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.

CONNECTED TRANSACTIONS AND CONTINUING CONNECTED TRANSACTIONS

During the year, the Company and the Group had the following connected and continuing connected transactions, certain details of which are disclosed in compliance with the requirements of Chapter 14A of the Rules Governing the Listing of Securities on the Hong Kong Stock Exchange (the "Listing Rules").

Connected transactions

Except for the continuing connected transactions disclosed below, details of certain connected transactions of the Group are also set out in note 35 to the financial statements.

Continuing connected transactions

On 12 August 2003, the Company and Fudan University ("SFU") entered into an agreement under which the Company was required to pay a technical and equipment support fee to SFU based on a price mutually agreed by the two parties. The Company expects that the total transaction amount with SFU will be with an annual cap during 2019 of RMB800,000 (2018: RMB800,000), and the Company paid RMB57,000 in 2019 (2018: RMB69,000).

CONNECTED TRANSACTIONS AND CONTINUING CONNECTED TRANSACTIONS *(continued)*

Continuing connected transactions *(continued)*

On 18 January 2010, the Company entered into a co-operation agreement with Shanghai Fukong Hualong Micro-system Technology Co., Ltd. (“Fukong Hualong”), a 38.25% owned associate of the Company, for the research and development of electricity meter IC chips (“Smart Meter Agreement”) for a co-operation term commencing from the date of signing the agreement up to the termination of product life. The resultant intellectual proprietary rights would be shared equally by both parties. Under the Smart Meter Agreement, after deducting the production costs, revenue derived from the product would be shared by the Company and Fukong Hualong based on two sales volume levels at the ratios of 82% to 18% and 88% to 12%, respectively. As the products contemplated under the Smart Meter IC Chips Agreement have to be upgraded to a new version due to market changes, on 16 April 2015, the Company entered into a supplementary agreement with Fukong Hualong with a single revised revenue sharing of 88% to 12% for a term of two years. On 10 April 2017, the Company further entered into a supplementary agreement with Fukong Hualong to extend the original contract for three years. The annual caps for the profit sharing payable to Fukong Hualong for the two years ended 31 December 2018 and 2019 are RMB RMB800,000 and RMB500,000. During 2019, profit of RMB181,000 should be shared to Fukong Hualong (2018: RMB130,000).

On 24 June 2009, the Company entered into a co-operation agreement with Fukong Hualong for the setting up a jointly developed “Chip & System” mode (“Cooperation Agreement”) with a view to explore markets in global positioning system (“GPS”), smart video player and mobile payment. Based on the previous cooperation result, on 23 April 2012, the Company entered into a cooperation agreement with Fukong Hualong for the product development of satellite navigation IC chips (“Satellite Navigation Agreement”) for a term starting from the agreement date up to the end of the estimated product life which is about 3 years. Pursuant to the Satellite Navigation Agreement, the Company and Fukong Hualong will carry out two cooperation modules respectively in project mode and product sales mode. The cooperation agreement expired on 22 April 2015 and because of further function upgrade requirements, on 16 April 2015, the Company renewed the original agreement for another two years. On 10 April 2017, the Company further renewed the original agreement for another three years.

According to the renewed Satellite Navigation Agreement, under the project mode, the Company will be the primary applicant for the government grants. The Company will use the grants for research and development expenditures of government grant projects and will pay part of the grants to Fukong Hualong according to Fukong Hualong’s contributions in the projects and negotiations between the parties, with annual caps of RMB4,500,000 and RMB4,500,000 for the years ended 31 December 2018 and 2019. During 2019, the Company has distributed RMB1,311,000 (2018: RMB849,000) of R&D income to Fukong Hualong.

Report of the Directors

CONNECTED TRANSACTIONS AND CONTINUING CONNECTED TRANSACTIONS *(continued)*

Continuing connected transactions *(continued)*

Based on the above-mentioned project sales mode, both parties, having realised that there are prospects in product industrialisation, have entered into cooperation under product sales mode. The Company will be responsible for the production of qualified IC chips and Fukong Hualong will be responsible for product marketing. Both parties will determine a market selling price with reference to the production costs, selling and distribution costs and market conditions (“Market Selling Price”). According to the renewed Satellite Navigation Agreement, the Company will sell products to Fukong Hualong at a price based on production costs plus a gross profit (according to the Satellite Navigation Agreement signed in April 2012: production cost plus 50% gross profit) and with reference to Market Selling Price. The annual caps relating to the Company’s sales of products to Fukong Hualong are RMB5,000,000 and RMB5,000,000 for the years ended 31 December 2018 and 2019. In 2019, the Company sold related products of RMB1,207,000 (2018: RMB1,867,000) to Fukong Hualong.

As the nature of the transactions contemplated under the Smart Meter Agreement, the Satellite Navigation Agreement and the Electronic Identification IC Chips Agreement is similar and will continue, pursuant to rule 14A.81 of the Listing Rules, these transactions should be aggregated. As such, the Company expects that the total transaction amount will be with an annual cap during 2018 and 2019 of RMB10,300,000 and RMB10,000,000, respectively. The Company will pay RMB181,000 for Smart Meter Agreement (2018: RMB130,000) and has paid RMB1,311,000 for Satellite Navigation Agreement (2018: RMB849,000) of R&D expense compensation to Fukong Hualong during 2019. Fukong Hualong paid RMB1,207,000 (2018: RMB1,867,000) to the Company for the purchase of products during 2019.

The independent non-executive directors of the Company have reviewed the continuing connected transactions set out above and have confirmed that these continuing 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.

Ernst & Young, the Company’s auditors, were engaged to report on the Group’s continuing connected transactions in accordance with Hong Kong Standard on Assurance Engagements 3000 *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* and with reference to Practice Note 740 *Auditor’s Letter on Continuing Connected Transactions under the Hong Kong Listing Rules* issued by the Hong Kong Institute of Certified Public Accountants. Ernst & Young have issued their unqualified letter containing their findings and conclusions in respect of the continuing connected transactions disclosed above by the Group in accordance with Listing Rules 14A.56. A copy of the auditors’ letter has been provided by the Company to the Hong Kong Stock Exchange.

Report of the Directors

SUFFICIENCY OF PUBLIC FLOAT

Based on information that is publicly available to the Company and within the knowledge of the directors, at least 25% of the Company's total issued share capital was held by the public as at the date of this report.

DIRECTORS' INTERESTS IN A COMPETING BUSINESS

During the year and up to the date of this report, 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.

CORPORATE GOVERNANCE CODE

In the opinion of the directors, the Company has complied with the code provisions set out in the Corporate Governance Code (the "CG Code") contained in Appendix 14 of the Listing Rules throughout the accounting period covered by the annual report, save and except the code provision A.6.7 of the CG Code.

A report on the principal corporate governance practices adopted by the Company is set out in the section headed "Corporate Governance Report" of the annual report.

AUDITORS

Ernst & Young retire and a resolution for their reappointment as auditors of the Company will be proposed at the forthcoming AGM.

ON BEHALF OF THE BOARD

Jiang Guoxing

Chairman

Shanghai, the PRC

25 March 2020

Independent auditor's report



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To the shareholders of Shanghai Fudan Microelectronics Group Company Limited

(Established in the People's Republic of China with limited liability)

OPINION

We have audited the consolidated financial statements of Shanghai Fudan Microelectronics Group Company Limited (the "Company") and its subsidiaries (the "Group") set out on pages 49 to 150, which comprise the consolidated statement of financial position as at 31 December 2019, and the consolidated statement of profit or loss, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2019, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSAs") issued by the HKICPA. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report. We are independent of the Group in accordance with the HKICPA's *Code of Ethics for Professional Accountants* (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying consolidated financial statements.



KEY AUDIT MATTERS *(continued)*

Key audit matter	How our audit addressed the key audit matter
<p><i>Deferred development costs</i></p> <p>As at 31 December 2019, the carrying amount of deferred development costs was RMB157,011,000. Expenditure incurred in developing new products is capitalised and deferred upon meeting the criteria as described in Hong Kong Accounting Standard 38 <i>Intangible Assets</i>. The balances and transactions of deferred development costs were material to the consolidated financial statements and management exercised judgement and made estimation in determining the eligibility of the costs for capitalisation, the useful commercial lives and impairment, if any, of the capitalised development costs.</p> <p>The Group's disclosures about development costs capitalised are included in note 2.4 Summary of Significant Accounting Policies, note 3 Significant Accounting Judgements and Estimates and note 15 Other Intangible Assets to the financial statements.</p>	<p>Our audit procedures included, among others, evaluating the internal controls adopted by management in capitalising the deferred development costs, performing tests on the criteria for initial recognition, costs capitalised and assessing the timeliness of the commencement of amortisation when the asset was available for use.</p> <p>We reviewed the assumptions and methodologies used by management in estimating the useful economic lives and performing impairment assessment on development costs focusing on the estimates surrounding future economic cash flows.</p>
<p><i>Provision for inventories</i></p> <p>As at 31 December 2019, the carrying amount of inventories was RMB588,078,000. The balance of inventories was material to the consolidated financial statements and management made exercised estimation in determining the write-down of inventories to net realisable value based on an assessment of the realisability of inventories and the provision for slow-moving inventories based on the analysis of historical and subsequent usage or sales of inventories.</p> <p>The Group's disclosures about inventories are included in note 2.4 Summary of Significant Accounting Policies, note 3 Significant Accounting Judgements and Estimates, note 6 (Loss)/profit before Tax and note 19 Inventories to the financial statements.</p>	<p>We assessed the process, methods and assumptions used to determine the provision for inventories. These included comparing management's calculations for consistency against those used in the prior year and considering whether there was any indication of management bias.</p> <p>We tested the underlying data used by management to calculate the provision for obsolete inventories, typically an aged inventory analysis, by re-performing the ageing calculation. We compared the historical and subsequent sales and usage information of inventories. We also tested the calculation by assessing the calculation criteria, testing the estimated selling prices and estimated costs to be incurred to completion and disposal, and recalculating the provision for inventories on a sampling basis.</p>

Independent auditor's report



OTHER INFORMATION INCLUDED IN THE ANNUAL REPORT

The directors of the Company are responsible for the other information. The other information comprises the information included in the Annual Report, other than the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

RESPONSIBILITIES OF THE DIRECTORS FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with HKFRSs issued by the HKICPA and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors of the Company are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors of the Company either intend to liquidate the Group or to cease operations or have no realistic alternative but to do so.

The directors of the Company are assisted by the Audit Committee in discharging their responsibilities for overseeing the Group's financial reporting process.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Our report is made solely to you, as a body, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report.

Independent auditor's report



AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS *(continued)*

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSA's will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with HKSA's, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.
- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

Independent auditor's report



AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS *(continued)*

We communicate with the Audit Committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Audit Committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in this independent auditor's report is Ho Wai Ling.

Ernst & Young
Certified Public Accountants
22/F, CITIC Tower
1 Tim Mei Avenue
Central, Hong Kong

25 March 2020

Consolidated Statement of Profit or Loss

Year ended 31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
REVENUE	5	1,454,772	1,409,630
Cost of sales		(937,993)	(766,461)
Gross profit		516,779	643,169
Other income and gains	5	161,882	149,171
Selling and distribution expenses		(85,198)	(86,696)
Administrative expenses		(148,772)	(118,712)
Impairment losses on financial assets		(5,075)	(702)
Other expenses		(582,022)	(426,534)
Finance costs		(2,599)	–
Share of profits and losses of: Associates		(1,023)	–
(LOSS)/PROFIT BEFORE TAX	6	(146,028)	159,696
Income tax expense	10	(2,933)	(30,344)
(LOSS)/PROFIT FOR THE YEAR		(148,961)	129,352
(Loss)/profit attributable to:			
Owners of the parent	12	(161,936)	107,482
Non-controlling interests		12,975	21,870
		(148,961)	129,352
(LOSS)/EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT			
Basic and diluted			
For (loss)/profit for the year	12	RMB(23.32) cents	RMB16.27 cents

Consolidated Statement of Comprehensive Income

Year ended 31 December 2019

	2019 RMB'000	2018 RMB'000
(LOSS)/PROFIT FOR THE YEAR	(148,961)	129,352
OTHER COMPREHENSIVE INCOME		
Other comprehensive income that may be reclassified to profit or loss in subsequent periods:		
Exchange differences:		
Exchange differences on translation of a foreign operation	543	1,488
Net other comprehensive income that may be reclassified to profit or loss in subsequent periods	543	1,488
Other comprehensive income that will not be reclassified to profit or loss in subsequent periods:		
Equity investments designated at fair value through other comprehensive income:		
Changes in fair value	2,525	2,002
Income tax effect	(379)	(200)
Net other comprehensive income that will not be reclassified to profit or loss in subsequent periods	2,146	1,802
OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF TAX	2,689	3,290
TOTAL COMPREHENSIVE (LOSS)/INCOME FOR THE YEAR	(146,272)	132,642
Total comprehensive (loss)/income attributable to:		
Owners of the parent	(159,247)	110,772
Non-controlling interests	12,975	21,870
	(146,272)	132,642

Consolidated Statement of Financial Position

31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
NON-CURRENT ASSETS			
Property, plant and equipment	13	423,120	395,163
Right-of-use assets	14	41,590	–
Prepayments for equipment		3,076	8,946
Other intangible assets	15	176,520	191,068
Investments in associates	16	55,943	3,000
Equity investments designated at fair value through other comprehensive income	17	31,119	28,475
Financial assets at fair value through profit or loss	18	1,395	1,373
Deferred tax assets	26	7,679	6,249
Total non-current assets		740,442	634,274
CURRENT ASSETS			
Inventories	19	588,078	606,048
Trade and bills receivables	20	643,942	562,491
Prepayments, other receivables and other assets	21	20,500	37,367
Tax recoverable		–	11,264
Cash and bank balances	22	465,410	695,350
Total current assets		1,717,930	1,912,520
CURRENT LIABILITIES			
Trade payables	23	136,531	147,317
Other payables, accruals and deferred income	24	289,066	267,895
Other borrowings	25	10,702	–
Tax payable		657	1,944
Total current liabilities		436,956	417,156
NET CURRENT ASSETS		1,280,974	1,495,364
TOTAL ASSETS LESS CURRENT LIABILITIES		2,021,416	2,129,638

Consolidated Statement of Financial Position (*Continued*)

31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
NON-CURRENT LIABILITIES			
Other borrowings	25	32,860	—
Deferred revenue	24	47,763	20,070
Deferred tax liabilities	26	2,507	2,128
Total non-current liabilities		83,130	22,198
Net assets		1,938,286	2,107,440
EQUITY			
Equity attributable to owners of the parent			
Share capital	27	69,450	69,450
Other reserves	29	1,715,146	1,873,156
		1,784,596	1,942,606
Non-controlling interests		153,690	164,834
Total equity		1,938,286	2,107,440

Shi Lei
Director

Cheng Junxia
Director

Consolidated Statement of Changes in Equity

Year ended 31 December 2019

Attributable to owners of the parent										
				Fair value reserve of financial assets at fair value						
	Share capital	Share premium account	Statutory surplus reserve	through other comprehensive income	Exchange fluctuation reserve	Other reserves	Retained profits	Total	Non- controlling interests	Total equity
Notes	RMB'000 (note 27)	RMB'000 (note 29)	RMB'000 (note 29)	RMB'000	RMB'000	RMB'000 (note 29)	RMB'000	RMB'000	RMB'000	RMB'000
At 1 January 2018	65,933	348,489	49,472	–	(3,101)	14,743	1,141,506	1,617,042	154,234	1,771,276
Effect of adoption of HKFRS 9	–	–	–	8,841	–	–	5,167	14,008	–	14,008
At 1 January 2018 (restated)	65,933	348,489	49,472	8,841	(3,101)	14,743	1,146,673	1,631,050	154,234	1,785,284
Profit for the year	–	–	–	–	–	–	107,482	107,482	21,870	129,352
Other comprehensive income for the year										
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax	–	–	–	1,802	–	–	–	1,802	–	1,802
Exchange differences on translation of foreign operations	–	–	–	–	1,488	–	–	1,488	–	1,488
Total comprehensive income for the year	–	–	–	1,802	1,488	–	107,482	110,772	21,870	132,642
Issue of shares	27	3,517	198,019	–	–	–	–	201,536	–	201,536
Share issue expenses	–	(821)	–	–	–	–	–	(821)	–	(821)
Equity-settled share-based expense	28	–	69	–	–	–	–	69	–	69
Dividends paid to non-controlling shareholders	–	–	–	–	–	–	–	–	(11,270)	(11,270)
Transfer from retained profits	–	–	2,531	–	–	–	(2,531)	–	–	–
At 31 December 2018	69,450	545,756	52,003	10,643	(1,613)	14,743	1,251,624	1,942,606	164,834	2,107,440

Consolidated Statement of Changes in Equity (Continued)

Year ended 31 December 2019

	Notes	Attributable to owners of the parent									
		Share capital RMB'000 (note 27)	Share premium account RMB'000 (note 29)	Statutory surplus reserve RMB'000 (note 29)	Fair value reserve of financial assets at fair value			Other reserves RMB'000 (note 29)	Retained profits RMB'000 (note 29)	Non-controlling interests RMB'000	Total equity RMB'000
					through comprehensive income RMB'000	Exchange fluctuation reserve RMB'000	Other				
Share capital RMB'000 (note 27)	Share premium account RMB'000 (note 29)	Statutory surplus reserve RMB'000 (note 29)	through comprehensive income RMB'000	Exchange fluctuation reserve RMB'000	Other	Retained profits RMB'000 (note 29)	Total RMB'000	Non-controlling interests RMB'000	Total equity RMB'000		
At 1 January 2019		69,450	545,756	52,003	10,643	(1,613)	14,743	1,251,624	1,942,606	164,834	2,107,440
(Loss)/profit for the year		-	-	-	-	-	-	(161,936)	(161,936)	12,975	(148,961)
Other comprehensive income for the year											
Changes in fair value of equity investments at fair value through other comprehensive income, net of tax		-	-	-	2,146	-	-	-	2,146	-	2,146
Exchange differences on translation of foreign operations		-	-	-	-	543	-	-	543	-	543
Total comprehensive (loss)/income for the year		-	-	-	2,146	543	-	(161,936)	(159,247)	12,975	(146,272)
Disposal of a subsidiary	31	-	-	(997)	-	-	-	914	(83)	(14,725)	(14,808)
Equity-settled share-based expense	28	-	1,320	-	-	-	-	-	1,320	-	1,320
Dividends paid to non-controlling shareholders		-	-	-	-	-	-	-	-	(9,394)	(9,394)
Transfer from retained profits		-	-	1,960	-	-	-	(1,960)	-	-	-
At 31 December 2019		69,450	547,076*	52,966*	12,789*	(1,070)*	14,743*	1,088,642*	1,784,596	153,690	1,938,286

* These reserve accounts comprise the consolidated reserves of RMB1,715,146,000 (2018: RMB1,873,156,000) in the consolidated statement of financial position.

Consolidated Statement of Cash Flows

Year ended 31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
CASH FLOWS FROM OPERATING ACTIVITIES			
(Loss)/profit before tax		(146,028)	159,696
Adjustments for:			
Finance costs		2,599	128
Share of profits and losses of associates		1,023	–
Bank interest income	5, 6	(8,042)	(10,600)
Loss on disposal of items of property, plant and equipment and intangible assets	6	11,614	19,474
Gain on loss control of a subsidiary	5	(24,845)	–
Impairment losses on financial assets		5,075	702
Depreciation	13	82,654	81,825
Depreciation of right-of-use assets	14	10,595	–
Impairment of intangible assets	15	9,832	–
Amortisation of other intangible assets	15	56,558	29,473
Equity settled share-based expense		1,320	69
		2,355	280,767
Decrease/(increase) in inventories		13,036	(238,942)
Increase in trade and bills receivables		(97,085)	(458)
Decrease in prepayments and other assets		15,927	1,870
Decrease/(increase) in deposits and other receivables		2,991	(439)
(Decrease)/increase in trade payables		(7,993)	16,170
Increase/(decrease) in other payables and accruals		52,384	(8,593)
		(18,385)	50,375
Cash (used in)/generated from operations		(18,385)	50,375
Hong Kong profits tax paid		–	(409)
United States of America profits tax paid		(6)	(5)
Mainland China tax refunded		5,619	12,902
		(12,772)	62,863
Net cash flows (used in)/from operating activities		(12,772)	62,863

Consolidated Statement of Cash Flows (Continued)

Year ended 31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
Net cash flows (used in)/from operating activities		(12,772)	62,863
CASH FLOWS FROM INVESTING ACTIVITIES			
Bank interest received		9,468	10,600
Decrease/(increase) in time deposits with original maturity of over three months when acquired	22	195,618	(54,556)
Purchases of items of property, plant and equipment		(124,288)	(127,535)
Proceeds from disposal of items of property, plant and equipment		29	233
Additions to other intangible assets	15	(74,833)	(79,412)
Purchase of equity investments designated at fair value through other comprehensive income		–	(3,774)
Purchase of financial assets at fair value through profit or loss		–	(1,373)
Purchase of a shareholding in an associate		–	(3,000)
Disposal of a subsidiary	31	(9,837)	–
Net cash flows used in investing activities		(3,843)	(258,817)
CASH FLOWS FROM FINANCING ACTIVITIES			
New bank loans		46,760	28,398
Repayment of bank loans		(46,760)	(28,398)
Interest paid		(2,599)	(128)
Proceeds from issue of shares		–	201,536
Share issue expenses		–	(821)
Principal portion of lease payments	32(b)	(8,623)	–
Dividends paid to non-controlling shareholders		(9,394)	(11,270)
Net cash flows (used in)/generated from financing activities		(20,616)	189,317

Consolidated Statement of Cash Flows (*Continued*)

Year ended 31 December 2019

	Notes	2019 RMB'000	2018 RMB'000
Net cash flows (used in)/generated from financing activities		(20,616)	189,317
NET DECREASE IN CASH AND CASH EQUIVALENTS		(37,231)	(6,636)
Cash and cash equivalents at beginning of year		304,878	310,193
Effect of foreign exchange rate changes, net		408	1,321
CASH AND CASH EQUIVALENTS AT END OF YEAR		268,055	304,878
ANALYSIS OF BALANCES OF CASH AND CASH EQUIVALENTS			
Cash on hand and demand deposits	22	193,174	172,973
Non-pledged time deposits	22	272,236	522,377
Cash and bank balances as stated in the consolidated statement of financial position	22	465,410	695,350
Time deposits with original maturity of over three months when acquired	22	(197,355)	(390,472)
Cash and cash equivalents as stated in the consolidated statement of cash flows		268,055	304,878

Notes to Financial Statements

31 December 2019

1. CORPORATE AND GROUP INFORMATION

Shanghai Fudan Microelectronics Group Company Limited (the “Company”, formerly known as Shanghai Fudan Microelectronics Company Limited) is a limited liability company established in Shanghai, the People’s Republic of China (the “PRC”). The registered office of the Company is located at No. 220 Handan Road, Shanghai, the PRC. The Company has established a place of business in Hong Kong, which is located at Flat 6, 5/F., East Ocean Centre, 98 Granville Road, Tsimshatsui East, Kowloon.

The principal activities of the subsidiaries are the provision of testing services for integrated circuit (“IC”) products; designing, developing and selling IC testing software and products; the production of probe cards; as well as the provision of research and consultancy services of IC technology.

The Company’s principal activities have not changed during the year and consist of the design, development and sale of products of application-specific IC.

Information about subsidiaries

Particulars of the Company’s subsidiaries are as follows:

Name	Place of incorporation/ registration and place of operations	Issued ordinary/ registered share capital	Percentage of equity attributable to the Company		Principal activities
			Direct	Indirect	
Sino IC Technology Co., Ltd. (“Sino IC”) *	People’s Republic of China/ Mainland China	RMB189,000,000	50.30	–	Provision of testing services for IC products; designing, developing and selling IC testing software; production of probe cards; and the provision of research and consultancy services of IC technology
Shanghai Fudan – Microelectronics (HK) Limited	Hong Kong	HK\$30,400,000	100	–	Developing and selling IC products
Shenzhen Fudan Microelectronics Company Limited (“SZFM”) **	People’s Republic of China/ Mainland China	RMB5,000,000	100	–	Designing, developing and selling IC products
Beijing Fudan Microelectronics Technology Co., Ltd. (“BJFM”) **	People’s Republic of China/ Mainland China	RMB10,000,000	100	–	Designing, developing and selling IC products
Fudan Microelectronics (USA) Inc.***	United States of America	USD3,000,100	–	100	Developing and selling IC products

Notes to Financial Statements

31 December 2019

1. CORPORATE AND GROUP INFORMATION *(continued)*

Information about subsidiaries *(continued)*

Particulars of the Company's subsidiaries are as follows: *(continued)*

* Sino IC is registered as a contractual joint venture company under PRC law. Sino IC is treated as a subsidiary, as the Company has unilateral control directly over Sino IC. In April 2014, Sino IC increased its issued capital from 31,000,000 shares to 42,000,000 shares, of which the Company subscribed and paid up 1,006,000 shares. Upon completion of the capital injection, the Company's shareholding in the equity interest of Sino IC decreased from 64.9% to 50.3%. In 2016, Sino IC increased its share capital from 84,000,000 shares to 126,000,000 shares by transferring RMB42,000,000 out of the retained earnings to the share capital. In 2017, Sino IC increased its share capital from 126,000,000 shares to 189,000,000 shares by transferring RMB63,000,000 out of the retained earnings to the share capital.

** SZFM and BJFM are wholly-owned subsidiaries of the Company established in 2007. Both of them are registered as limited liability companies under PRC law, not audited by Ernst & Young, Hong Kong or another member firm of the Ernst & Young global network.

During the year, the Company made a capital injection of RMB4,000,000 to BJFM to increase its issued capital from RMB6,000,000 to RMB10,000,000.

*** Fudan Microelectronics (USA) Inc. is a wholly-owned subsidiary incorporated in 2016. Fudan Microelectronics (USA) Inc. was not audited by Ernst & Young, Hong Kong or another member firm of the Ernst & Young global network.

**** Fukong Hualong is a subsidiary of the Company acquired during 2008, which is registered as a contractual joint venture company under PRC law. In December 2016, Fukong Hualong increased its issued capital from 30,000,000 shares to 40,000,000 shares, of which the Company subscribed nil shares. Upon completion of the capital injection, the Company's equity holding in Fukong Hualong decreased from 51% to 38.25%. The new equity holder, which holds a 25% equity interest in Fukong Hualong, has agreed to act in concert with the Company over Fukong Hualong's operating, investing and financing decisions. The directors of the Company consider that Fukong Hualong is under the unilateral control of the Group and regarded Fukong Hualong as a subsidiary of the Company which is consolidated in the Group's financial statements. Fukong Hualong was not audited by Ernst & Young, Hong Kong or another member firm of the Ernst & Young global network.

On September 30 2019, the new equity holder holding a 25% equity interest in Fukong Hualong terminated the concert with the Company. At the point of termination, the Company's holding ratio remained at 38.25% but Fukong Hualong is no longer under the unilateral control of the Group and Fukong Hualong is regarded as an associate of the Group. Upon the cancellation of concerted agreement, Fukong Hualong is subject to significant influence of the Group and had been accounted for under the equity method since 1 October 2019.

2.1 BASIS OF PREPARATION

These financial statements have been prepared in accordance with Hong Kong Financial Reporting Standards ("HKFRSs") (which include all Hong Kong Financial Reporting Standards, Hong Kong Accounting Standards ("HKASs") and Interpretations) issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"), accounting principles generally accepted in Hong Kong and the disclosure requirements of the Hong Kong Companies Ordinance. They have been prepared under the historical cost convention, except for financial instruments and equity investments which have been measured at fair value. These financial statements are presented in Renminbi ("RMB") and all values are rounded to the nearest thousand except when otherwise indicated.

Basis of consolidation

The consolidated financial statements include the financial statements of the Company and its subsidiaries (collectively referred to as the "Group") for the year ended 31 December 2019. A subsidiary is an entity (including a structured entity), directly or indirectly, controlled by the Company. 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 (i.e., existing rights that give the Group the current ability to direct the relevant activities of the investee).

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2.1 BASIS OF PREPARATION *(continued)*

Basis of consolidation *(continued)*

When the Company has, directly or indirectly, less than a majority of the voting or similar rights of an investee, the Group considers all relevant facts and circumstances in assessing whether it has power over an investee, including:

- (a) the contractual arrangement with the other vote holders of the investee;
- (b) rights arising from other contractual arrangements; and
- (c) the Group's voting rights and potential voting rights.

The financial statements of the subsidiaries are prepared for the same reporting period as the Company, using consistent accounting policies. The results of subsidiaries are consolidated from the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Profit or loss and each component of other comprehensive income are attributed to the owners of the parent of the Group and to the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. All intra-group assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control described above. A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction.

If the Group loses control over a subsidiary, it derecognises (i) the assets (including goodwill) and liabilities of the subsidiary, (ii) the carrying amount of any non-controlling interest and (iii) the cumulative translation differences recorded in equity; and recognises (i) the fair value of the consideration received, (ii) the fair value of any investment retained and (iii) any resulting surplus or deficit in profit or loss. The Group's share of components previously recognised in other comprehensive income is reclassified to profit or loss or retained profits, as appropriate, on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

The Group has adopted the following new and revised HKFRSs for the first time for the current year's financial statements.

Amendments to HKFRS 9	<i>Prepayment Features with Negative Compensation</i>
HKFRS 16	<i>Leases</i>
Amendments to HKAS 19	<i>Plan Amendment, Curtailment or Settlement</i>
Amendments to HKAS 28	<i>Long-term Interests in Associates and Joint Ventures</i>
HK(IFRIC)-Int 23	<i>Uncertainty over Income Tax Treatments</i>
<i>Annual Improvements to HKFRSs 2015-2017 Cycle</i>	Amendments to HKFRS 3, HKFRS 11, HKAS 12 and HKAS 23

Except for the amendments to HKFRS 9 and HKAS 19, and *Annual Improvements to HKFRSs 2015-2017 Cycle*, which are not relevant to the preparation of the Group's financial statements, the nature and the impact of the new and revised HKFRSs are described below:

- (a) HKFRS 16 replaces HKAS 17 *Leases*, HK(IFRIC)-Int 4 *Determining whether an Arrangement contains a Lease*, HK(SIC)-Int 15 *Operating Leases – Incentives* and HK(SIC)-Int 27 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*. The standard sets out the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model to recognise and measure right-of-use assets and lease liabilities, except for certain recognition exemptions. Lessor accounting under HKFRS 16 is substantially unchanged from HKAS 17. Lessors continue to classify leases as either operating or finance leases using similar principles as in HKAS 17.

HKFRS 16 did not have any significant impact on leases where the Group is the lessor.

The Group has adopted HKFRS 16 using the modified retrospective method with the date of initial application of 1 January 2019. Under this method, the standard has been applied retrospectively with the cumulative effect of initial adoption recognised as an adjustment to the opening balance of retained profits at 1 January 2019, and the comparative information for 2018 was not restated and continued to be reported under HKAS 17 and related interpretations.

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2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES *(continued)*

(a) *(continued)*

New definition of a lease

Under HKFRS 16, a contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration. Control is conveyed where the customer has both 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. The Group elected to use the transition practical expedient allowing the standard to be applied only to contracts that were previously identified as leases applying HKAS 17 and HK(IFRIC)-Int 4 at the date of initial application. Contracts that were not identified as leases under HKAS 17 and HK(IFRIC)-Int 4 were not reassessed. Therefore, the definition of a lease under HKFRS 16 has been applied only to contracts entered into or changed on or after 1 January 2019.

As a lessee – Leases previously classified as operating leases

Nature of the effect of adoption of HKFRS 16

The Group has lease contracts for various items of plant and office. As a lessee, the Group previously classified leases as either finance leases or operating leases based on the assessment of whether the lease transferred substantially all the rewards and risks of ownership of assets to the Group. Under HKFRS 16, the Group applies a single approach to recognise and measure right-of-use assets and lease liabilities for all leases, except for two elective exemptions for leases of low-value assets (elected on a lease-by-lease basis) and leases with a lease term of 12 months or less (“short-term leases”) (elected by class of underlying asset). Instead of recognising rental expenses under operating leases on a straight-line basis over the lease term commencing from 1 January 2019, the Group recognises depreciation (and impairment, if any) of the right-of-use assets and interest accrued on the outstanding lease liabilities (as finance costs).

Impact on transition

Lease liabilities at 1 January 2019 were recognised based on the present value of the remaining lease payments, discounted using the incremental borrowing rate at 1 January 2019 and included in interest-bearing bank and other borrowings. The right-of-use assets were measured at the amount of the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to the lease recognised in the statement of financial position immediately before 1 January 2019.

All these assets were assessed for any impairment based on HKAS 36 on that date. The Group elected to present the right-of-use assets separately in the statement of financial position.

The Group has used the following elective practical expedients when applying HKFRS 16 at 1 January 2019:

- Applying the short-term lease exemptions to leases with a lease term that ends within 12 months from the date of initial application
- Using hindsight in determining the lease term where the contract contains options to extend/terminate the lease
- Applying a single discount rate to a portfolio of leases with reasonably similar characteristics when measuring the lease liabilities at 1 January 2019

Notes to Financial Statements

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2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES (continued)

(a) (continued)

Financial impact at 1 January 2019

The impact arising from the adoption of HKFRS 16 at 1 January 2019 was as follows:

	Increase/(decrease) RMB\$'000
Assets	
Increase in right-of-use assets	36,615
Increase in total assets	36,615
Liabilities	
Increase in other borrowings	36,615
Increase in total liabilities	36,615

The lease liabilities as at 1 January 2019 reconciled to the operating lease commitments as at 31 December 2018 are as follows:

	RMB\$'000
Operating lease commitments as at 31 December 2018	18,040
Less: Commitments relating to short-term leases and those leases with a remaining lease term	(3,455)
Commitments relating to leases of low-value assets	(14)
Add: Payments for optional extension periods not recognised as at 31 December 2018	28,152
	42,723
Weighted average incremental borrowing rate as at 1 January 2019	4.75%-4.90%
Discounted operating lease commitments as at 1 January 2019	36,615
Lease liabilities as at 1 January 2019	36,615

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2.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES *(continued)*

- (b) Amendments to HKAS 28 clarify that the scope exclusion of HKFRS 9 only includes interests in an associate or joint venture to which the equity method is applied and does not include long-term interests that in substance form part of the net investment in the associate or joint venture, to which the equity method has not been applied. Therefore, an entity applies HKFRS 9, rather than HKAS 28, including the impairment requirements under HKFRS 9, in accounting for such long-term interests. HKAS 28 is then applied to the net investment, which includes the long-term interests, only in the context of recognising losses of an associate or joint venture and impairment of the net investment in the associate or joint venture. The Group assessed its business model for its long-term interests in associates and joint ventures upon adoption of the amendments on 1 January 2019 and concluded that the long-term interests in associates and joint ventures continued to be measured at amortised cost in accordance with HKFRS 9. Accordingly, the amendments did not have any impact on the financial position or performance of the Group.
- (c) HK(IFRIC)-Int 23 addresses the accounting for income taxes (current and deferred) when tax treatments involve uncertainty that affects the application of HKAS 12 (often referred to as “uncertain tax positions”). The interpretation does not apply to taxes or levies outside the scope of HKAS 12, nor does it specifically include requirements relating to interest and penalties associated with uncertain tax treatments. The interpretation specifically addresses (i) whether an entity considers uncertain tax treatments separately; (ii) the assumptions an entity makes about the examination of tax treatments by taxation authorities; (iii) how an entity determines taxable profits or tax losses, tax bases, unused tax losses, unused tax credits and tax rates; and (iv) how an entity considers changes in facts and circumstances. Upon adoption of the interpretation, the Group considered whether it has any uncertain tax positions arising from the transfer pricing on its intergroup sales. Based on the Group’s tax compliance and transfer pricing study, the Group determined that it is probable that its transfer pricing policy will be accepted by the tax authorities. Accordingly, the interpretation did not have any impact on the financial position or performance of the Group.

2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS

The Group has not applied the following new and revised HKFRSs, that have been issued but are not yet effective, in these financial statements.

Amendments to HKFRS 3	<i>Definition of a Business¹</i>
Amendments to HKFRS 9, HKAS 39 and HKFRS 7	<i>Interest Rate Benchmark Reform¹</i>
Amendments to HKFRS 10 and HKAS 28 (2011)	<i>Sale or Contribution of Assets between an Investor and its Associate or Joint Venture³</i>
HKFRS 17	<i>Insurance Contracts²</i>
Amendments to HKAS 1 and HKAS 8	<i>Definition of Material¹</i>

1 Effective for annual periods beginning on or after 1 January 2020

2 Effective for annual periods beginning on or after 1 January 2021

3 No mandatory effective date yet determined but available for adoption

Further information about those HKFRSs that are expected to be applicable to the Group is described below.

Amendments to HKFRS 3 clarify and provide additional guidance on the definition of a business. The amendments clarify that for an integrated set of activities and assets to be considered a business, it must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create output. A business can exist without including all of the inputs and processes needed to create outputs. The amendments remove the assessment of whether market participants are capable of acquiring the business and continue to produce outputs. Instead, the focus is on whether acquired inputs and acquired substantive processes together significantly contribute to the ability to create outputs. The amendments have also narrowed the definition of outputs to focus on goods or services provided to customers, investment income or other income from ordinary activities. Furthermore, the amendments provide guidance to assess whether an acquired process is substantive and introduce an optional fair value concentration test to permit a simplified assessment of whether an acquired set of activities and assets is not a business. The Group expects to adopt the amendments prospectively from 1 January 2020. Since the amendments apply prospectively to transactions or other events that occur on or after the date of first application, the Group will not be affected by these amendments on the date of transition.

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2.3 ISSUED BUT NOT YET EFFECTIVE HONG KONG FINANCIAL REPORTING STANDARDS *(continued)*

Amendments to HKFRS 9, HKAS 39 and HKFRS 7 address the effects of interbank offered rate reform on financial reporting. The amendments provide temporary reliefs which enable hedge accounting to continue during the period of uncertainty before the replacement of an existing interest rate benchmark. In addition, the amendments require companies to provide additional information to investors about their hedging relationships which are directly affected by these uncertainties. The amendments are effective for annual periods beginning on or after 1 January 2020. Early application is permitted. The amendments are not expected to have any significant impact on the Group's financial statements.

Amendments to HKFRS 10 and HKAS 28 (2011) address an inconsistency between the requirements in HKFRS 10 and in HKAS 28 (2011) in dealing with the sale or contribution of assets between an investor and its associate or joint venture. The amendments require a full recognition of a gain or loss when the sale or contribution of assets between an investor and its associate or joint venture constitutes a business. For a transaction involving assets that do not constitute a business, a gain or loss resulting from the transaction is recognised in the investor's profit or loss only to the extent of the unrelated investor's interest in that associate or joint venture. The amendments are to be applied prospectively. The previous mandatory effective date of amendments to HKFRS 10 and HKAS 28 (2011) was removed by the HKICPA in January 2016 and a new mandatory effective date will be determined after the completion of a broader review of accounting for associates and joint ventures. However, the amendments are available for adoption now.

Amendments to HKAS 1 and HKAS 8 provide a new definition of material. The new definition states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general-purpose financial statements make on the basis of those financial statements. The amendments clarify that materiality will depend on the nature or magnitude of information. A misstatement of information is material if it could reasonably be expected to influence decisions made by the primary users. The Group expects to adopt the amendments prospectively from 1 January 2020. The amendments are not expected to have any significant impact on the Group's financial statements.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Investments in associates and joint ventures

An associate is an entity in which the Group has a long-term interest of generally not less than 20% of the equity voting rights and over which it is in a position to exercise significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies.

A joint venture is a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. 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.

The Group's investments in associates and joint ventures are stated in the consolidated statement of financial position at the Group's share of net assets under the equity method of accounting, less any impairment losses. Adjustments are made to bring into line any dissimilar accounting policies that may exist. The Group's share of the post-acquisition results and other comprehensive income of associates and joint ventures is included in the consolidated statement of profit or loss and consolidated other comprehensive income, respectively. In addition, when there has been a change recognised directly in the equity of the associate or joint venture, the Group recognises its share of any changes, when applicable, in the consolidated statement of changes in equity. Unrealised gains and losses resulting from transactions between the Group and its associates or joint ventures are eliminated to the extent of the Group's investments in the associates or joint ventures, except where unrealised losses provide evidence of an impairment of the assets transferred. Goodwill arising from the acquisition of associates or joint ventures is included as part of the Group's investments in associates or joint ventures.

If an investment in an associate becomes an investment in a joint venture or vice versa, the retained interest is not remeasured. Instead, the investment continues to be accounted for under the equity method. In all other cases, upon loss of significant influence over the associate or joint control over the joint venture, the Group measures and recognises any retained investment at its fair value. Any difference between the carrying amount of the associate or joint venture upon loss of significant influence or joint control and the fair value of the retained investment and proceeds from disposal is recognised in profit or loss.

When an investment in an associate or a joint venture is classified as held for sale, it is accounted for in accordance with HKFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The consideration transferred is measured at the acquisition date fair value which is the sum of the acquisition date fair values of assets transferred by the Group, liabilities assumed by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. For each business combination, the Group elects whether to measure the non-controlling interests in the acquiree that are present ownership interests and entitle their holders to a proportionate share of net assets in the event of liquidation at fair value or at the proportionate share of the acquiree's identifiable net assets. All other components of non-controlling interests are measured at fair value. Acquisition-related costs are expensed as incurred.

When the Group acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date. This includes the separation of embedded derivatives in host contracts of the acquiree.

If the business combination is achieved in stages, the previously held equity interest is remeasured at its acquisition date fair value and any resulting gain or loss is recognised in profit or loss.

Any contingent consideration to be transferred by the acquirer is recognised at fair value at the acquisition date. Contingent consideration classified as an asset or liability is measured at fair value with changes in fair value recognised in profit or loss. Contingent consideration that is classified as equity is not remeasured and subsequent settlement is accounted for within equity.

Goodwill is initially measured at cost, being the excess of the aggregate of the consideration transferred, the amount recognised for non-controlling interests and any fair value of the Group's previously held equity interests in the acquiree over the identifiable net assets acquired and liabilities assumed. If the sum of this consideration and other items is lower than the fair value of the net assets acquired, the difference is, after reassessment, recognised in profit or loss as a gain on bargain purchase.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. Goodwill is tested for impairment annually or more frequently if events or changes in circumstances indicate that the carrying value may be impaired. The Group performs its annual impairment test of goodwill as at 31 December. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the Group are assigned to those units or groups of units.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Business combinations and goodwill *(continued)*

Impairment is determined by assessing the recoverable amount of the cash-generating unit (group of cash-generating units) to which the goodwill relates. Where the recoverable amount of the cash-generating unit (group of cash-generating units) is less than the carrying amount, an impairment loss is recognised. An impairment loss recognised for goodwill is not reversed in a subsequent period.

Where goodwill has been allocated to a cash-generating unit (or group of cash-generating units) and part of the operation within that unit is disposed of, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on the disposal. Goodwill disposed of in these circumstances is measured based on the relative value of the operation disposed of and the portion of the cash-generating unit retained.

Fair value measurement

The Group measures its equity investments at fair value at the end of each reporting period. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement is based on the presumption that the transaction to sell the asset or transfer the liability takes place either in the principal market for the asset or liability, or in the absence of a principal market, in the most advantageous market for the asset or liability. The principal or the most advantageous market must be accessible by the Group. The fair value of an asset or a liability is measured using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

The Group uses valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

All assets and liabilities for which fair value is measured or disclosed in the financial statements are categorised within the fair value hierarchy, described as follows, based on the lowest level input that is significant to the fair value measurement as a whole:

Level 1 – based on quoted prices (unadjusted) in active markets for identical assets or liabilities

Level 2 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is observable, either directly or indirectly

Level 3 – based on valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether transfers have occurred between levels in the hierarchy by reassessing categorisation (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

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2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Impairment of non-financial assets

Where an indication of impairment exists, or when annual impairment testing for an asset is required (other than inventories, deferred tax assets and financial assets), the asset's recoverable amount is estimated. An asset's recoverable amount is the higher of the asset's or cash-generating unit's value in use and its fair value less costs of disposal, and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets, in which case the recoverable amount is determined for the cash-generating unit to which the asset belongs.

An impairment loss is recognised only if the carrying amount of an asset exceeds its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. An impairment loss is charged to profit or loss in the period in which it arises in those expense categories consistent with the function of the impaired asset.

An assessment is made at the end of each reporting period as to whether there is an indication that previously recognised impairment losses may no longer exist or may have decreased. If such an indication exists, the recoverable amount is estimated. A previously recognised impairment loss of an asset other than goodwill is reversed only if there has been a change in the estimates used to determine the recoverable amount of that asset, but not to an amount higher than the carrying amount that would have been determined (net of any depreciation/amortisation) had no impairment loss been recognised for the asset in prior years. A reversal of such an impairment loss is credited to the statement of profit or loss in the period in which it arises.

Related parties

A party is considered to be related to the Group if:

- (a) the party is a person or a close member of that person's family and that person
 - (i) has control or joint control over the Group;
 - (ii) has significant influence over the Group; or
 - (iii) is a member of the key management personnel of the Group or of a parent of the Group;

or

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Related parties *(continued)*

- (b) the party is an entity where any of the following conditions applies:
- (i) the entity and the Group are members of the same group;
 - (ii) one entity is an associate or joint venture of the other entity (or of a parent, subsidiary or fellow subsidiary of the other entity);
 - (iii) the entity and the Group are joint ventures of the same third party;
 - (iv) one entity is a joint venture of a third entity and the other entity is an associate of the third entity;
 - (v) the entity is a post-employment benefit plan for the benefit of employees of either the Group or an entity related to the Group;
 - (vi) the entity is controlled or jointly controlled by a person identified in (a);
 - (vii) a person identified in (a) (i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity); and
 - (viii) the entity, or any member of a group of which it is a part, provides key management personnel services to the Group or to the parent of the Group.

Property, plant and equipment and depreciation

Property, plant and equipment, other than construction in progress, are stated at cost less accumulated depreciation and any impairment losses. When an item of property, plant and equipment is classified as held for sale or when it is part of a disposal group classified as held for sale, it is not depreciated and is accounted for in accordance with HKFRS 5. The cost of an item of property, plant and equipment comprises its purchase price and any directly attributable costs of bringing the asset to its working condition and location for its intended use.

Expenditure incurred after items of property, plant and equipment have been put into operation, such as repairs and maintenance, is normally charged to profit or loss in the period in which it is incurred. In situations where the recognition criteria are satisfied, the expenditure for a major inspection is capitalised in the carrying amount of the asset as a replacement. Where significant parts of property, plant and equipment are required to be replaced at intervals, the Group recognises such parts as individual assets with specific useful lives and depreciates them accordingly.

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31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Property, plant and equipment and depreciation *(continued)*

Depreciation is calculated on the straight-line basis to write off the cost of each item of property, plant and equipment to its residual value over its estimated useful life. The principal annual rates used for this purpose are as follows:

Land and buildings	1.9%
Machinery and office equipment	19%-33%
Motor vehicles	19%

Where parts of an item of property, plant and equipment have different useful lives, the cost of that item is allocated on a reasonable basis among the parts and each part is depreciated separately. Residual values, useful lives and the depreciation method are reviewed, and adjusted if appropriate, at least at each financial year end.

An item of property, plant and equipment including any significant part initially recognised is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on disposal or retirement recognised in the statement of profit or loss in the year the asset is derecognised is the difference between the net sales proceeds and the carrying amount of the relevant asset.

Construction in progress represents machinery and other items of property, plant and equipment under construction or installation, which are stated at cost less any impairment losses, and are not depreciated. Cost comprises the direct costs of construction, installation and testing during the period of construction and capitalised borrowing costs on related borrowed funds during the period of construction. Construction in progress is reclassified to the appropriate category of property, plant and equipment when completed and ready for use.

Intangible assets (other than goodwill)

Intangible assets acquired separately are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is the fair value at the date of acquisition. The useful lives of intangible assets are assessed to be either finite or indefinite. Intangible assets with finite lives are subsequently amortised over the useful economic life and assessed for impairment whenever there is an indication that the intangible asset may be impaired. The amortisation period and the amortisation method for an intangible asset with a finite useful life are reviewed at least at each financial year end.

Changes in the expected useful life or expected pattern of consumption of future economic benefits embodied in the asset are accounted for by changing the amortisation period or method, as appropriate, and treated as changes in accounting estimates. The amortisation expense on intangible assets with finite lives is recognised in profit or loss in the expense category consistent with the function of the intangible asset.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Intangible assets (other than goodwill) *(continued)*

Licences

Purchased licences are stated at cost less any impairment losses and are amortised on the straight-line basis over their estimated useful lives of 1 to 5 years.

Research and development costs

All research costs are charged to the statement of profit or loss as incurred.

Expenditure incurred on projects to develop new products is capitalised and deferred only when the Group can demonstrate the technical feasibility of completing the intangible asset so that it will be available for use or sale, its intention to complete and its ability to use or sell the asset, how the asset will generate future economic benefits, the availability of resources to complete the project and the ability to measure reliably the expenditure during the development. Product development expenditure which does not meet these criteria is expensed when incurred.

Deferred development costs are stated at cost less any impairment losses and are amortised using the straight-line basis over the expected commercial lives of the underlying products not exceeding three years, commencing from the date when the products are put into commercial production.

Leases (applicable from 1 January 2019)

The Group assesses at contract inception whether a 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 of time in exchange for consideration.

Group as a lessee

The Group applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Group recognises lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets.

(a) Right-of-use assets

Right-of-use assets are recognised at the commencement date of the lease (that is the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and any impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognised, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease terms and the estimated useful lives of the assets as follows:

Plant and office	2-6 years
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If ownership of the leased asset transfers to the Group by the end of the lease term or the cost reflects the exercise of a purchase option, depreciation is calculated using the estimated useful life of the asset.

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Leases (applicable from 1 January 2019) *(continued)*

Group as a lessee (continued)

(b) Lease liabilities

Lease liabilities are recognised at the commencement date of the lease at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for termination of a lease, if the lease term reflects the Group exercising the option to terminate. The variable lease payments that do not depend on an index or a rate are recognised as an expense in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Group uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in lease payments (e.g., a change to future lease payments resulting from a change in an index or rate) or a change in assessment of an option to purchase the underlying asset.

The Group's lease liabilities are included in other borrowings.

(c) Short-term leases and leases of low-value assets

The Group applies the short-term lease recognition exemption to its short-term leases of equipment (that is those leases that have a lease term of 12 months or less from the commencement date and do not contain a purchase option). It also applies the recognition exemption for leases of low-value assets to leases of office equipment that are considered to be of low value. Lease payments on short-term leases and leases of low-value assets are recognised as an expense on a straight-line basis over the lease term.

Group as a lessor

When the Group acts as a lessor, it classifies at lease inception (or when there is a lease modification) each of its leases as either an operating lease or a finance lease.

Leases in which the Group does not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. When a contract contains lease and non-lease components, the Group allocates the consideration in the contract to each component on a relative stand-alone selling price basis. Rental income is accounted for on a straight-line basis over the lease terms and is included in revenue in the statement of profit or loss due to its operating nature. Initial direct costs incurred in negotiating and arranging an operating lease are added to the carrying amount of the leased asset and recognised over the lease term on the same basis as rental income. Contingent rents are recognised as revenue in the period in which they are earned.

Leases that transfer substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee are accounted for as finance leases.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Leases (applicable before 1 January 2019)

Group as a lessor (continued)

Leases that transfer substantially all the rewards and risks of ownership of assets to the Group, other than legal title, are accounted for as finance leases. At the inception of a finance lease, the cost of the leased asset is capitalised at the present value of the minimum lease payments and recorded together with the obligation, excluding the interest element, to reflect the purchase and financing. Assets held under capitalised finance leases, including prepaid land lease payments under finance leases, are included in property, plant and equipment, and depreciated over the shorter of the lease terms and the estimated useful lives of the assets. The finance costs of such leases are charged to the statement of profit or loss so as to provide a constant periodic rate of charge over the lease terms.

Assets acquired through hire purchase contracts of a financing nature are accounted for as finance leases, but are depreciated over their estimated useful lives.

Leases where substantially all the rewards and risks of ownership of assets remain with the lessor are accounted for as operating leases. Where the Group is the lessor, assets leased by the Group under operating leases are included in non-current assets, and rentals receivable under the operating leases are credited to the statement of profit or loss on the straight-line basis over the lease terms. Where the Group is the lessee, rentals payable under operating leases net of any incentives received from the lessor are charged to the statement of profit or loss on the straight-line basis over the lease terms.

Investments and other financial assets

Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortised cost, fair value through other comprehensive income, and fair value through profit or loss.

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. With the exception of trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient of not adjusting the effect of a significant financing component, the Group initially measures a financial asset at its fair value, plus in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Group has applied the practical expedient are measured at the transaction price determined under HKFRS 15 in accordance with the policies set out for "Revenue recognition" below.

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Investments and other financial assets *(continued)*

Initial recognition and measurement (continued)

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income, it needs to give rise to cash flows that are solely payments of principal and interest (“SPPI”) on the principal amount outstanding. Financial assets with cash flows that are not SPPI are classified and measured at fair value through profit or loss, irrespective of the business model.

The Group’s business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both. Financial assets classified and measured at amortised cost are held within a business model with the objective to hold financial assets in order to collect contractual cash flows, while financial assets classified and measured at fair value through other comprehensive income are held within a business model with the objective of both holding to collect contractual cash flows and selling. Financial assets which are not held within the aforementioned business models are classified and measured at fair value through profit or loss.

All regular way purchases and sales of financial assets are recognised on the trade date, that is, the date that the Group commits to purchase or sell the asset. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the period generally established by regulation or convention in the marketplace.

Subsequent measurement

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

Financial assets at amortised cost (debt instruments)

Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in the statement of profit or loss when the asset is derecognised, modified or impaired.

Financial assets at fair value through other comprehensive income (debt instruments)

For debt investments at fair value through other comprehensive income, interest income, foreign exchange revaluation and impairment losses or reversals are recognised in the statement of profit or loss and computed in the same manner as for financial assets measured at amortised cost. The remaining fair value changes are recognised in other comprehensive income. Upon derecognition, the cumulative fair value change recognised in other comprehensive income is recycled to the statement of profit or loss.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Investments and other financial assets *(continued)*

Subsequent measurement (continued)

Financial assets at fair value through other comprehensive income (equity instruments)

Upon initial recognition, the Group can elect to classify irrevocably its equity investments as equity investments designated at fair value through other comprehensive income when they meet the definition of equity under HKAS 32 *Financial Instruments: Presentation* and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to the statement of profit or loss. Dividends are recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably, except when the Group benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in other comprehensive income. Equity investments designated at fair value through other comprehensive income are not subject to impairment assessment.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss.

This category includes equity investments which the Group had not irrevocably elected to classify at fair value through other comprehensive income. Dividends on equity investments classified as financial assets at fair value through profit or loss are also recognised as other income in the statement of profit or loss when the right of payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

Derecognition of financial assets

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 statement of financial position) when:

- the rights to receive cash flows from the asset have expired; or
- the Group has transferred its rights to receive cash flows from the 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) the Group has transferred substantially all the risks and rewards of the asset, or (b) the Group has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Derecognition of financial assets *(continued)*

When the Group has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if and to what extent it has retained the risk and rewards of ownership of the asset. When it has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the Group continues to recognise the transferred asset to the extent of the Group's continuing involvement. In that case, the Group also recognises an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Group has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Group could be required to repay.

Impairment of financial assets

The Group recognises an allowance for expected credit losses ("ECLs") for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Group expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

General approach

ECLs are recognised in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

At each reporting date, the Group assesses whether the credit risk on a financial instrument has increased significantly since initial recognition. When making the assessment, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition and considers reasonable and supportable information that is available without undue cost or effort, including historical and forward-looking information.

For debt investments at fair value through other comprehensive income, the Group applies the low credit risk simplification. At each reporting date, the Group evaluates whether the debt investments are considered to have low credit risk using all reasonable and supportable information that is available without undue cost or effort. In making that evaluation, the Group reassesses the external credit ratings of the debt investments. In addition, the Group considers that there has been a significant increase in credit risk when contractual payments are more than 30 days past due.

The Group considers a financial asset in default when contractual payments are 90 days past due. However, in certain cases, the Group may also consider a financial asset to be in default when internal or external information indicates that the Group is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Group. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Impairment of financial assets *(continued)*

General approach (continued)

Debt investments at fair value through other comprehensive income and financial assets at amortised cost are subject to impairment under the general approach and they are classified within the following stages for measurement of ECLs except for trade receivables and contract assets which apply the simplified approach as detailed below.

Stage 1 – Financial instruments for which credit risk has not increased significantly since initial recognition and for which the loss allowance is measured at an amount equal to 12-month ECLs

Stage 2 – Financial instruments for which credit risk has increased significantly since initial recognition but that are not credit-impaired financial assets and for which the loss allowance is measured at an amount equal to lifetime ECLs

Stage 3 – Financial assets that are credit-impaired at the reporting date (but that are not purchased or originated credit-impaired) and for which the loss allowance is measured at an amount equal to lifetime ECLs

Simplified approach

For trade and bills receivables that does not contain a significant financing component or when the Group applies the practical expedient of not adjusting the effect of a significant financing component, the Group applies the simplified approach in calculating ECLs. Under the simplified approach, the Group does not track changes in credit risk, but instead recognises a loss allowance based on lifetime ECLs at each reporting date. The Group has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Financial liabilities

Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as loans and borrowings payables, or other financial liabilities, as appropriate.

All financial liabilities are recognised initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Group's financial liabilities include trade and other payables and other borrowings.

Subsequent measurement

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

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Financial liabilities *(continued)*

Financial liabilities at amortised cost (loans and borrowings)

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost, using the effective interest rate method unless the effect of discounting would be immaterial, in which case they are stated at cost. Gains and losses are recognised in the statement of profit or loss when the liabilities are derecognised as well as through the effective interest rate amortisation process.

Amortised cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortisation is included in finance costs in the statement of profit or loss.

Derecognition of financial liabilities

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 the statement of profit or loss.

Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position if there is a currently enforceable legal right to offset the recognised amounts and there is an intention to settle on a net basis, or to realise the assets and settle the liabilities simultaneously.

Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined on the weighted average basis and, in the case of work in progress and finished goods, comprises direct materials, direct labour and an appropriate proportion of overheads. Net realisable value is based on estimated selling prices less any estimated costs to be incurred to completion and disposal.

Cash and cash equivalents

For the purpose of the consolidated statement of cash flows, cash and cash equivalents comprise cash on hand and demand deposits, and short term highly liquid investments that are readily convertible into known amounts of cash, are subject to an insignificant risk of changes in value, and have a short maturity of generally within three months when acquired, less bank overdrafts which are repayable on demand and form an integral part of the Group's cash management.

For the purpose of the consolidated statement of financial position, cash and bank balances comprise cash on hand and at banks, including term deposits and assets similar in nature to cash, which are not restricted as to use.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Income tax

Income tax comprises current and deferred tax. Income tax relating to items recognised outside profit or loss is recognised outside profit or loss, either in other comprehensive income or directly in equity.

Current tax assets and liabilities are measured at the amount expected to be recovered from or paid to the taxation authorities, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period, taking into consideration interpretations and practices prevailing in the countries in which the Group operates.

Deferred tax is provided, using the liability method, on all temporary differences at the end of the reporting period between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

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

- when the deferred tax liability 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
- in respect of taxable temporary differences associated with investments in subsidiaries, when the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognised for all deductible temporary differences, and the carryforward of unused tax credits and any unused tax losses. 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 credits and unused tax losses can be utilised, except:

- when the deferred tax asset relating to the deductible temporary differences 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
- in respect of deductible temporary differences associated with investments in subsidiaries and associates, deferred tax assets are only recognised to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilised.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilised. Unrecognised deferred tax assets are reassessed at the end of each reporting period 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.

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Income tax *(continued)*

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, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

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.

Government grants

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the grant relates to an expense item, it is recognised as income on a systematic basis over the periods that the costs, which it is intended to compensate, are expensed.

Where the grant relates to an asset, the fair value is credited to a deferred income account and is released to the statement of profit or loss over the expected useful life of the relevant asset by equal annual instalments or deducted from the carrying amount of the asset and released to the statement of profit or loss by way of a reduced depreciation charge.

Revenue recognition

Revenue from contracts with customers

Revenue from contracts with customers is recognised when control of goods or services is transferred to the customers at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services.

When the consideration in a contract includes a variable amount, the amount of consideration is estimated to which the Group will be entitled in exchange for transferring the goods or services to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognised will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Revenue recognition *(continued)*

Revenue from contracts with customers (continued)

When the contract contains a financing component which provides the customer with a significant benefit of financing the transfer of goods or services to the customer for more than one year, revenue is measured at the present value of the amount receivable, discounted using the discount rate that would be reflected in a separate financing transaction between the Group and the customer at contract inception. When the contract contains a financing component which provides the Group a significant financial benefit for more than one year, revenue recognised under the contract includes the interest expense accreted on the contract liability under the effective interest method. For a contract where the period between the payment by the customer and the transfer of the promised goods or services is one year or less, the transaction price is not adjusted for the effects of a significant financing component, using the practical expedient in HKFRS 15.

(a) Sale of products

Revenue from the sale of products is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the products.

(b) Testing services

Revenue from testing services is recognised upon completion of testing, generally on acceptance of the tested goods.

Revenue from other sources

Rental income is recognised on a time proportion basis over the lease terms.

Other income

Interest income is recognised on an accrual basis using the effective interest method by applying the rate that exactly discounts the estimated future cash receipts over the expected life of the financial instrument or a shorter period, when appropriate, to the net carrying amount of the financial asset.

Dividend income is recognised when the shareholders' right to receive payment has been established, it is probable that the economic benefits associated with the dividend will flow to the Group and the amount of the dividend can be measured reliably.

Contract assets

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognised for the earned consideration that is conditional. Contract assets are subject to impairment assessment, details of which are included in the accounting policies for impairment of financial assets.

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Contract liabilities

A contract liability is recognised when a payment is received or a payment is due (whichever is earlier) from a customer before the Group transfers the related goods or services. Contract liabilities are recognised as revenue when the Group performs under the contract (i.e., transfers control of the related goods or services to the customer).

Contract costs

Other than the costs which are capitalised as inventories, property, plant and equipment and intangible assets, costs incurred to fulfil a contract with a customer are capitalised as an asset if all of the following criteria are met:

- (a) The costs relate directly to a contract or to an anticipated contract that the entity can specifically identify.
- (b) The costs generate or enhance resources of the entity that will be used in satisfying (or in continuing to satisfy) performance obligations in the future.
- (c) The costs are expected to be recovered.

The capitalised contract costs are amortised and charged to the statement of profit or loss on a systematic basis that is consistent with the pattern of the revenue to which the asset related is recognised. Other contract costs are expensed as incurred.

Share-based payments

The Company operates a share subscription plan for the purpose of providing incentives and rewards to eligible participants who contribute to the success of the Group's operations. Employees (including directors) of the Group receive remuneration in the form of share-based payments, whereby employees render services as consideration for equity instruments ("equity-settled transactions").

The cost of equity-settled transactions with employees for grants is measured by reference to the fair value at the date at which they are granted. The fair value is determined by an external valuer using a binomial model, further details of which are given in note 28 to the financial statements.

The cost of equity-settled transactions is recognised in employee benefit expense, together with a corresponding increase in equity, over the period in which the performance and/or service conditions are fulfilled. The cumulative expense recognised for equity-settled transactions at the end of each reporting period until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The charge or credit to the statement of profit or loss for a period represents the movement in the cumulative expense recognised as at the beginning and end of that period.

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Share-based payments *(continued)*

Service and non-market performance conditions are not taken into account when determining the grant date fair value of awards, but the likelihood of the conditions being met is assessed as part of the Group's best estimate of the number of equity instruments that will ultimately vest. Market performance conditions are reflected within the grant date fair value. Any other conditions attached to an award, but without an associated service requirement, are considered to be non-vesting conditions. Non-vesting conditions are reflected in the fair value of an award and lead to an immediate expensing of an award unless there are also service and/or performance conditions.

For awards that do not ultimately vest because non-market performance and/or 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/or service conditions are satisfied.

Where the terms of an equity-settled award are modified, as a minimum an expense is recognised as if the terms had not been modified, if the original terms of the award are met. 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.

Where an equity-settled 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 award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of earnings per share.

Other employee benefits

Pension schemes

The employees of the Company and its subsidiaries which operate in Mainland China are required to participate in a central pension scheme operated by the local municipal government. The Company and these subsidiaries are required to contribute 14% to 20% of their payroll costs to the central pension scheme. The contributions are charged to the statement of profit or loss as they become payable in accordance with the rules of the central pension scheme.

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 and are charged to the statement of profit or loss as they become payable in accordance with the rules of the MPF Scheme. The assets of the MPF Scheme are held separately from those of the Group in an independently administered fund. The subsidiary's employer contributions vest fully with the employees when contributed into the MPF Scheme.

Notes to Financial Statements

31 December 2019

2.4 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES *(continued)*

Other employee benefits *(continued)*

Termination benefits

Termination benefits are recognised at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises restructuring costs involving the payment of termination benefits.

Dividends

Final dividends are recognised as a liability when they are approved by the shareholders in a general meeting.

Foreign currencies

These financial statements are presented in RMB, which is the Company's functional currency. Each entity in the Group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. Foreign currency transactions recorded by the entities in the Group are initially recorded using their respective functional currency rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rates of exchange ruling at the end of the reporting period. Differences arising on settlement or translation of monetary items are recognised in the statement of profit or loss.

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. 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 gain or loss arising on translation of a non-monetary item measured at fair value is treated in line with the recognition of the gain or loss on change in fair value of the item. (i.e., translation difference on the item whose fair value gain or loss is recognised in other comprehensive income or profit or loss is also recognised in other comprehensive income or profit or loss, respectively).

In determining the exchange rate on initial recognition of the related asset, expense or income on the derecognition of a non-monetary asset or non-monetary liability relating to an advance consideration, the date of initial transaction is the date on which the Group initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of the advance consideration. The functional currency of certain overseas subsidiaries are currencies other than RMB. As at the end of the reporting period, the assets and liabilities of the entity are translated into RMB at the exchange rate prevailing at the end of the reporting period and their statement of profit and loss is translated into RMB at the weighted average exchange rate for the year.

The resulting exchange differences are recognised in other comprehensive income and accumulated in the exchange fluctuation reserve. On disposal of a foreign operation, the component of other comprehensive income relating to that particular foreign operation is recognised in the statement of profit or loss.

For the purpose of the consolidated statement of cash flows, the cash flows of the overseas subsidiaries are translated into RMB at the exchange rates prevailing at the dates of the cash flows. Frequently recurring cash flows of the overseas subsidiary which arise throughout the year are translated into RMB at the weighted average exchange rate for the year.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES

The preparation of the Group's financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and their accompanying disclosures, and the disclosure of contingent liabilities. 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, apart from those involving estimations, which have the most significant effect on the amounts recognised in the financial statements.

Research and development costs

The Group determines whether costs of research and development qualify for capitalisation and has developed criteria in making that judgement. Therefore, the Group considers whether costs of research and development to be capitalised generate future cash flows, and whether the Group has the technical feasibility of completing the development so that the item under research and development will be available for use or sale and the Group has the intention to complete the development. The Group also considers the ability in measuring development expenditure during the development.

Significant judgement in determining the lease term of contracts with renewal options

The Group has several lease contracts that include extension and termination options. The Group applies judgement in evaluating whether or not to exercise the option to renew or terminate the lease. That is, it considers all relevant factors that create an economic incentive for it to exercise either the renewal or termination. After the commencement date, the Group reassesses the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise or not to exercise the option to renew or to terminate.

The Group includes the renewal period as part of the lease term for leases of plant and office considering its construction of significant leasehold improvements over the leased asset. These leases have a short non-cancellable period and there will be a significant negative effect on production if a replacement is not readily available.

Estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are described below.

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3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES *(continued)*

Estimation uncertainty *(continued)*

Provision for expected credit losses on trade receivables

The Group uses a provision matrix to calculate ECLs for trade receivables. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns (i.e., by geography, product type, customer type and rating, and coverage by letters of credit and other forms of credit insurance).

The provision matrix is initially based on the Group's historical observed default rates. The Group will calibrate the matrix to adjust the historical credit loss experience with forward-looking information. For instance, if forecast economic conditions (i.e., gross domestic product) are expected to deteriorate over the next year which can lead to an increased number of defaults in the manufacturing sector, the historical default rates are adjusted. At each reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

The assessment of the correlation among historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and forecast economic conditions. The Group's historical credit loss experience and forecast of economic conditions may also not be representative of a customer's actual default in the future. The information about the ECLs on the Group's trade receivables is disclosed in note 20 to the financial statements.

Leases – Estimating the incremental borrowing rate

The Group cannot readily determine the interest rate implicit in a lease, and therefore, it uses an incremental borrowing rate ("IBR") to measure lease liabilities. The IBR is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The IBR therefore reflects what the Group "would have to pay", which requires estimation when no observable rates are available (such as for subsidiaries that do not enter into financing transactions) or when it needs to be adjusted to reflect the terms and conditions of the lease (for example, when leases are not in the subsidiary's functional currency). The Group estimates the IBR using observable inputs (such as market interest rates) when available and is required to make certain entity-specific estimates (such as the subsidiary's stand-alone credit rating).

Impairment of non-financial assets (other than goodwill)

The Group assesses whether there are any indicators of impairment for all non-financial assets (including the right-of-use assets) at the end of each reporting period. Other non-financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. An impairment exists when the carrying value of an asset or a cash-generating unit exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its value in use. 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 asset. When value in use calculations are undertaken, management must estimate the expected future cash flows from the asset or cash-generating unit and choose a suitable discount rate in order to calculate the present value of those cash flows.

3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES *(continued)*

Estimation uncertainty *(continued)*

Deferred tax assets

Deferred tax assets are recognised for unused tax losses and other temporary differences to the extent that it is probable that taxable profit will be available against which the losses and differences 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. The amount of unrecognised tax losses at 31 December 2019 was RMB555,143,000 (2018: RMB15,413,000). Further details are contained in note 26 to the financial statements.

Fair value of unlisted equity investments

The unlisted equity investments have been valued based on a market-based valuation technique as detailed in note 37 to the financial statements. The valuation requires the Group to determine the comparable public companies (peers) and select the price multiple. In addition, the Group makes estimates about the discount for illiquidity and size differences. The Group classifies the fair value of these investments as Level 3. The fair value of the unlisted equity investments at 31 December 2019 was RMB31,119,000 (2018: RMB28,475,000). Further details are included in note 17 to the financial statements.

Development costs

Development costs are capitalised in accordance with the accounting policy for research and development costs in note 2.4 to the financial statements. Determining the amounts to be capitalised requires management to make assumptions regarding the expected future cash generation of the assets, discount rates to be applied and the expected period of benefits. Further details are contained in note 15 to the financial statements. At 31 December 2019, the best estimate of the carrying amount of capitalised development costs was RMB157,011,000 (2018: RMB191,068,000).

Provisions for inventories to net realisable value and slow-moving inventories

The Group writes down inventories to net realisable value based on an assessment of the realisability of inventories and makes provision for slow-moving inventories based on the analysis of inventories' turnover and their historical and subsequent usage or sales. The assessment of write-down and provision for slow-moving inventories requires directors' estimates. 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. Further details are contained in note 19 to the financial statements.

Estimated useful lives of property, plant and equipment

The Group's management determines the useful lives of property, plant and equipment 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 property, plant and equipment and the depreciation expenses in the period in which such estimates have been changed.

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3. SIGNIFICANT ACCOUNTING JUDGEMENTS AND ESTIMATES *(continued)*

Estimation uncertainty *(continued)*

Estimated useful lives 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.

4. OPERATING SEGMENT INFORMATION

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

- the design, development and sale of IC products segment ("Design, development and sale of IC products"); and
- the provision of testing services for IC products segment ("Testing services for IC products").

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 loss before tax except that interest income, fair value gains/losses from the Group's financial instruments, non-lease-related finance costs and other unallocated income and gains as well as head office and corporate expenses are excluded from such measurement.

Segment assets exclude deferred tax assets, tax recoverable, cash and cash balance and other unallocated head office and corporate assets as these assets are managed on a group basis.

Segment liabilities exclude deferred tax liabilities, tax payable and other unallocated head office and corporate liabilities as these liabilities are managed on a group basis.

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.

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31 December 2019

4. OPERATING SEGMENT INFORMATION *(continued)*

Year ended 31 December 2019	Design, development and sale of IC products RMB'000	Testing services for IC products RMB'000	Total RMB'000
Segment revenue (note 5):			
Sales to external customers	1,336,140	118,632	1,454,772
Intersegment sales	–	27,222	27,222
	1,336,140	145,854	1,481,994
<i>Reconciliation:</i>			
Elimination of intersegment sales			(27,222)
Revenue			1,454,772
Segment results	(198,529)	38,167	(160,362)
<i>Reconciliation:</i>			
Elimination of intersegment results			(14,197)
Interest income			8,042
Unallocated other income and gains			20,805
Finance costs (other than interest on lease liabilities)			(316)
Loss before tax			(146,028)
Segment assets	2,038,319	416,045	2,454,364
<i>Reconciliation:</i>			
Elimination of intersegment receivables			(3,671)
Corporate and other unallocated assets			7,679
Total assets			2,458,372
Segment liabilities	409,042	112,208	521,250
<i>Reconciliation:</i>			
Elimination of intersegment payables			(3,671)
Corporate and other unallocated liabilities			2,507
Total liabilities			520,086
Other segment information:			
Share of profits and losses of Associates	1,023	–	1,023
Gain on loss of controls of a subsidiary	(24,845)	–	(24,845)
Impairment loss recognised in the statement of profit or loss, net	51,237	224	51,461
Depreciation	38,316	44,338	82,654
Depreciation of right-of-use assets	5,392	5,203	10,595
Amortization of intangible assets	56,558	–	56,558
Investments in associates	55,943	–	55,943
Capital expenditure*	113,673	74,310	187,983

* Capital expenditure consists of additions to property, plant and equipment and intangible assets.

Notes to Financial Statements

31 December 2019

4. OPERATING SEGMENT INFORMATION (continued)

Year ended 31 December 2018	Design, development and sale of IC products RMB'000	Testing services for IC products RMB'000	Total RMB'000
Segment revenue (note 5):			
Sales to external customers	1,312,821	96,809	1,409,630
Intersegment sales	–	33,894	33,894
	1,312,821	130,703	1,443,524
<i>Reconciliation:</i>			
Elimination of intersegment sales			(33,894)
Revenue			1,409,630
Segment results			
	92,822	32,127	124,949
<i>Reconciliation:</i>			
Elimination of intersegment results			(14,520)
Interest income			10,600
Unallocated other income and gains			38,667
Profit before tax			159,696
Segment assets			
	2,171,207	373,098	2,544,305
<i>Reconciliation:</i>			
Elimination of intersegment receivables			(3,760)
Corporate and other unallocated assets			6,249
Total assets			2,546,794
Segment liabilities			
	353,039	87,947	440,986
<i>Reconciliation:</i>			
Elimination of intersegment payables			(3,760)
Corporate and other unallocated liabilities			2,128
Total liabilities			439,354
Other segment information:			
Impairment loss recognised in the statement of profit or loss	14,473	239	14,712
Depreciation	38,103	43,722	81,825
Amortisation of intangible assets	29,473	–	29,473
Investments in associates	3,000	–	3,000
Capital expenditure*	136,826	52,720	189,546

* Capital expenditure consists of additions to property, plant and equipment and intangible assets.

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4. OPERATING SEGMENT INFORMATION *(continued)*

Geographical information

(a) Revenue from external customers

	2019 RMB'000	2018 RMB'000
Mainland China	1,356,188	1,329,633
Asia Pacific (excluding Mainland China)	84,499	74,018
Others	14,085	5,979
	1,454,772	1,409,630

The revenue information above is based on the locations of the customers.

(b) Non-current assets

	2019 RMB'000	2018 RMB'000
Mainland China	699,724	598,138
Asia Pacific (excluding Mainland China)	506	15
Others	19	24
	700,249	598,177

The non-current asset information above is based on the locations of the assets and excludes financial instruments and deferred tax assets.

Information about major customers

In 2019 and 2018, no sales to a single customer contributed to 10% or more of the Group's revenue.

5. REVENUE, OTHER INCOME AND GAINS

An analysis of revenue is as follows:

	2019 RMB'000	2018 RMB'000
<i>Revenue from contracts with customers</i>	1,450,635	1,405,367
<i>Revenue from other sources</i>		
Other lease payments, including fixed payments	4,137	4,263
	1,454,772	1,409,630

Notes to Financial Statements

31 December 2019

5. REVENUE, OTHER INCOME AND GAINS *(continued)*

Revenue from contracts with customers

(a) Disaggregated revenue information

For the year ended 31 December 2019

Segments	IC products RMB'000	Testing services RMB'000	Total RMB'000
Type of goods or services			
Sale of products	1,337,234	–	1,337,234
Rendering of services	–	113,401	113,401
Total revenue from contracts with customers	1,337,234	113,401	1,450,635
Geographical markets			
Mainland China	1,238,650	113,401	1,352,051
Asia Pacific (excluding Mainland China)	84,499	–	84,499
Other countries/regions	14,085	–	14,085
Total revenue from contracts with customers	1,337,234	113,401	1,450,635
Timing of revenue recognition			
Goods transferred at a point in time	1,337,234	–	1,337,234
Services transferred at a point in time	–	113,401	113,401
Total revenue from contracts with customers	1,337,234	113,401	1,450,635

Notes to Financial Statements

31 December 2019

5. REVENUE, OTHER INCOME AND GAINS *(continued)*

Revenue from contracts with customers *(continued)*

(a) Disaggregated revenue information (continued)

For the year ended 31 December 2018

Segments	IC products RMB'000	Testing services RMB'000	Total RMB'000
Type of goods or services			
Sale of goods	1,313,867	–	1,313,867
Rendering of services	–	91,500	91,500
<hr/>			
Total revenue from contracts with customers	1,313,867	91,500	1,405,367
<hr/>			
Geographical markets			
Mainland China	1,233,870	91,500	1,325,370
Asia Pacific (excluding Mainland China)	74,018	–	74,018
Other countries/regions	5,979	–	5,979
<hr/>			
Total revenue from contracts with customers	1,313,867	91,500	1,405,367
<hr/>			
Timing of revenue recognition			
Goods transferred at a point in time	1,313,867	–	1,313,867
Services transferred at a point in time	–	91,500	91,500
<hr/>			
Total revenue from contracts with customers	1,313,867	91,500	1,405,367

Notes to Financial Statements

31 December 2019

5. REVENUE, OTHER INCOME AND GAINS *(continued)*

Revenue from contracts with customers *(continued)*

(a) *Disaggregated revenue information (continued)*

Set out below is the reconciliation of the revenue from customers with the amounts disclosed in the segment information:

For the year ended 31 December 2019

Segments	IC products RMB'000	Testing services RMB'000	Total RMB'000
Revenue from contracts with customers			
External customers	1,337,234	113,401	1,450,635
Intersegment sales	–	27,222	27,222
	1,337,234	140,623	1,477,857
Intersegment adjustments and eliminations	–	(27,222)	(27,222)
Total revenue from contracts with customers	1,337,234	113,401	1,450,635

For the year ended 31 December 2018

Segments	IC products RMB'000	Testing services RMB'000	Total RMB'000
Revenue from contracts with customers			
External customers	1,313,867	91,500	1,405,367
Intersegment sales	–	33,894	33,894
	1,313,867	125,394	1,439,261
Intersegment adjustments and eliminations	–	(33,894)	(33,894)
Total revenue from contracts with customers	1,313,867	91,500	1,405,367

Notes to Financial Statements

31 December 2019

5. REVENUE, OTHER INCOME AND GAINS *(continued)*

Revenue from contracts with customers *(continued)*

(a) Disaggregated revenue information (continued)

The following table shows the amounts of revenue recognised in the current reporting period that were included in the contract liabilities at the beginning of the reporting period and recognised from performance obligations satisfied in previous periods:

	2019 RMB'000	2018 RMB'000
Revenue recognised that was included in contract liabilities at the beginning of the reporting period:		
Sales of goods	9,574	5,834
Rendering of services	161	1,915
	9,735	7,749

(b) Performance obligations

Information about the Group's performance obligations is summarised below:

Sale of products

The performance obligation is satisfied upon delivery of the products and payment is generally due within 30 to 90 days from delivery, except for new customers, where payment in advance is normally required.

Rendering of services

The performance obligation is satisfied at a point time upon completion of the testing services and payment is generally due within 30 to 90 days from completion, except for new customers, where payment in advance is normally required.

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5. REVENUE, OTHER INCOME AND GAINS (continued)

Revenue from contracts with customers (continued)

(b) Performance obligations (continued)

Rendering of services (continued)

The transaction prices allocated to the remaining performance obligations (unsatisfied or partially unsatisfied) as at 31 December are as follows:

	2019 RMB'000	2018 RMB'000
Amounts expected to be recognised as revenue:		
Within one year	15,113	18,406
After one year	1,314	2,556
	16,427	20,962

The amounts of transaction prices allocated to the remaining performance obligations which are expected to be recognised as revenue after one year relate to the rendering of services. All the other amounts of transaction prices allocated to the remaining performance obligations are expected to be recognised as revenue within one year. The amounts disclosed above do not include variable consideration which is constrained.

	Notes	2019 RMB'000	2018 RMB'000
Other income and gains			
Bank interest income	6	8,042	10,600
Government grants received for research activities	6	89,811	83,020
Other government grants	6	20,805	38,667
Gain on disposal of a subsidiary	6	24,845	–
Others		18,379	16,884
		161,882	149,171

Notes to Financial Statements

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6. (LOSS)/PROFIT BEFORE TAX

The Group's (loss)/profit before tax is arrived at after charging/(crediting):

	2019 RMB'000	2018 RMB'000
Cost of inventories sold	883,626	729,590
Cost of services provided	54,367	36,871
Depreciation of property, plant and equipment (note 13)	82,654	81,825
Depreciation of right-of-use assets (note 14)	10,595	–
Research and development costs:		
Deferred development amortised* (note 15)	51,863	29,473
Current year expenditure	513,935	394,180
Less: Government grants received for research activities** (note 5)	(89,811)	(83,020)
	475,987	340,633
Minimum lease payments under operating leases	–	14,319
Lease payments not included in the measurement of lease liabilities	1,334	–
Auditor's remuneration	1,627	1,613
Employee benefit expense (excluding directors' and chief executive's remuneration (note 8)):		
Wages and salaries	380,992	345,914
Pension scheme contributions	40,979	38,425
Less: Amounts capitalised as development costs	(36,601)	(56,068)
	385,370	328,271
Foreign exchange differences, net	2,522	810
Impairment of intangible assets (note 15)	9,832	–
Impairment of financial and contract assets, net:		
Impairment of trade receivables, net (note 20)	5,075	702
Write-down of inventories to net realisable value	36,554	14,010
Loss on disposal of items of property, plant and equipment and intangible assets	11,614	19,474
Gain on disposal of a subsidiary	(24,845)	–
Bank interest income (note 5)	(8,042)	(10,600)
Other government grants (note 5)	(20,805)	(38,667)
Government grants received for research activities**	(89,811)	(83,020)

* The amortisation of deferred development costs for the year is included in "Other expenses" on the face of the consolidated statement of profit or loss.

Notes to Financial Statements

31 December 2019

6. (LOSS)/PROFIT BEFORE TAX *(continued)*

The Group's (loss)/profit before tax is arrived at after charging/(crediting) *(continued)*:

** Various government grants have been received for setting up research activities in Shanghai, Mainland China, for the government's support to domestic technology development. Conditions or contingencies relating to these grants are fulfilled and they are not deducted from the related costs which they are intended to compensate, but recorded in other income. Government grants received for which related expenditure has not yet been incurred or to which there were unfulfilled conditions are included in "Other payables, accruals, and deferred income" in the consolidated statement of financial position.

7. FINANCE COSTS

An analysis of finance costs is as follows:

	2019 RMB'000	2018 RMB'000
Interest on loans	316	–
Interest on lease liabilities	2,283	–
	2,599	–

8. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION

Directors' and chief executive's remuneration for the year, disclosed pursuant to the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (the "Listing Rules"), section 383 (1)(a), (b), (c) and (f) of the Hong Kong Companies Ordinance and Part 2 of the Companies (Disclosure of Information about Benefits of Directors) Regulation, is as follows:

	2019 RMB'000	2018 RMB'000
Fees	–	86
Other emoluments:		
Salaries, allowances and benefits in kind	7,928	7,743
Other benefits	108	108
Pension scheme contributions	49	50
	8,085	7,901
	8,085	7,987

Notes to Financial Statements

31 December 2019

8. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION *(continued)*

(a) Independent non-executive directors

The fees and other benefits paid to independent non-executive directors during the year were as follows:

	Fees RMB'000	Other benefits RMB'000	Total RMB'000
2019			
Mr. Guo Li	–	36	36
Mr. Cao Zhongyong	–	21	21
Mr. Cai Minyong	–	–	–
Mr. Wang Pin	–	21	21
Mr. Cheung Wing Keung	–	–	–
Mr. Chen Baoying	–	15	15
Mr. Lin Fujiang	–	15	15
Total	–	108	108
2018			
Mr. Cheung Wing Keung	86	–	86
Mr. Guo Li	–	36	36
Mr. Chen Baoying	–	36	36
Mr. Lin Fujiang	–	36	36
Total	86	108	194

There were no other emoluments payable to the independent non-executive directors during the year (2018: Nil).

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8. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION *(continued)*

(b) Executive directors, non-executive directors and the chief executive

	Salaries, allowances and benefits in kind RMB'000	Pension scheme contributions RMB'000	Other benefits RMB'000	Total remuneration RMB'000
2019				
Executive directors:				
Mr. Jiang Guoxing	300	–	–	300
Mr. Shi Lei	3,580	49	–	3,629
Mr. Yu Jun	2,741	–	–	2,741
Ms. Cheng Junxia	1,307	–	–	1,307
	7,928	49	–	7,977
Non-executive directors:				
Ms. Zhang Qianling	–	–	–	–
Mr. Ma Zhicheng	–	–	–	–
Ms. Zhang Huajing	–	–	–	–
Mr. Wu Ping	–	–	–	–
Mr. Yao Fuli	–	–	–	–
	–	–	–	–
	7,928	49	–	7,977

Notes to Financial Statements

31 December 2019

8. DIRECTORS' AND CHIEF EXECUTIVE'S REMUNERATION *(continued)*

(b) Executive directors, non-executive directors and the chief executive *(continued)*

	Salaries, allowances and benefits in kind RMB'000	Pension scheme contributions RMB'000	Other benefits RMB'000	Total remuneration RMB'000
2018				
Executive directors:				
Mr. Jiang Guoxing	300	–	–	300
Mr. Shi Lei	3,494	50	–	3,544
Mr. Yu Jun	2,682	–	–	2,682
Ms. Cheng Junxia	1,267	–	–	1,267
	7,743	50	–	7,793
Non-executive directors:				
Ms. Zhang Qianling	–	–	–	–
Mr. Ma Zhicheng	–	–	–	–
Mr. Yao Fuli	–	–	–	–
Ms. Zhang Huajing	–	–	–	–
	–	–	–	–
	7,743	50	–	7,793

The Group and the Company's chief executive is Mr. Shi Lei, who is also an executive director of the Group and the Company.

There was no arrangement under which a director or the chief executive waived or agreed to waive any remuneration during the year.

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9. FIVE HIGHEST PAID EMPLOYEES

The five highest paid employees during the year included one director and one director/chief executive (2018: one director and one director/chief executive), details of whose remuneration are set out in note 8 above. Details of the remuneration for the year of the remaining three (2018: three) highest paid employees who are neither a director nor chief executive of the Group are as follows:

	2019 RMB'000	2018 RMB'000
Salaries, allowances and benefits in kind	5,336	5,157
Pension scheme contributions	–	50
	5,336	5,207

The number of non-director and non-chief executive highest paid employees whose remuneration fell within the following bands is as follows:

	Number of employees	
	2019	2018
HK\$1,000,001 to HK\$1,500,000	–	–
HK\$1,500,001 to HK\$2,000,000	2	2
HK\$2,000,001 to HK\$2,500,000	1	1
	3	3

During the year, no emoluments were paid by the Group to the directors and the chief executive or the non-director and non-chief executive highest paid employees either as an inducement to join the Group, or as compensation for loss of office.

10. INCOME TAX

Under the PRC Corporate Income Tax Law (the “CIT Law”), the Company is subject to income tax at a base rate of 25%. The Company is eligible to a preferential income tax rate of 15% as a High New Technology Enterprise (“HNT Enterprise”). In addition, pursuant to the notice of the State Council on “Issuing Several Policies on Further Encouraging the Development of the Software and Integrated Circuit Industries” (Guo Fa (2011) No. 4) and “Notice Concerning Several Policies on Enterprise Income Tax of Software and Integrated Circuit Industries” (Cai Shui (2016) No. 49) issued by the Ministry of Finance of the PRC, the Company is qualified as a “key integrated circuit design enterprise falling within the State’s planned arrangement”. For the year ended 31 December 2018, income tax provision on assessable income of the Company was made at the rate of 10% applied to key integrated circuit design enterprises falling within the State’s planned arrangement. For the year ended 31 December 2019, the Company is no longer subject to the tax rate of 10% for not meeting the underlying profit condition required for qualifying as key integrated circuit design enterprises. The preferential income tax rate of 15% as an High New Technology Enterprise (HNT Enterprise) remain applicable.

Under the CIT Law, the Company’s subsidiaries, Sino IC and Fukong Hualong are subject to income tax at a base rate of 25%. Sino IC and Fukong Hualong are entitled to a preferential income tax rate of 15% as an HNT Enterprise. For the financial year ended 31 December 2019, income tax on assessable income of Sino IC and Fukong Hualong has been provided at the rate of 15% (2018: 15%).

Under the CIT Law, two of the Company’s subsidiaries, SZFM and BJFM, are subject to income tax at a base rate of 25%. For the year ended 31 December 2019, income tax on assessable income of these subsidiaries has been provided at the rate of 25% (2018: 25%).

The Hong Kong subsidiary of the Group is a qualifying entity under the two-tiered profits tax rates regime effective from the year of assessment 2018/2019. The first HK\$2,000,000 (2018: Nil) of assessable profits of this subsidiary is taxed at 8.25% and the remaining assessable profits are taxed at 16.5%.

The Company’s subsidiary incorporated and operating in the United States of America was subject to federal corporation income tax at a rate of 21% during the year (2018: 21%), as well as state tax at a rate of 8.84% (2018: 8.84%).

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10. INCOME TAX (continued)

	2019 RMB'000	2018 RMB'000
Current – Hong Kong		
Charge for the year	–	495
Overprovision in prior years	–	(35)
Current – United States of America		
Charge for the year	6	5
Current – Mainland China		
Charge for the year	4,357	5,067
Under-provision in prior years	–	644
Deferred (note 26)	(1,430)	24,168
Total tax charge for the year	2,933	30,344

A reconciliation of the tax expense applicable to loss before tax at the statutory rates for the countries/ jurisdictions in which the Company and the majority of its subsidiaries are domiciled to the tax expense at the effective tax rates, and a reconciliation of the applicable rates (i.e., the statutory tax rates) to the effective tax rates, are as follows:

2019

	Mainland China		Hong Kong		United States		Total	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
Loss before tax	(137,716)		(5,665)		(2,647)		(146,028)	
Tax at the statutory tax rate	(34,429)	25.0	(1,416)	25	(790)	29.9	(36,635)	25.1
Lower tax rate enacted by local authority	13,677	(9.9)	481	(8.5)	–	–	14,158	(9.7)
Effect on opening deferred tax of decrease in rates	(134)	0.1	–	–	–	–	(134)	0.1
Accelerated deduction for research and development activities	(55,079)	40.0	–	–	–	–	(55,079)	37.7
Income not subject to tax	(3,727)	2.7	–	–	–	–	(3,727)	2.6
Expenses not deductible for tax	2,893	(2.1)	(20)	0.4	6	(0.2)	2,879	(2.0)
Tax losses and temporary differences not recognised	79,727	(57.9)	954	(16.8)	790	(29.9)	81,471	55.8
Tax charge at the Group's effective rate	2,928	(2.1)	(1)	–	6	(0.2)	2,933	(2.0)

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10. INCOME TAX (continued)

2018

	Mainland China		Hong Kong		United States		Total	
	RMB'000	%	RMB'000	%	RMB'000	%	RMB'000	%
Profit/(loss) before tax	158,606		3,853		(2,763)		159,696	
Tax at the statutory tax rate	39,651	25.0	494	12.8	(824)	29.8	39,321	24.6
Lower tax rate enacted by local authority	(21,557)	(13.6)	–	–	–	–	(21,557)	(13.5)
Adjustments in respect of current tax of previous periods years-underprovisions/(overprovision)	644	0.4	(35)	(0.9)	–	–	609	0.4
Accelerated deduction for research and development activities	(25,490)	(16.1)	–	–	–	–	(25,490)	(16.0)
Expenses not deductible for tax	892	0.6	(5)	(0.1)	5	(0.2)	892	0.6
Tax losses utilised from previous periods	(2,556)	(1.6)	–	–	–	–	(2,556)	1.6
Tax losses and temporary differences not recognised	38,295	24.1	6	0.2	824	(29.8)	39,125	24.5
Tax charge at the Group's effective rate	29,879	18.8	460	12.0	5	(0.2)	30,344	19.0

11. DIVIDENDS

The board of directors did not propose any final dividend for the year.

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12. (LOSS)/EARNINGS PER SHARE ATTRIBUTABLE TO ORDINARY EQUITY HOLDERS OF THE PARENT

The calculation of the basic loss per share amount is based on the loss for the year attributable to ordinary equity holders of the parent, and the weighted average number of ordinary shares of 694,502,000 (2018: 660,583,000) in issue during the year.

The Group had no potentially dilutive ordinary shares in issue during the two years ended 31 December 2019 and 2018.

The calculation of basic (loss)/earnings per share is based on:

	2019 RMB'000	2018 RMB'000
(Loss)/earnings		
(Loss)/earnings attributable to ordinary equity holders of the parent, used in the basic (loss)/earnings per share calculation	(161,936)	107,482

	Number of shares '000	
	2019	2018
Shares		
Weighted average number of ordinary shares in issue during the year used in the basic (loss)/earnings per share calculation	694,502	660,583

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13. PROPERTY, PLANT AND EQUIPMENT

31 December 2019

	Land and buildings RMB'000	Machinery and office equipment RMB'000	Motor vehicles RMB'000	Construction in progress RMB'000	Total RMB'000
At 1 January 2019:					
Cost	237,832	476,584	9,851	42,001	766,268
Accumulated depreciation	(39,760)	(324,836)	(6,509)	–	(371,105)
Net carrying amount	198,072	151,748	3,342	42,001	395,163
At 1 January 2019, net of accumulated depreciation	198,072	151,748	3,342	42,001	395,163
Additions	6,408	10,575	138	96,029	113,150
Transfers	–	90,973	–	(90,973)	–
Disposals	–	(51)	(14)	–	(65)
Disposal of a subsidiary (note 31)	(39)	(2,057)	(378)	–	(2,474)
Depreciation provided during the year	(15,269)	(66,327)	(1,058)	–	(82,654)
At 31 December 2019, net of accumulated depreciation	189,172	184,861	2,030	47,057	423,120
At 31 December 2019:					
Cost	242,184	520,518	9,036	47,057	818,795
Accumulated depreciation	(53,012)	(335,657)	(7,006)	–	(395,675)
Net carrying amount	189,172	184,861	2,030	47,057	423,120

Notes to Financial Statements

31 December 2019

13. PROPERTY, PLANT AND EQUIPMENT (continued)

31 December 2018

	Land and buildings RMB'000	Machinery and office equipment RMB'000	Motor vehicles RMB'000	Construction in progress RMB'000	Total RMB'000
At 1 January 2018:					
Cost	217,819	394,692	9,833	45,980	668,324
Accumulated depreciation	(29,105)	(266,097)	(6,088)	–	(301,290)
Net carrying amount	188,714	128,595	3,745	45,980	367,034
At 1 January 2018, net of accumulated depreciation					
Additions	4,566	23,708	914	80,946	110,134
Transfers	19,505	65,420	–	(84,925)	–
Disposals	–	(138)	(42)	–	(180)
Depreciation provided during the year	(14,713)	(65,837)	(1,275)	–	(81,825)
At 31 December 2018, net of accumulated depreciation	198,072	151,748	3,342	42,001	395,163
At 31 December 2018:					
Cost	237,832	476,584	9,851	42,001	766,268
Accumulated depreciation	(39,760)	(324,836)	(6,509)	–	(371,105)
Net carrying amount	198,072	151,748	3,342	42,001	395,163

At 31 December 2019, certain of the Group's equipment with a net carrying amount of approximately RMB8,810,000 (2018: RMB11,358,000) were under operating lease arrangements (note 14).

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14. LEASES

The Group as a lessee

The Group has lease contracts for various items of plant and offices used in its operations. Leases of plant and offices generally have lease terms between 2 and 6 years. Other equipment generally has lease terms of 12 months or less and/or is individually of low value. Generally, the Group is restricted from assigning and subleasing the leased assets outside the Group. There are several lease contracts that include extension and termination options.

(a) Right-of-use assets

The carrying amounts of the Group's right-of-use assets and the movements during the year are as follows:

	Plant and office RMB'000
As at 1 January 2019	36,615
Additions	15,570
Depreciation charge	(10,595)
As at 31 December 2019	41,590

(b) Lease liabilities

The carrying amount of lease liabilities (included under other borrowings) and the movements during the year are as follows:

	2019 Lease liabilities RMB'000
Carrying amount at 1 January	36,615
New leases	15,570
Accretion of interest recognised during the year	2,283
Payments	(10,906)
Carrying amount at 31 December	43,562
Analysed into:	
Current portion	10,702
Non-current portion	32,860

The maturity analysis of lease liabilities is disclosed in note 38 to the financial statements.

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14. LEASES (continued)

The Group as a lessee (continued)

(c) *The amounts recognised in profit or loss in relation to leases are as follows:*

	2019 RMB'000
Interest on lease liabilities	2,283
Depreciation charge of right-of-use assets	10,595
Expense relating to short-term leases and other leases with remaining lease terms ended on or before 31 December 2019 (included in cost of sales and administrative expenses)	1,334
Total amount recognised in profit or loss	14,212

(d) *The total cash outflow for leases and future cash outflows relating to leases that have not yet commenced are disclosed in notes 32(c) and 34, respectively, to the financial statements.*

The Group as a lessor

The Group leases its equipment in Mainland China under operating lease arrangements. The terms of the leases generally require the tenants to pay rents based on the usage rate of equipment with a minimum charge rate each month. Rental income recognised by the Group during the year was RMB4,137,000 (2018: RMB4,263,000), details of which are included in note 5 to the financial statements.

At 31 December 2019, the undiscounted lease payments receivable by the Group in future periods under non-cancellable operating leases with its tenants are as follows:

	2019 RMB'000	2018 RMB'000
Within one year	2,556	3,833
After one year but within two years	–	2,556
	2,556	6,389

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15. OTHER INTANGIBLE ASSETS

	Licenses RMB'000	Deferred development costs RMB'000	Total RMB'000
31 December 2019			
Cost at 1 January 2019, net of accumulated amortisation and impairment	–	191,068	191,068
Additions – internal development	24,204	50,629	74,833
Write-off – internal development	–	(11,579)	(11,579)
Impairment during the year	–	(9,832)	(9,832)
Disposal of a subsidiary	–	(11,412)	(11,412)
Amortisation provided during the year	(4,695)	(51,863)	(56,558)
At 31 December 2019	19,509	157,011	176,520
At 31 December 2019:			
Cost	24,204	455,044	479,248
Accumulated amortisation and impairment	(4,695)	(298,033)	(302,728)
Net carrying amount	19,509	157,011	176,520
		Deferred development costs RMB'000	
31 December 2018			
Cost at 1 January 2018, net of accumulated amortisation and impairment			160,655
Additions – internal development			79,412
Write-off – internal development			(19,526)
Impairment during the year			–
Amortisation provided during the year			(29,473)
At 31 December 2018			191,068
At 31 December 2018:			
Cost			435,298
Accumulated amortisation and impairment			(244,230)
Net carrying amount			191,068

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16. INVESTMENTS IN ASSOCIATES

	2019 RMB'000	2018 RMB'000
Share of net assets	55,943	3,000

The Group's trade payable balances with the associates are disclosed in notes 23 to the financial statements, respectively.

Particulars of the associates are as follows:

Name	Particulars of issued shares held	Place of incorporation/ registration and business	Percentage of ownership interest attributable to the Group	Principal activities
Shanghai West Hongqiao Navigation Technology Co., Ltd. ("West Hongqiao")	Ordinary shares	Shanghai	10.00	Technology service
Shanghai Fukong Hualong Micro-system Technology Co., Ltd. ("Fukong Hualong")	Ordinary shares	Shanghai	38.25	Technology service
Shanghai Fudan Sci-Tech. Park Venture Investment Co., Ltd ("Sci-Tech Park")	Ordinary shares	Shanghai	20.00	Industrial investment

The Group's shareholdings in the associates all comprise equity shares held by the Company.

16. INVESTMENTS IN ASSOCIATES *(continued)*

The Group's investment in West Hongqiao is accounted for under the equity method of accounting because the Group has significant influence over West Hongqiao by way of representation on the board of directors and participation in the policy-making process, despite the fact that the Group's equity interests in West Hongqiao were lower than 20% for the years ended 31 December 2019 and 31 December 2018.

Fukong Hualong is a subsidiary of the Company acquired during 2008, which is registered as a contractual joint venture company under PRC law. In December 2016, Fukong Hualong increased its issued capital from 30,000,000 shares to 40,000,000 shares, of which the Company subscribed nil shares. Upon completion of the capital injection, the Company's equity holding in Fukong Hualong decreased from 51% to 38.25%. The new equity holder, which holds a 25% equity interest in Fukong Hualong, has agreed to act in concert with the Company over Fukong Hualong's operating, investing and financing decisions. The directors of the Company considered that Fukong Hualong was under the unilateral control of the Group and regarded Fukong Hualong as a subsidiary of the Company which was consolidated in the Group's financial statements. On September 30 2019, the new equity holder holding a 25% equity interest in Fukong Hualong terminated the concert with the Company. At the point of termination, the Company's holding ratio remained at 38.25% but Fukong Hualong is no longer under the unilateral control of the Group and Fukong Hualong is regarded as an associate of the Group. Upon the cancellation of concerted agreement, Fukong Hualong is subject to significant influence of the Group and had been accounted for under the equity method since 1 October 2019.

In March 2019, the Company signed an agreement with another three investors over the capital injection into Sci-Tech Park. According to the agreement, the Company will invest RMB20,000,000 and is entitled to 20% of equity interests in Sci-Tech Park and a representation seat on the board of directors. As at 31 December 2019, the investment funds have not been injected in cash. Given the terms in agreement which have clearly stated the time and amount of injection of the investment funds, the investment in the associate was recognised and accounted for under the equity method.

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16. INVESTMENTS IN ASSOCIATES *(continued)*

The following table illustrates the summarised financial information in respect of Fukong Hualong and Sci-Tech Park adjusted for any differences in accounting policies and reconciled to the carrying amount in the consolidated financial statements:

2019	Fukong Hualong RMB'000	Sci-Tech Park RMB'000
Current assets	30,486	115,511
Non-current assets	12,459	3,742
Current liabilities	9,957	23,996
Non-current liabilities	6,590	–
Net assets	26,398	95,257
Reconciliation to the Group's interest in the associates:		
Proportion of the Group's ownership	38.25%	20%
Group's share of net assets of the associate, excluding goodwill	10,097	19,051
Carrying amount of the investment	34,209	19,390
Revenue	24,716	–
Loss for the year	(9,408)	(3,052)
Total comprehensive loss for the year	(9,408)	(3,052)

The following table illustrates the aggregate financial information of the Group's associates that are not individually material:

	2019 RMB'000	2018 RMB'000
Share of the associates' loss for the year	(655)	–
Share of the associates' total comprehensive loss	(655)	–
Aggregate carrying amount of the Group's investments in the associates	2,345	–

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17. EQUITY INVESTMENTS DESIGNATED AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME

	2019 RMB'000	2018 RMB'000
Equity investments designated at fair value through other comprehensive income		
Unlisted equity investments, at fair value		
Shanghai Fudan Communication Co., Ltd.	23,794	21,269
ScaleFlux, Inc	3,488	3,432
eTopus Technology, Inc	3,488	3,431
MuMec, Inc	349	343
	31,119	28,475

The above equity investments were irrevocably designated at fair value through other comprehensive income as the Group considers these investments to be strategic in nature.

18. FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

	2019 RMB'000	2018 RMB'000
Debt investments, at fair value	1,395	1,373

19. INVENTORIES

	2019 RMB'000	2018 RMB'000
Raw materials	256,851	285,481
Work in progress	140,844	137,086
Finished goods	190,383	183,481
	588,078	606,048

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20. TRADE AND BILLS RECEIVABLES

	2019 RMB'000	2018 RMB'000
Trade receivables	468,502	455,166
Bills receivable	199,141	126,115
Impairment	(23,701)	(18,790)
	643,942	562,491

The Group's trading terms with its customers are mainly on credit, except for new customers, where payment in advance is normally required. The credit period is generally between 30 and 90 days. The Group's sales are made to several major customers and there is a concentration of credit risk. The Group seeks to maintain strict control over its outstanding receivables and closely monitors the collection to minimise credit risk. Overdue balances are reviewed regularly by senior management. The Group does not hold any collateral or other credit enhancements over these balances. Trade receivables are non-interest-bearing.

An ageing analysis of the trade and bills receivables as at the end of the reporting period, based on the invoice date and loss allowance, is as follows:

	2019 RMB'000	2018 RMB'000
Within 3 months	343,818	361,119
3 to 6 months	145,856	113,995
6 to 12 months	67,687	44,719
Over 12 months	86,581	42,658
	643,942	562,491

The movements in the loss allowance for impairment of trade and bills receivables are as follows:

	2019 RMB'000	2018 RMB'000
At beginning of year	18,790	18,128
Impairment losses, net (note 6)	5,075	702
Disposal of a subsidiary	(94)	–
Amount written off as uncollectible	(70)	(40)
At end of year	23,701	18,790

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20. TRADE AND BILLS RECEIVABLES (continued)

An impairment analysis is performed at each reporting date using a provision matrix to measure expected credit losses. The provision rates are based on days past due for groupings of various customer segments with similar loss patterns (i.e., by geographical region, product type, customer type and rating, and coverage by letters of credit or other forms of credit insurance). The calculation reflects the probability-weighted outcome, the time value of money and reasonable and supportable information that is available at the reporting date about past events, current conditions and forecasts of future economic conditions. Generally, trade receivables are written off if past due for more than two to three years and are not subject to enforcement activity.

Set out below is the information about the credit risk exposure on the Group's trade receivables using a provision matrix:

As at 31 December 2019

	Past due					Total
	Current	Less than 3 months	3 to 6 months	6 to 9 months	Over 9 months	
Expected credit loss rate	1.25%	1.16%	1.06%	1.00%	17.72%	5.06%
Gross carrying amount (RMB'000)	234,279	56,055	39,811	28,782	109,575	468,502
Expected credit losses (RMB'000)	2,927	648	422	288	19,416	23,701

As at 31 December 2018

	Past due					Total
	Current	Less than 3 months	3 to 6 months	6 to 9 months	Over 9 months	
Expected credit loss rate	1.14%	1.39%	2.01%	2.02%	24.34%	4.13%
Gross carrying amount (RMB'000)	292,826	63,059	27,569	15,333	56,379	455,166
Expected credit losses (RMB'000)	3,328	874	554	309	13,725	18,790

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20. TRADE AND BILLS RECEIVABLES *(continued)*

At 31 December 2019, the Group endorsed certain bills receivable accepted by banks in Mainland China (the “Derecognised Bills”) to certain of its suppliers in order to settle the trade payables due to such suppliers with a carrying amount in aggregate of RMB16,657,000 (2018: RMB15,140,000). The Derecognised Bills had a maturity within one month at the end of the reporting period. In accordance with the Law of Negotiable Instruments in the PRC, the holders of the Derecognised Bills have a right of recourse against the Group if the PRC banks default (the “Continuing Involvement”). In the opinion of the directors, the Group has transferred substantially all risks and rewards relating to the Derecognised Bills. Accordingly, it has derecognised the full carrying amounts of the Derecognised Bills and the associated trade payables. The maximum exposure to loss from the Group’s Continuing Involvement in the Derecognised Bills and the undiscounted cash flows to repurchase these Derecognised Bills is equal to their carrying amounts. In the opinion of the directors, the fair values of the Group’s Continuing Involvement in the Derecognised Bills are not significant.

During the reporting period, the Group has not recognised any gain or loss on the date of transfer of the Derecognised Bills. No gains or losses were recognised from the Continuing Involvement, both during the year and cumulatively. The endorsement has been made evenly throughout the reporting period.

21. PREPAYMENTS, OTHER RECEIVABLES AND OTHER ASSETS

	2019 RMB'000	2018 RMB'000
Prepayments	9,566	23,731
Deposits and other receivables (note 36)	10,934	13,636
	20,500	37,367

None of the above assets is either past due or impaired. The financial assets included in the above balances relate to receivables for which there was no recent history of default and past due amounts. As at 31 December 2019 and 2018, the loss allowance was assessed to be minimal.

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22. CASH AND BANK BALANCES

	2019 RMB'000	2018 RMB'000
Cash and bank balances	268,055	304,878
<i>Including: Time deposits with original maturity of less than three months when acquired</i>	74,881	131,905
<i>Cash on hand and demand deposits</i>	193,174	172,973
Time deposits with original maturity of over three months when acquired	197,355	390,472
Cash and bank balances	465,410	695,350

At the end of the reporting period, the cash and bank balances of the Group denominated in RMB amounted to RMB369,136,000 (2018: RMB524,723,000). The RMB is not freely convertible into other currencies, however, under Mainland China's Foreign Exchange Control Regulations and Administration of Settlement, Sale and Payment of Foreign Exchange Regulations, the Group is permitted to exchange RMB for other currencies through banks authorised to conduct foreign exchange business.

Cash at banks earns interest at floating rates based on daily bank deposit rates. Short term time deposits are made for varying periods of between one day and one year depending on the immediate cash requirements of the Group, and earn interest at the respective short-term time deposit rates. The bank balances are deposited with creditworthy banks with no recent history of default.

23. TRADE PAYABLES

An aged analysis of the trade payables as at the end of the reporting period, based on the invoice date, is as follows:

	2019 RMB'000	2018 RMB'000
Within 3 months	120,993	144,873
3 to 6 months	5,451	964
6 to 12 months	10,057	1,440
Over 12 months	30	40
	136,531	147,317

The trade payables are non-interest-bearing and are normally settled on 90-day terms.

A maturity analysis of the above financial liabilities is set out in note 36 to the financial statements.

The Group had an outstanding account payable due to Fukong Hualong of RMB181,000 as at the end of the reporting period. This balance is unsecured, interest-free and is normally settled on 90-day terms.

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24. OTHER PAYABLES, ACCRUALS AND DEFERRED INCOME

	Notes	31 December 2019 RMB'000	31 December 2018 RMB'000
Current liabilities:			
Payable for the purchase of software		6,670	2,201
Accruals		4,693	4,185
Contract liabilities	(a)	14,033	11,231
Deferred income	(b)	90,804	110,128
Other payables	(c)	172,866	140,150
		289,066	267,895
Non-current liability:			
Deferred income		47,763	20,070

Notes:

- (a) Details of contract liabilities are as follows:

	31 December 2019 RMB'000	31 December 2018 RMB'000
<i>Short-term advances received from customers</i>		
Sale of goods	12,537	9,574
Rendering of services	1,496	1,657
Total contract liabilities	14,033	11,231

Contract liabilities include short-term advances received to deliver IC products and render testing services. The increase in contract liabilities in 2019 and 2018 was mainly due to the increase in short-term advances received from customers in relation to IC products at the end of the year.

- (b) Deferred income represents the government grants received, which are related to assets and should be recorded as deferred income that was recognised in profit or loss on a systematic basis over the useful lives of the assets, and which are related to expenses to be incurred in subsequent periods or to which there were unfulfilled conditions, and should be recorded as deferred income that was recognised in profit or loss over the periods in which the related costs are recognised or conditions are fulfilled.
- (c) Other payables are non-interest-bearing and have an average term of one to three months.

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26. DEFERRED TAX

The movements in deferred tax liabilities and assets during the year are as follows:

Deferred tax assets

2019

	Inventories RMB'000	Impairment of assets RMB'000	Government grants RMB'000	Lease liabilities RMB'000	Temporary differences related to accruals and other payables RMB'000	Total RMB'000
At 31 December 2018	267	123	5,742	–	117	6,249
Effect of adoption of HKFRS 16	–	–	–	5,492	–	5,492
At 1 January 2019 (restated)	267	123	5,742	5,492	117	11,741
Deferred tax credited/ (charged) to profit or loss	38	16	1,184	1,005	(47)	2,196
Gross deferred tax assets at 31 December 2019	305	139	6,926	6,497	70	13,937

Deferred tax liabilities

	Lease liabilities RMB'000	Fair value adjustments of equity investments at fair value through other comprehensive income RMB'000	Total RMB'000
At 31 December 2018	–	2,128	2,128
Effect of adoption of HKFRS 16	5,492	–	5,492
At 1 January 2019 (restated)	5,492	2,128	7,620
Deferred tax credited to profit or loss	766	–	766
Deferred tax credited to other comprehensive income	–	379	379
Gross deferred tax liabilities at 31 December 2019	6,258	2,507	8,765

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26. DEFERRED TAX (continued)

Deferred tax assets

2018

	At 1 January 2018 RMB'000	Effect of adoption of HKFRS 9 RMB'000	At 1 January 2018 (restarted) RMB'000	Deferred tax (charged)/ credited to profit or loss during the year* RMB'000	Deferred tax assets at 31 December 2018 RMB'000
Inventories	263	–	263	4	267
Impairment of assets	10,853	368	11,221	(11,098)	123
Depreciation of property, plant and equipment, and amortization of intangible assets	4,859	–	4,859	(4,859)	–
Government grants	10,965	–	10,965	(5,223)	5,742
Temporary differences related to accruals and other payables	3,109	–	3,109	(2,992)	117
Total	30,049	368	30,417	(24,168)	6,249

* According to tax rule “Notice to Increase R&D Super-deduction Percentage”, Caishui [2018] No. 99 jointly published by Ministry of Finance, State Taxation Administration and the Ministry of Science and Technology on 20 September 2018, the Company is entitled to a 75% R&D super-deduction effective from 1 January 2018. The Company estimated that the deductible temporary differences shall not be utilised because of the sufficient R&D deduction in the future. Therefore, the Company did not recognise deferred tax assets arising from the deductible temporary differences as of 31 December 2019.

Deferred tax liabilities

	At 1 January 2018 RMB'000	Effect of adoption of HKFRS 9 RMB'000	At 1 January 2018 (restarted) RMB'000	Deferred tax charged to other comprehensive income during the year RMB'000	Deferred tax liabilities at 31 December 2018 RMB'000
Fair value adjustments of equity investments at fair value through other comprehensive income	–	1,927	1,927	201	2,128
Total	–	1,927	1,927	201	2,128

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26. DEFERRED TAX (continued)

For presentation purposes, certain deferred tax assets and liabilities have been offset in the statement of financial position. The following is an analysis of the deferred tax balances of the Group for financial reporting purposes:

	2019 RMB'000	2018 RMB'000
Net deferred tax assets recognised in the consolidated statement of financial position	7,679	6,249
Net deferred tax liabilities recognised in the consolidated statement of financial position	(2,507)	(2,128)
Net deferred tax assets in the respect of continuing operations	5,172	4,121

Deferred tax assets have not been recognised in respect of the following items:

	2019 RMB'000	2018 RMB'000
Tax losses	555,143	15,413
Deductible temporary differences	353,535	38,695
	908,678	54,108

The Group has tax losses arising in Hong Kong of RMB5,782,000(2018: Nil) that are available indefinitely for offsetting against future taxable profits of the companies. The Group has tax losses arising in the United States of America of RMB7,666,000 (2018: RMB5,038,000) that will expire in one to twenty years for state tax and available indefinitely for federal tax for offsetting against future taxable profits. The Group has tax losses arising in Mainland China of RMB541,867,000 (2018: RMB111,685,000) that will expire in one to ten years for offsetting against future taxable profits. Deferred tax assets have not been recognised in respect of the above items as they have arisen in subsidiaries that have been loss-making for some time and it is not considered probable that taxable profits will be available against which the tax losses and deductible temporary differences can be utilised.

There are no income tax consequences attaching to the payment of dividends by the Company to its shareholders.

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27. SHARE CAPITAL

	2019 RMB'000	2018 RMB'000
Registered, issued and fully paid:		
410,172,000 (2018: 410,172,000) unlisted domestic shares of RMB0.10 each	41,017	41,017
284,330,000 (2018: 284,330,000) H shares of RMB0.10 each	28,433	28,433
	69,450	69,450

A summary of movements in the Company's share capital is as follows:

	Number of shares in issue	Share capital RMB'000
At 1 January 2018	659,330,000	65,933
Placing of shares (Note (a))	35,172,000	3,517
At 31 December 2018	694,502,000	69,450
At 1 January 2019 and 31 December 2019	694,502,000	69,450

Note:

- (a) Placing of shares was completed on 18 December 2018, at an issue price of RMB5.73 per share, resulting in the issue of 35,172,000 shares for a total cash consideration, before expenses, of RMB201,536,000.

28. SHARE-BASED PAYMENT

The Company operates an employee share subscription plan (the "ESSP") by way of non-public issuance of new domestic shares to four partnership firms for the purpose of providing incentives and rewards to eligible participants. Eligible participants of the ESSP include the Group's core management and technical personnel.

The relevant approval by the directors was obtained on 12 December 2018, pursuant to which the date of grant for the ESSP was set on 12 December 2018.

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28. SHARE-BASED PAYMENT *(continued)*

Pursuant to the ESSP, a total of 35,172,000 shares (RMB0.10 par value) were granted to eligible participants at the cash consideration of RMB5.73 per share through four partnership firms. The lock-up period imposed by the ESSP is to be a term commencing from the date of grant and ending on the expiry date of a 3-year service period, which commences from the date when the Company has completed the update of business licence registration for the ESSP. On 14 February 2019, the Company completed the update of business license registration.

As of 31 December 2018, the Company received a total of RMB201,536,000 cash consideration for the ESSP, of which RMB3,517,200 was credited to issued capital and RMB197,198,000 to reserve after deduction of issuance expenses. The fair value of the shares granted on the date of grant was RMB205,756,000. The differences between the consideration received and the fair value of shares granted was RMB4,220,000, of which the Group has recognised an amount of RMB1,320,000 during the year ended 31 December 2019 (2018: RMB69,000) as equity-settled share-based expense, which was credited to reserves.

Fair value of the shares granted on the date of grant was determined based on the market-based approach, under which the Company's share price was adjusted for the lack of marketability.

29. RESERVES

The amounts of the Group's reserves and the movements therein for the current and prior years are presented in the consolidated statement of changes in equity on pages 53 and 54 of the financial statements.

(i) Share premium

In 2018, the Company implemented a share incentive scheme and granted a total of 35,172,000 shares to eligible executives and employees through four partnership firms. As of 31 December 2018, the Company received a total of RMB201,536,000 cash consideration for the ESSP, of which RMB3,517,200 was credited to issued capital and RMB197,198,000 to reserve after deduction of issuance expenses. The details are given in note 28 to the financial statements.

At 31 December 2019, in accordance with the Company Law of the PRC, the Company's share premium account of approximately RMB547,076,000 (2018: RMB545,756,000) was available for distribution by way of a future capitalisation issue.

(ii) Statutory surplus reserve

In accordance with the Company Law of the PRC and the articles of association of the Company and its subsidiaries in Mainland China, the Company and the subsidiaries are required to allocate 10% of their profit after tax (after deducting accumulated losses incurred in previous years), as determined in accordance with the applicable PRC accounting standards and regulations (the "PRC accounting standards"), to the statutory surplus reserve (the "SSR") until such reserve reaches 50% of the registered capital of the respective companies. Subject to certain restrictions set out in the Company Law of the PRC and the articles of association of the Company and its PRC subsidiaries, the SSR may be capitalised as share capital, provided that the remaining balance after the capitalisation is not less than 25% of the registered capital.

29. RESERVES *(continued)*

(ii) Statutory surplus reserve *(continued)*

As the SSR had reached 50% of the registered capital of the Company before 31 December 2012, the directors of the Company have not proposed any transfer of profit after tax to the SSR since 31 December 2012.

The directors of the Company's PRC subsidiaries have proposed to transfer RMB1,960,000 (2018: RMB2,531,000) in total to the SSR. The transfer represents 10% of the Company's PRC subsidiaries' profit after tax, as determined in accordance with the PRC accounting standards, and is attributable to the owners of the parent. The transfer has been incorporated in these financial statements.

(iii) Other reserves

In April 2014, Sino IC increased its issued shares from 31,000,000 shares to 42,000,000 shares. The issue price was RMB5 per share. The Company and the non-controlling shareholders subscribed for 1,006,000 shares and 9,994,000 shares, respectively. The excess of the consideration contributed by the non-controlling interests over the net asset value of Sino IC shared by the non-controlling interests upon completion of the capital injection, amounting to RMB7,821,000, was recognised directly in the other reserves account.

In December 2016, Fukong Hualong increased its issued shares from 30,000,000 shares to 40,000,000 shares. The issue price was RMB2 per share. The Company subscribed for nil shares in the transaction. The excess of the consideration contributed by the non-controlling interests over the net asset value of Fukong Hualong shared by the non-controlling interests upon completion of the capital injection, amounting to RMB6,922,000, was recognised directly in the other reserves account.

(iv) Retained profits

According to the relevant regulations of the PRC, the amount of retained profits available for distribution is the lower of the amount determined under the PRC accounting standards and the amount determined under HKFRSs.

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30. A PARTLY-OWNED SUBSIDIARY WITH MATERIAL NON-CONTROLLING INTERESTS

Details of the Group's subsidiary that has material non-controlling interests are set out below:

	2019	2018
Percentage of equity interest held by non-controlling interests Sino IC	49.7%	49.7%

	2019 RMB'000	2018 RMB'000
Profit for the year allocated to non-controlling interests Sino IC	19,376	15,964
Dividends paid to non-controlling interests Sino IC	9,394	11,270
Accumulated balances of non-controlling interests at the reporting date: Sino IC	153,690	143,659

The following tables illustrate the summarised information of the above subsidiary. The amounts disclosed are before any inter-company eliminations:

Sino IC	2019 RMB'000	2018 RMB'000
Revenue	145,854	130,703
Other income	55,159	50,793
Total costs and expenses	(159,068)	(145,028)
Income tax	(2,966)	(4,296)
Profit for the year	38,979	32,172
Total comprehensive income for the year	38,979	32,172

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30. A PARTLY-OWNED SUBSIDIARY WITH MATERIAL NON-CONTROLLING INTERESTS *(continued)*

Sino IC	2019 RMB'000	2018 RMB'000
Current assets	227,010	241,383
Non-current assets	196,409	137,696
Current liabilities	(50,653)	(73,502)
Non-current liabilities	(61,555)	(14,445)
Net cash flows from operating activities	66,096	95,712
Net cash flows used in investing activities	(35,755)	(89,830)
Net cash flows used in financing activities	(24,291)	(22,680)
Net increase/(decrease) in cash and cash equivalents	5,960	(17,039)

The profit or loss and net assets of the other subsidiaries attributable to the non-controlling interests are not material to the Group.

31. DISPOSAL OF A SUBSIDIARY

	Note	2019 RMB'000
Net assets disposed of:		
Property, plant and equipment		2,474
Prepayments and other receivables		1,934
Other intangible assets		11,412
Inventories		4,934
Trade and bills receivables		10,559
Cash and bank balances		9,837
Trade payables		(2,793)
Accruals and other payables		(14,511)
Non-controlling interests		(14,725)
Gain on disposal of a subsidiary	5, 6	24,845
		33,966
Satisfied by:		
Fair value of remaining equity investment in an associate		33,966

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31. DISPOSAL OF A SUBSIDIARY *(continued)*

An analysis of the net outflow of cash and cash equivalents in respect of the disposal of a subsidiary is as follows:

	2019 RMB'000
Cash consideration	–
Cash and bank balances disposed of	(9,837)
Net outflow of cash and cash equivalents in respect of the disposal of a subsidiary	(9,837)

32. NOTE TO THE CONSOLIDATED STATEMENT OF CASH FLOWS

(a) Major non-cash transactions

During the year, the Group had non-cash additions to right-of-use assets and lease liabilities of RMB15,570,000 and RMB15,570,000, respectively, in respect of lease arrangements for plant and offices (2018: Nil).

(b) Changes in liabilities arising from financing activities

2019

	Bank loans RMB'000	Lease liabilities RMB'000
At 31 December 2018		
Effect of adoption of HKFRS 16	–	36,615
At 1 January 2019 (restated)	–	36,615
Changes from financing cash flows	–	(8,623)
Inclusive of:		
New bank loans	46,760	–
Repayment of bank loans	(46,760)	–
New leases	–	15,570
Interest expense	316	2,283
Interest payment	(316)	(2,283)
At 31 December 2019	–	43,562

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32. NOTE TO THE CONSOLIDATED STATEMENT OF CASH FLOWS *(continued)*

(b) Changes in liabilities arising from financing activities *(continued)*

2018

	Bank loans RMB'000
At 1 January 2018	–
Changes from financing cash flows	–
Inclusive of:	
New bank loans	28,398
Repayment of bank loans	(28,398)
Interest expense	128
Interest payment	(128)
At 31 December 2018	–

(c) Total cash outflow for leases

The total cash outflow for leases included in the statement of cash flows is as follows:

	2019 RMB'000
Within financing activities	(10,906)

33. CONTINGENT LIABILITIES

As at 31 December 2019, the Group had no significant contingent liabilities (2018: Nil).

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34. COMMITMENTS

The Group had the following commitments at the end of the reporting period:

(a) **The Group had the following capital commitments at the end of the reporting period**

	2019 RMB'000	2018 RMB'000
Contracted, but not provided for: Property, plant and equipment	29,360	8,523

(b) **Operating lease commitments as at 31 December 2018**

The Group leases certain of its office properties under operating lease arrangements, with leases negotiated for terms ranging from one to five years.

At 31 December 2018, the Group had total future minimum lease payments under non-cancellable operating leases falling due as follows:

	2018 RMB'000
Within one year	13,043
In the second to fifth years, inclusive	4,997
More than five years	–
	18,040

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35. RELATED PARTY TRANSACTIONS

- (a) In addition to the transactions and balances detailed elsewhere in these financial statements, the Group had the following transactions with related parties during the year:

	Notes	2019 RMB'000	2018 RMB'000
Technical and equipment support fee paid to the owner of one of the shareholders of the Company	(i)	57	69
Technical development fee	(ii)	1,311	97
Technical development income	(iii)	660	–
Purchase of products	(iv)	84	–
Sales of products	(v)	1,143	–
		3,255	166

Notes:

- (i) On 12 August 2003, the Company and Fudan University, the owner of one of the substantial shareholders of the Company, entered into an agreement under which the Company was required to pay a technical and equipment support fee to Fudan University based on a price mutually agreed by the two parties. The annual technical support fee payable to Fudan University for the year ended 31 December 2019 amounted to RMB57,000 (2018: RMB69,000).

- (ii) On 7 July 2017, Fukong Hualong and Fudan University, entered into an agreement under which the Fukong Hualong was required to pay a technical development fee to Fudan University when the development completed in 2018. The annual technical development fee payable to Fudan University for the year ended 31 December 2018 amounted to RMB97,000.

On 10 December 2018, Fukong Hualong and the Company entered into an agreement under which the Company was required to pay a technical development fee to Fukong Hualong when the development completed. The annual technical development fee payable to Fukong Hualong since 1 October 2019 when Fukong Hualong became an associate of the Group amounted to RMB1,311,000.

- (iii) On 30 October 2019, the Company and Fudan University entered into an agreement under which the Fudan University was required to pay a technical development fee to the Company when the development completed in 2019. The annual technical development income receivable from Fudan University for the year ended 31 December 2019 amounted to RMB660,000.

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35. RELATED PARTY TRANSACTIONS (continued)

(a) (continued)

Notes: (continued)

- (iv) On 10 April 2017, Fukong Hualong and the Company entered into an agreement under which the Company purchased products from Fukong Hualong. The annual purchase of products payable to Fukong Hualong since 1 October 2019 when Fukong Hualong became an associate of the Group amounted to RMB84,000.
- (v) On 10 April 2017, Fukong Hualong and the Company entered into an agreement under which the Company sold products to Fukong Hualong. The sales since 1 October 2019 amounted to RMB441,000.

On 13 November 2019, Shanghai Fudan Communication Co., Ltd. and the Company entered into an agreement under which the Company sold products to Shanghai Fudan Communication Co. The annual sales of products receivable from Shanghai Fudan Communication Co. for the year ended 31 December 2019 amounted to RMB702,000.

(b) Outstanding balances with related parties:

The Group had an outstanding account payable due to Fukong Hualong of RMB181,000 as at the end of the reporting period. This balance is unsecured, interest-free and has no fixed terms of repayment.

(c) Compensation of key management personnel of the Group:

	2019 RMB'000	2018 RMB'000
Directors' and chief executive's remuneration	8,085	7,987
Salaries, allowances and benefits in kind – other key management personnel	3,912	2,722
Equity-settled compensation	91	4
Total compensation paid to key management personnel	12,088	10,713

In 2018, the Company implemented a share incentive scheme and granted a total of 35,172,000 shares to eligible executives and employees through four partnership firms. Four members of key management personnel participated in the share incentive scheme, subscribed 2,434,000 shares in total with a cash consideration of RMB13,947,000, the fair value of which was RMB14,239,000.

Further details of directors' and the chief executive's emoluments are included in note 8 to the financial statements.

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36. FINANCIAL INSTRUMENTS BY CATEGORY

The carrying amounts of each of the categories of financial instruments as at the end of the reporting period are as follows:

2019

Financial assets

	Financial assets at amortised cost RMB'000	Financial assets at fair value through other comprehensive income		Financial assets at fair value through profit or loss Mandatorily designated as such RMB'000	Total RMB'000
		Equity investment RMB'000	Debt investment RMB'000		
Trade and bills receivables	444,801	–	199,141	–	643,942
Financial assets included in prepayments, other receivables and other assets (note 21)	10,934	–	–	–	10,934
Cash and bank balances	465,410	–	–	–	465,410
Equity investments at fair value through other comprehensive income	–	31,119	–	–	31,119
Financial assets at fair value through profit or loss	–	–	–	1,395	1,395
	921,145	31,119	199,141	1,395	1,152,800

Financial liabilities

	Financial liabilities at amortised cost RMB'000
Trade payables	136,531
Other borrowings	43,562
Financial liabilities included in other payables, accruals and deferred income (note 24)	184,229
	364,322

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36. FINANCIAL INSTRUMENTS BY CATEGORY (continued)

2018

Financial assets

	Financial assets at amortised cost RMB'000	Financial assets at fair value through other comprehensive income Equity investment RMB'000	Debt investment RMB'000	Financial assets at fair value through profit or loss Mandatorily designated as such RMB'000	Total RMB'000
Trade and bills receivables	455,166	–	126,115	–	581,281
Financial assets included in prepayments, other receivables and other assets (note 21)	13,636	–	–	–	13,636
Cash and bank balances	695,350	–	–	–	695,350
Equity investment at fair value through other comprehensive income	–	28,475	–	–	28,475
Financial assets at fair value through profit or loss	–	–	–	1,373	1,373
	1,164,152	28,475	126,115	1,373	1,320,115

Financial liabilities

	Financial liabilities at amortised cost RMB'000
Trade payables	147,317
Financial liabilities included in other payables, accruals and deferred income (note 24)	146,536
	293,853

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS

The carrying amounts and fair values of the Group's financial instruments, other than those with carrying amounts that reasonably approximate to fair values, are as follows:

	Carrying amounts		Fair values	
	2019 RMB'000	2018 RMB'000	2019 RMB'000	2018 RMB'000
Financial assets				
Equity investments designated at fair value through other comprehensive income	31,119	28,475	31,119	28,475
Financial assets at fair value through profit or loss	1,395	1,373	1,395	1,373
Bills receivable	199,141	126,115	199,141	126,115
	231,655	155,963	231,655	155,963

Management has assessed that the fair values of cash and bank balances, trade and bills receivables, trade payables, financial assets included in prepayments, other receivables and other assets, financial liabilities included in other payables, accruals and deferred income, and amounts due from/to subsidiaries approximate to their carrying amounts largely due to the short term maturities of these instruments.

The Group's finance department headed by the finance manager is responsible for determining the policies and procedures for the fair value measurement of financial instruments. The finance manager reports directly to the chief financial officer and the audit committee. At each reporting date, the finance department analyses the movements in the values of financial instruments and determines the major inputs applied in the valuation. The valuation is reviewed and approved by the chief financial officer. The valuation process and results are discussed with the audit committee twice a year for interim and annual financial reporting.

The fair values of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties, other than in a forced or liquidation sale. The following methods and assumptions were used to estimate the fair values:

The fair values of unlisted equity investments designated at fair value through other comprehensive income have been estimated using a discounted cash flow valuation model based on assumptions that are not supported by observable market prices or rates. The valuation requires the directors to make estimates about the expected future cash flows including expected future dividends and proceeds on subsequent disposal of the shares. The directors believe that the estimated fair values resulting from the valuation technique, which are recorded in the consolidated statement of financial position, and the related changes in fair values, which are recorded in other comprehensive income, are reasonable, and that they were the most appropriate values at the end of the reporting period.

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS *(continued)*

Below is a summary of significant unobservable inputs to the valuation of financial instruments together with a quantitative sensitivity analysis as at 31 December 2019 and 2018:

	Valuation technique	Significant unobservable input	Range	Sensitivity of fair value to the input
Unlisted equity investments	Discounted cash flow model	Long-term growth rate	2019: 3% (2018:3%)	1% increase/ (decrease) in multiple would have no material impact on the fair value
		Weighted average cost of capital (WACC)	2019: 14% (2018:14%)	1% increase/ (decrease) in multiple would have no material impact on the fair value
		Discount for lack of marketability	2019: 20% (2018:20%)	1% increase/ (decrease) in multiple would have no material impact on the fair value
		Discount for minority interest	2019: 15% (2018:15%)	1% increase/ (decrease) in multiple would have no material impact on the fair value

The discount for lack of marketability represents the amounts of premiums and discounts determined by the Group that market participants would take into account when pricing the investments.

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS *(continued)*

Fair value hierarchy

The following tables illustrate the fair value measurement hierarchy of the Group's financial instruments:

Assets measured at fair value:

As at 31 December 2019

	Fair value measurement using			Total RMB'000
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	
Equity investments designated at fair value through other comprehensive income	–	–	31,119	31,119
Financial assets at fair value through profit or loss	–	–	1,395	1,395
Bills receivable	–	199,141	–	199,141
	–	199,141	32,514	231,655

As at 31 December 2018

	Fair value measurement using			Total RMB'000
	Quoted prices in active markets (Level 1) RMB'000	Significant observable inputs (Level 2) RMB'000	Significant unobservable inputs (Level 3) RMB'000	
Equity investments designated at fair value through other comprehensive income	–	–	28,475	28,475
Financial assets at fair value through profit or loss	–	–	1,373	1,373
Bills receivable	–	126,115	–	126,115
	–	126,115	29,848	155,963

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37. FAIR VALUE AND FAIR VALUE HIERARCHY OF FINANCIAL INSTRUMENTS *(continued)*

Fair value hierarchy *(continued)*

Assets measured at fair value: *(continued)*

The movements in fair value measurements within Level 3 during the year are as follows:

	2019 RMB'000	2018 RMB'000
Equity investments at fair value through other comprehensive income:		
At 1 January	28,475	22,534
Total gains recognised in other comprehensive income	2,525	2,002
Purchases	–	3,774
Exchange realignment	119	165
At 31 December	31,119	28,475

	2019 RMB'000	2018 RMB'000
Financial assets at fair value through profit or loss:		
At 1 January	1,373	–
Total gains recognised in in the statement of profit or loss	–	–
Purchases	–	1,373
Exchange realignment	22	–
At 31 December	1,395	1,373

The Group did not have any financial liabilities measured at fair value as at 31 December 2019 and 31 December 2018.

During the year, there were no transfers of fair value measurements between Level 1 and Level 2 and no transfers into or out of Level 3 for both financial assets and financial liabilities (2018: Nil).

38. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Group's principal financial instruments comprise cash and short term time deposits. The main purpose of these financial instruments is to raise finance for the Group's operations. The Group has various other financial assets and liabilities such as trade and bills receivables, deposits and other receivables, trade and bills payables and accruals and other payables, which arise directly from its operations.

The main risks arising from the Group's financial instruments are foreign currency risk, credit risk and liquidity risk. The board of directors believes that the Group is not exposed to any material interest rate risk as Group does not have any debt obligations that are subject to fluctuations in market interest rates. The board of directors reviews and agrees policies for managing each of these risks and they are summarised below.

Foreign currency risk

The Group has transactional currency exposures. Such exposures arise from sales or purchases by operating units in currencies other than the units' functional currencies. Approximately 7% (2018: 10%) of the Group's sales are denominated in currencies other than the functional currency of the operating units making the sale, whilst almost 34% (2018: 40%) of costs are denominated in the units' functional currencies. The Group keeps monetary items in foreign currencies at a certain level in order to meet the needs of purchases that are denominated in foreign currencies. It is the Group's policy not to enter into forward contracts until a firm commitment is in place.

The following table demonstrates the sensitivity at the end of the reporting period to a reasonably possible change in the US and HK exchange rates, with all other variables held constant, of the Group's loss before tax (due to changes in the fair values of monetary assets and liabilities).

	Increase/ (decrease) in foreign currency exchange rate %	Increase/ (decrease) in (loss)/ profit before tax RMB'000	Increase/ (decrease) in equity* RMB'000
2019			
If RMB weakens against US	+5	1,338	–
If RMB strengthens against US	-5	(1,338)	–
If RMB weakens against HK\$	+5	–	–
If RMB strengthens against HK\$	-5	–	–
2018			
If RMB weakens against US	+5	4,677	–
If RMB strengthens against US	-5	(4,677)	–
If RMB weakens against HK\$	+5	2,244	–
If RMB strengthens against HK\$	-5	(2,244)	–

* Excluding retained profits

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38. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(continued)*

Credit risk

The Group trades only with recognised and creditworthy third parties. It is the Group's policy that all customers who wish to trade on credit terms are subject to credit verification procedures. In addition, receivable balances are monitored on an ongoing basis and the Group's exposure to bad debts is not significant. For transactions that are not denominated in the functional currency of the relevant operating unit, the Group does not offer credit terms without the specific approval of management.

Maximum exposure and year-end staging

As at 31 December 2019

	12 months ECLs		Lifetime ECLs		Simplified approach	Total
	Stage 1	Stage 2	Stage 3			
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Trade and bills receivables*	–	–	–	–	667,643	667,643
Financial assets included in prepayments, other receivables and other assets – Normal**	10,934	–	–	–	–	10,934
Cash and bank balances – Not yet past due	465,410	–	–	–	–	465,410
	476,344	–	–	–	667,643	1,143,987

As at 31 December 2018

	12-month ECLs		Lifetime ECLs		Simplified approach	Total
	Stage 1	Stage 2	Stage 3			
	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000	RMB'000
Trade receivables*	–	–	–	–	455,166	455,166
Financial assets included in prepayments, other receivables and other assets – Normal**	13,636	–	–	–	–	13,636
Cash and bank balances – Not yet past due	695,350	–	–	–	–	695,350
	708,986	–	–	–	455,166	1,164,152

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31 December 2019

38. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(continued)*

Credit risk *(continued)*

* For trade and bills receivables to which the Group applies the simplified approach for impairment, information based on the provision matrix is disclosed in note 20 to the financial statements.

** The credit quality of the financial assets included in prepayments, other receivables and other assets is considered to be “normal” when they are not past due and there is no information indicating that the financial assets had a significant increase in credit risk since initial recognition. Otherwise, the credit quality of the financial assets is considered to be “doubtful”.

Further quantitative data in respect of the Group’s exposure to credit risk arising from trade receivables are disclosed in note 20 to the financial statements. Since the Group trades only with recognised and creditworthy third parties, there is no requirement for collateral. Concentrations of credit risk are managed by customer. At the end of the reporting period, the Group had certain concentrations of credit risk as the Group’s sales are made to several major customers, with 4% (2018: 19%) of the Group’s trade and bills receivables due from the Group’s five largest customers within the design, development and sale of IC products segment. The Group seeks to maintain strict control over its outstanding receivables and closely monitors the collection to minimise credit risk.

Liquidity risk

The Group monitors its risk to a shortage of funds using a recurring liquidity planning tool. This tool considers the maturity of both its financial instruments and financial assets (e.g., trade and bills receivables) and projected cash flows from operations. The Group’s objective is to maintain a balance between continuity of funding and flexibility through the use of lease liabilities.

The maturity profile of the Group’s financial liabilities as at the end of the reporting period, based on the contractual undiscounted payments, is as follows:

	On demand RMB’000	Less than 3 months RMB’000	3 to less than 12 months RMB’000	1 year to 5 years RMB’000	Over 5 years RMB’000	Total RMB’000
31 December 2019						
Trade payables	15,538	120,993	–	–	–	136,531
Lease liabilities	–	–	12,853	31,435	5,970	50,258
Financial liabilities included in other payables, accruals and deferred income	129,423	51,807	2,543	456	–	184,229
	144,961	172,800	15,396	31,891	5,970	371,018

Notes to Financial Statements

31 December 2019

38. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(continued)*

Liquidity risk *(continued)*

	On demand RMB'000	Less than 3 months RMB'000	3 to less than 12 months RMB'000	1 year to 5 years RMB'000	Total RMB'000
31 December 2018					
Trade payables	2,447	144,870	–	–	147,317
Financial liabilities included in other payables, accruals and deferred income	124,564	12,130	9,534	308	146,536
	127,011	157,000	9,534	308	293,853

Capital management

The primary objectives of the Group's capital management are to safeguard the Group's ability to continue as a going concern and to maintain healthy capital ratios in order to support its business and maximise shareholders' value.

The Group manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. To maintain or adjust the capital structure, the Group may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares. The Group is not subject to any externally imposed capital requirements. No changes were made in the objectives, policies or processes for managing capital during the years ended 31 December 2019 and 31 December 2018.

Notes to Financial Statements

31 December 2019

38. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES *(continued)*

Capital management *(continued)*

The Group monitors capital using a gearing ratio, which is the total liabilities divided by the net assets. The gearing ratios as at the end of the reporting periods were as follows:

	31 December 2019 RMB'000	1 January 2019 RMB'000	31 December 2018 RMB'000
Total liabilities	520,086	475,969	439,354
Net assets	1,938,286	2,107,440	2,107,440
Gearing ratio	26.8%	22.6%	20.8%

Note: The Group has adopted HKFRS 16 using the modified retrospective approach and the effect of the initial adoption is adjusted against the opening balances as at 1 January 2019 with no adjustments to the comparative amounts as at 31 December 2018. This has resulted in an increase in the Group's total liabilities and hence the Group's gearing ratio increased from 20.8% to 21.4% on 1 January 2019 when compared with the position as at 31 December 2018.

39. EVENTS AFTER THE REPORTING PERIOD

The wide spread of the novel coronavirus in China since the beginning of 2020 is a fluid and challenging situation facing all industries. The Group has already assessed the overall impact from the situation on the operation of the Group and taken all possible effective measures to limit and keep the impact under control. The Group will continue to monitor and timely respond and adjust in the future.

The Group does not have other significant subsequent events.

40. COMPARATIVE AMOUNTS

As further explained in note 2.2 to the financial statements, the Group adopted HKFRS 16 on 1 January 2019 using the modified retrospective approach. Under this approach, the comparative amounts in the financial statements were not restated and continued to be reported under the requirements of the previous standard, HKAS 17, and related interpretations.

Notes to Financial Statements

31 December 2019

41. STATEMENT OF FINANCIAL POSITION OF THE COMPANY

Information about the statement of financial position of the Company at the end of the reporting period is as follows:

	2019 RMB'000	2018 RMB'000
NON-CURRENT ASSETS		
Property, plant and equipment	267,934	267,317
Right-of-use assets	6,987	–
Other intangible assets	176,520	175,822
Investment in associates	31,010	3,000
Investments in subsidiaries	67,490	76,561
Equity investments at fair value through other comprehensive income	23,794	21,269
Deferred tax assets	–	–
Prepayments for equipment	3,075	2,310
Total non-current assets	576,810	546,279
CURRENT ASSETS		
Inventories	590,297	597,015
Due from subsidiaries	30,698	47,491
Trade and bills receivables	601,655	510,990
Prepayments, and other receivables and other assets	11,395	27,932
Tax recoverable	–	11,264
Cash and bank balances	237,507	420,017
Total current assets	1,471,552	1,614,709
CURRENT LIABILITIES		
Due to subsidiaries	3,671	3,760
Trade payables	135,452	144,732
Other borrowings	5,385	–
Other payables, accruals and deferred income	242,942	180,611
Total current liabilities	387,450	329,103
NET CURRENT ASSETS	1,084,102	1,285,606
TOTAL ASSETS LESS CURRENT LIABILITIES	1,660,912	1,831,885
NON-CURRENT LIABILITIES		
Other borrowings	1,970	–
Deferred income	17,020	5,624
Deferred tax liabilities	2,506	2,127
Total non-current liabilities	21,496	7,751
Net assets	1,639,416	1,824,134
EQUITY		
Share capital	69,450	69,450
Reserves (note)	1,569,966	1,754,684
Total equity	1,639,416	1,824,134

Shi Lei
Director

Cheng Junxia
Director

Notes to Financial Statements

31 December 2019

41. STATEMENT OF FINANCIAL POSITION OF THE COMPANY (continued)

Note:

A summary of the Company's reserves is as follows:

	Share premium account RMB'000	Fair value reserve of financial assets at fair value through other comprehensive income RMB'000	Statutory surplus reserve RMB'000	Other reserves RMB'000	Retained profits RMB'000	Total RMB'000
Balance at 1 January 2018	348,489	–	35,478	–	1,059,810	1,443,777
Effect of adoption of HKFRS 9	–	8,841	–	–	5,197	14,038
Balance at 1 January 2018	348,489	8,841	35,478	–	1,065,007	1,457,815
Profit for the year	–	–	–	–	97,800	97,800
Other comprehensive income for the year: Change in fair value of equity investments at fair value through other comprehensive income, net of tax	–	1,802	–	–	–	1,802
Total comprehensive income for the year	–	1,802	–	–	97,800	99,602
Issue of shares	198,019	–	–	–	–	198,019
Share issue expenses	(821)	–	–	–	–	(821)
Equity-settled share-based expenses	69	–	–	–	–	69
Balance at 31 December 2018	545,756	10,643	35,478	–	1,162,807	1,754,684

Notes to Financial Statements

31 December 2019

41. STATEMENT OF FINANCIAL POSITION OF THE COMPANY (continued)

Note: (continued)

	Share premium account RMB'000	Fair value reserve of financial assets at fair value through other comprehensive income RMB'000	Statutory surplus reserve RMB'000	Other reserves RMB'000	Retained profits RMB'000	Total RMB'000
At 1 January 2019	545,756	10,643	35,478	–	1,162,807	1,754,684
Loss for the year	–	–	–	–	(188,309)	(188,309)
Other comprehensive income for the year:						
Change in fair value of equity investments at fair value through other comprehensive income, net of tax	–	2,146	–	–	–	2,146
Total comprehensive income/(loss) for the year	–	2,146	–	–	(188,309)	(186,163)
Share of equity movement of associate	–	–	–	3,825	(3,700)	125
Equity-settled share-based expenses	1,320	–	–	–	–	1,320
At 31 December 2019	547,076	12,789	35,478	3,825	970,798	1,569,966

42. APPROVAL OF THE FINANCIAL STATEMENTS

The financial statements were approved and authorised for issue by the board of directors on 25 March 2020.

Five Year Financial Summary

A summary of the results and of the assets, liabilities and non-controlling interests of the Group for the last five financial years, as extracted from the published audited financial statements and restated/reclassified as appropriate, is set out below.

	Year ended 31 December				
	2019 RMB'000	2018 RMB'000	2017 RMB'000	2016 RMB'000	2015 RMB'000
RESULTS					
REVENUE	1,454,772	1,409,630	1,398,230	1,187,490	1,039,725
Cost of sales	(937,993)	(766,461)	(706,174)	(556,198)	(489,416)
Gross profit	516,779	643,169	692,056	631,292	550,309
Other income and gains	161,882	149,171	144,433	162,985	83,080
Selling and distribution expenses	(85,198)	(86,696)	(77,098)	(68,428)	(61,887)
Administrative expenses	(148,772)	(118,712)	(98,057)	(87,300)	(80,579)
Impairment losses on financial assets	(5,075)	(702)	–	–	–
Other expenses	(582,022)	(426,534)	(415,807)	(378,692)	(297,598)
Finance costs	(2,599)	–	–	–	–
Share of profits and losses of Associates	(1,023)	–	–	–	–
(LOSS)/PROFIT BEFORE TAX	(146,028)	159,696	245,527	259,857	193,325
Tax	(2,933)	(30,344)	(17,458)	(19,767)	(15,335)
(LOSS)/PROFIT FOR THE YEAR	(148,961)	129,352	228,069	240,090	177,990
Attributable to:					
Owners of the parent	(161,936)	107,482	212,122	212,258	158,898
Non-controlling interests	12,975	21,870	15,947	27,832	19,092
	(148,961)	129,352	228,069	240,090	177,990

Five Year Financial Summary

ASSETS, LIABILITIES AND NON-CONTROLLING INTERESTS

As at 31 December

	2019 RMB'000	2018 RMB'000	2017 RMB'000	2016 RMB'000	2015 RMB'000
TOTAL ASSETS	2,458,372	2,546,794	2,207,356	1,802,868	1,518,463
TOTAL LIABILITIES	(520,086)	(439,354)	(436,080)	(428,436)	(404,877)
NON-CONTROLLING INTERESTS	(153,690)	(164,834)	(154,234)	(152,666)	(111,756)
	1,784,596	1,942,606	1,617,042	1,221,766	1,001,830